HISTORY OF THE MINISTRY OF MUNITIONS

VOLUME V

WAGES AND WELFARE

PART I

THE CONTROL OF MEN'S WAGES
Volume V

WAGES AND WELFARE

PART I

THE CONTROL OF MEN'S WAGES
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CHAPTER I.


I. The Settlement of Wages before the War.

(a) Wages and Industrial Unrest.

The adjustment of wages to changing industrial conditions is always a delicate and complicated task. The war, by accelerating industrial change in every direction, put a new aspect on the problem and compelled the adoption of new methods of dealing with it. On the Ministry of Munitions, as the authority charged with the organisation of the country’s industrial resources for the purposes of the war, fell the chief burden of devising and applying these new methods. Much had, however, happened before the Ministry was established; the Ministry’s policy is therefore intelligible only in the light of the changes that took place and the measures that were adopted between the outbreak of war and the passing of the Munitions of War Act. These in their turn require some understanding of the wages situation on the eve of the war.

The years immediately preceding the outbreak of war were years of exceptional industrial unrest, in which wage-rates and wage-relations were subject to frequent change. For a generation wage-rates had lagged behind the increase in the cost of living. The year 1900 being taken as 100, wholesale prices rose from 88·2 in 1896 to 116·5 in 1913 and retail prices in London from 91·7 to 114·8; the average rise in the wage-rates recorded by the Labour Department of the Board of Trade in the same period was from 90·2 to 106·5, the rise in the recorded rates of skilled engineers being even less, viz., 96·7 to 105. The rise in prices does not represent exactly the rise in the cost of living, since rents in most parts of the country rose only slightly; but the combined rise was sufficient to be felt as a hardship. Wage-rates again are not an exact measure of the wage-earners’ income, since an average of wage-rates makes no allowance for the movement of population from lower-paid to higher-paid occupations, for promotion of individuals to higher grades, for overtime, and for increased facilities of earning on piece-work due to general improvements in methods of production. But rates and their relation to the cost of living are the issues on which differences about wages usually turn. The workman does not regard it as a reason for accepting a lower nominal or real rate that he can increase his income by working longer hours or undertaking more responsible work; the increased yield of piece-rates, so far as it is not due to increased dexterity, he regards as his due share of the general increase in the productivity of industry; while a reduction in the rate of any trade, due to an influx of labour from lower-paid occupations, naturally strikes the workpeople in that trade as a loss, although there may be a net gain to the wage-earning class as a whole.

Since 1910 the adjustment of wages had been accompanied by a succession of trade disputes. Wage-rates had risen, on the average
keeping pace with prices, but the advances had been unevenly distributed in preceding years, and had not been sufficient to make up the ground lost. In the five years before 1910 the average number of disputes beginning each year was 456, and the average number of workpeople directly involved 211,000; in the years 1910–13 the average number of disputes was 947 and the average number of workpeople involved 915,000. The records of voluntary conciliation and arbitration boards reveal a similar increase in activity, the number of cases considered rising from an average of 1,734 in the earlier period to an average of 3,418 in the later. The figures for 1913 were 1,497 disputes, involving 689,000 workpeople, and 4,070 cases considered by conciliation boards. The work of the Chief Industrial Commissioner's Department under the Conciliation Act of 1896 showed a similar increase. It is worth noting, since one of the results of the war was to institute compulsory arbitration, that the proportion of disputes settled by arbitration in 1913 was smaller than in any of the previous nine years, and the chief national agreements providing for the settlement of disputes in munitions industries, those namely negotiated by the Engineering Employers' Federation, the Shipbuilding Employers' Federation and the Midland Employers' Federation, made no provision for arbitration.

(b) Organisation of Employers and Employed.

The relations between employer and employed were largely governed by collective agreements between employers' associations and trade unions. There was in the years preceding the war a marked growth in the membership of trade unions, which is illustrated in the following table:

<table>
<thead>
<tr>
<th></th>
<th>1910.</th>
<th>1911.</th>
<th>1912.</th>
<th>1913.</th>
<th>Estimated Industrial Population 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron &amp; Steel Manufacture</td>
<td>53,000</td>
<td>60,000</td>
<td>69,000</td>
<td>80,000</td>
<td>210,000</td>
</tr>
<tr>
<td>Iron founding</td>
<td>37,000</td>
<td>39,000</td>
<td>45,000</td>
<td>49,000</td>
<td>63,000</td>
</tr>
<tr>
<td>Engineering</td>
<td>177,000</td>
<td>199,000</td>
<td>236,000</td>
<td>272,000</td>
<td>684,000</td>
</tr>
<tr>
<td>Shipbuilding</td>
<td>75,000</td>
<td>82,000</td>
<td>92,000</td>
<td>97,000</td>
<td>181,000</td>
</tr>
<tr>
<td>Miscellaneous Metals</td>
<td>28,000</td>
<td>35,000</td>
<td>37,000</td>
<td>40,000</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total Metal, etc., Trades</strong></td>
<td>370,000</td>
<td>415,000</td>
<td>479,000</td>
<td>538,000</td>
<td>1,803,000</td>
</tr>
<tr>
<td>Cabinetmaking, etc.</td>
<td>14,000</td>
<td>17,000</td>
<td>18,000</td>
<td>25,000</td>
<td>144,000</td>
</tr>
<tr>
<td>Coachbuilding</td>
<td>12,000</td>
<td>13,000</td>
<td>16,000</td>
<td>20,000</td>
<td>36,000</td>
</tr>
<tr>
<td>Other Woodworking</td>
<td>13,000</td>
<td>15,000</td>
<td>17,000</td>
<td>19,000</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total Woodworking, etc.</strong></td>
<td>39,000</td>
<td>45,000</td>
<td>51,000</td>
<td>64,000</td>
<td>338,000</td>
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<tr>
<td>General Labour</td>
<td>119,000</td>
<td>227,000</td>
<td>252,000</td>
<td>391,000</td>
<td>—</td>
</tr>
<tr>
<td>Female T.U. Membership</td>
<td>38,000</td>
<td>60,000</td>
<td>79,000</td>
<td>100,000</td>
<td>—</td>
</tr>
<tr>
<td>Non-Textile Trades</td>
<td>731,000</td>
<td>752,000</td>
<td>757,000</td>
<td>916,000</td>
<td>1,174,000</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>245,000</td>
<td>514,000</td>
<td>515,000</td>
<td>700,000</td>
<td>—</td>
</tr>
<tr>
<td>Building Trades</td>
<td>157,000</td>
<td>173,000</td>
<td>204,000</td>
<td>249,000</td>
<td>806,000</td>
</tr>
<tr>
<td>All Unions</td>
<td>2,446,000</td>
<td>3,019,000</td>
<td>3,288,000</td>
<td>3,987,000</td>
<td>—</td>
</tr>
</tbody>
</table>
It will be noticed that the most remarkable increases in the period are in the organisation of general labourers, transport workers and women; the skilled men's unions, however, including as they did the irreplaceable workers in each industry, were the chief factor in collective bargaining. It will be noticed also that the number of trade unionists in a few industrial groups approximate to the number of persons engaged. The explanation is partly that general labourers and in many cases semi-skilled workers are organised outside the union specialised to the industry, and that the industrial population in any group includes clerical, transport and other workers likely to be outside these specialised unions: But the chief explanation is that trade unionism, except in a few very highly organised trades such as coal, was "patchy," the organisation being strong in most districts and firms, but very weak in some, or inclusive in the skilled grades and weak or negligible in the semi-skilled and unskilled grades. The existence of national unions had not brought about national rates of wages, standard rates being nearly always district rates and of varying authority at that; the standard time rate for example for a turner recognised by the Amalgamated Society of Engineers in October, 1913, varied from 24s. a week in Redruth to 46s. in Grays, with 31 intermediate rates, and many workers were regularly paid above the standard rate.

Outside the metal, engineering and shipbuilding group of industries, the workpeople affected by munitions contracts were not well organised. The general labour unions, especially the Workers' Union, were establishing sections for semi-skilled and unskilled labour in different industries and thereby supplementing the organisation of the more specialised unions; but they had not in 1914 succeeded in organising a majority of the workers in these grades. Among women especially organisation was weak. The chief women's union, the National Federation of Women Workers had at the end of 1913, 12,152 members, the Workers' Union had 5,200 women members, the National Union of General Workers, 4,380, and the Dockers, 4,806. If these figures are compared with the membership of the same unions after four years of State regulation of wages, it will be seen that State regulation is not necessarily hostile to trade union organisation and may very well be the reverse.

In the organisation of employers the local association was the important unit. In engineering most of the local associations (52 in number in 1912) were combined in the Engineering Employers' Federation, which thus represented (1912) 830 firms employing between 500,000 and 600,000 workpeople, or about 75 to 80 per cent. of the trade. In shipbuilding the National Employers' Federation not only gave the support of a national organisation to the local associations, but negotiated national wage-settlements. A large part of the miscellaneous metal industry of the Birmingham, North Worcestershire and South Staffordshire area, hitherto ill-organised, had been organised in the Midland Employers' Federation, formed in 1913, which had a collective agreement with the three chief general labour unions in the area, establishing minimum time-rates and providing a procedure for the settlement of disputes.
Negotiations about wages were the subject of collective agreements over the greater part of the metal, engineering and shipbuilding industries. In the engineering trades they had been governed until March, 1914, by an agreement made in 1898 and revised in 1907. This provided for the settlement of disputes without stoppage of work, in the first instance by deputation to the employer; or an official of the union could approach the local secretary of the employers' association; or either party could bring the question before a local conference between the local association of employers and the local representatives of the unions; failing settlement locally, the question would be referred to a central conference consisting of members of the executive board of the employers' federation and members of the central authority of the union or unions concerned. The agreement also dealt with the general principles governing piece-work, overtime, rating of skilled workmen, apprentices, and the manning of machine tools. The detailed working conditions were the subject of local agreement between local employers' associations and the unions. Wage-rates were not usually specified in agreements, but the national agreement laid it down that general alterations in the rates of wages in any district should be negotiated between the employers' local association and the local representatives of the trade union or unions concerned. In this the employers' policy corresponded with that of the chief union concerned. The Amalgamated Society of Engineers, while providing for a central control over finance, left wage-negotiations to the district organisations; indeed a revision of rules carried through in 1912 had very much cut down the powers of the Central Council to control the districts and correspondingly enhanced the activity and independence of the district authorities.

The parties to the agreement of October, 1907, with the Engineering Employers' Federation were in 1914 the Steam Engine Makers' Society, the United Machine Workers' Association, the Toolmakers, the Scientific Instrument Makers, and the two national unions of Smiths and Strikers. In addition the Electrical Trades' Union, the two Brassworkers' Societies, while not parties to the general agreement, were parties to the provisions for avoiding disputes. The Amalgamated Society of Engineers had withdrawn from the agreement and from a supplementary agreement, authorising and prescribing conditions for the premium bonus system, in March, 1914, mainly owing to its objection to the clause in the general agreement dealing with the manning of machines, but partly also owing to complaints of the delay in the settlement of grievances. The Central Council was, however, in September, 1914, authorised to enter into negotiations for a new general agreement, and agreed on a provisional procedure for avoiding disputes.

Similar provisions for preventing stoppages governed the shipbuilding industry; but in this agreement general fluctuations in wages due to the general conditions of the industry were the subject of national, not local, negotiation, and applied to all firms in the Federation and all trades, party to the agreement, at once. Such general changes could not be made until at least two conferences had been held to
discuss them, or within six months of the last general change, and they were limited at any one time to 5 per cent. on piece-rates and 1s. a week or 1½d. an hour on time rates. One important trade union in the industry, the United Society of Boilermakers and Iron and Steel Shipbuilders, withdrew from the agreement in 1912; it remained, however, a party to a number of local agreements of narrower scope.

The agreement between the Midland Employers’ Federation and the General Labour unions concluded in July, 1913, for twelve months, laid down standard rates of 23s. a week for adult unskilled male labour and 6s. for girls of 14 rising to 12s. at 21; piece-rates it left to be settled by mutual arrangement between the employer and workman, but guaranteed the workman’s day-rate irrespective of his piece-work earnings. It also provided for the settlement of disputes on lines similar to those adopted in the engineering trades.

In the whole of this industrial group the actual conditions of work and rates of pay were governed more by local agreements than by any national or even provincial settlement. The agreements were in most cases only in part reduced to writing, many of the factors being customary observances. Just as standard time-rates varied from district to district even for the skilled grades, so the standard week, allowances for overtime and night work, the arrangement of shifts, procedure for fixing piece-rates and other bases for payments by results, group payments and sub-contracting arrangements, varied. The Engineering Employers’ Federation was urging its constituent associations to substitute written agreements for unwritten custom, but the latter still regulated relations between employers and workpeople over the larger part of the field of their relations.

In the iron and steel trades the wages of the majority of the workpeople employed were regulated by sliding scales, under which the rate per ton paid to the workpeople was made to rise or fall in accordance with prescribed advances or reductions in the selling price of the product. This automatic provision for the general movement of wages had the effect of confining within very restricted limits the number of disputes between employers and employed. To deal with such as arose and to consider modifications and adjustments in the sliding scale, however, a number of conciliation boards existed. They were usually constituted of representatives of individual works, not of employers’ associations and trade unions; trade unionism in the industry was, however, so strong that the difference was not very material. There were no national agreements in these trades, the unit of organisation being usually the district.

**(c) Methods of Remuneration.**

The customs and agreements regulating wages illustrate well the complexity of the problems involved in any attempt on the part of the State to control wages. Methods of remuneration vary with the varying circumstances of different trades. In engineering, time-rates were the rule; these rates varied from district to district and from
craft to craft, so that in the aggregate they numbered some hundreds. Piecework was however allowed under the national agreement,\footnote{From which the Amalgamated Society of Engineers withdrew in 1914.} prices to be arranged in the shop, overtime and nightshift allowances to be paid; and the time rate to be guaranteed. Of the 267,000 workpeople covered by the returns under engineering and boilermaking in the Wages Census of 1906, 22.9 per cent. were piece-workers and 4.6 per cent. paid on some bonus system. Time wages with a bonus on output were common in blastfurnace work. Certain shipbuilding processes, especially riveting, plating and caulking, were usually done on piece-work, about one in three of the whole number of workpeople covered by the returns in shipbuilding being piece-workers. In iron and steel manufacture the more responsible work was usually paid piece-rates, although only 28.3 per cent. of the workpeople employed were piece-workers; many of the piece-workers were sub-contractors, receiving a tonnage rate, and paying time-wages to some or all of their helpers. In the allied industries, such as railway carriage and wagon building (67.6 per cent.), light iron castings (45.3 per cent.), cycles (52.8 per cent.), nails, screws, nuts, etc. (48.2 per cent.), the proportion of piece-workers was much higher.

The proportion of workpeople on bonus systems in engineering in 1906 was small. Between 1906 and 1914 a great deal of experiment in bonus systems took place. The limited amount of simple repetition in commercial engineering gave few opportunities for straight piece-rates. Any system of payment by results therefore that was to be of general application must provide for a large number of individual arrangements and allow a margin of error that is unnecessary where production is uniform and standardised. The system that seemed to employers to satisfy these conditions best was the premium bonus system—the system under which each job is timed, and the workman paid a bonus on his ordinary time-rate if he completes the job in less than the base-time.

Bonuses and piece-rates might be paid to the individual on his output or they might be collective, \textit{i.e.}, paid to a group in specified proportions on the group’s output. Certain unions were opposed to any system of payment by results, the chief unions in the woodworking crafts being particularly dogmatic in their assertions of the ill effects of such systems. On the other hand, piece-work was the rule in the minor metal trades.

Changes in the general level of wages were usually the result of special negotiation, which was usually conducted in the district, but might be, as in the case of shipyard labour, conducted nationally. In the iron and steel trades, which the demand for munitions was to affect, such general changes were made, as has been indicated above, automatically in accordance with a sliding scale.

In the coal-mining industry changes in the selling price were a principal, though not the sole, factor in determining changes in wages;
sliding scales were in operation in most fields, subject to a minimum below which, and a maximum above which, wages did not fluctuate.

The other provisions found in collective agreements had usually some bearing on the problem of wages even if they were not concerned directly with the fixing or varying of rates. The regulation of hours by the establishment of a standard week (or day) limited the amount of work that should be given for a given wage, and, in conjunction with provisions for special overtime rates, might give rise to earnings in excess of the nominal rate. The regulation of entry to the trade and the allocation of work or manning of machinery were parts of a policy which aimed at preventing any sudden influx into the trade and so at giving security to wages in it. Trade union policy may be said to aim at such a control of the conditions of employment as would serve to prevent any sudden or extensive change in wages to the disadvantage of the union members. Any alteration in the conditions of employment, such as those involved in a policy of dilution, might therefore involve a challenge to trade union policy (unless made with the consent of the union), and the attitude of the union would depend largely on the extent to which it considered that its standard rates were imperilled. Even if the representative leaders of a union were convinced of the necessity of a change, the working members would react instinctively against any proposal that threatened the security of their income.

(d) Collective Bargaining and Government Control.

The control of wages by voluntary collective bargaining, while it secured the continuous adaptation of wages to changing industrial conditions, was ill-adapted to dealing with changes so rapid and extensive as the war was to bring with it. The number of unions involved was great; an employer in the case of a large engineering works might have regularly to deal with more than twenty; and the extent of joint action between the different unions was limited. The number of consultations to be made and bargains to be struck was increased by the practice of negotiating changes in the district rather than nationally—a practice which also led to variations in the amount and time of advances in different parts of the country. The ordinary process of dealing with a disputed question, by reference from the works to the local conference and from local conference to central conference, although amply justified in ordinary times as a method of securing agreement and avoiding stoppages, was slow in itself, and the channels were liable to be clogged when there was any unusual number of difficult questions to be dealt with. Another obstacle to prompt adaptation to change was the condition of trade unionism itself, which exhibited many of the symptoms of a transition stage. The relations between unions in the same industry were being changed by federation and amalgamation; the distribution of duties between central and local authorities was a matter of controversy; the objects of trade unionism (if the articulate minority may be trusted) were broadening and becoming more revolutionary. The official spokesmen
of the unions were reluctant to commit their constituents, and often debarred by their constitutions from so doing, on most important issues. An organisation that is undergoing extensive internal changes cannot act promptly in its external relations; yet any general change could be introduced only by the consent of the unions. A final obstacle to easy handling of national wage-questions was the large number of unorganised workers, whose wages normally followed those of their organised fellow-workers, but could not be made the subject of any general change with ease or certainty.

Thus, while the governing conditions of the wages problem before the war were relatively simple—the existence of standard rates in most trades, established and changed by collective bargaining; a regular procedure, in a more limited but still considerable range of trades, for effecting changes either in rates or in conditions affecting wages; and the strike or lock-out as the ultimate resort in a deadlock—it was not a simple thing to base a policy on these conditions, once State interference with wages became necessary. The conception of the standard rate was simple, but the thing itself was very complicated, since rates varied with occupation and with district and differed very much in the extent to which they received recognition. Similarly collective bargaining was effected through an enormously complicated machinery of very varying efficiency. And the resort to a stoppage in cases of deadlock, though the only way that had been discovered of finding a solution that might be expected to stand, had its dangers and disadvantages multiplied manifold by a state of war.

Government interference with wages before the war had been very limited in extent. In certain trades, characterised by low wages, a large preponderance of women workers, and a lack of trade union organisation, Trade Boards had been established under the Trade Boards (Minimum Wage) Act of 1909. In coal-mining similar machinery had been set up under the Coal Mines (Minimum Wage) Act of 1912. The effect of these was to establish legal minimum rates; but these rates were actually fixed by a process very similar to that of voluntary collective bargaining. Outside these exceptional trades the chief contact between the Government and the settlement of wages was through the Chief Industrial Commissioner's Department of the Board of Trade. Under the Conciliation Act of 1896, the Board of Trade had powers to inquire into industrial disputes and to endeavour to bring the parties to a dispute together; to appoint, on the application of either party to a dispute, a conciliator, who should endeavour to effect a settlement by agreement; and to appoint, on the application of both parties to a dispute, an arbitrator who should settle by an award. The exercise of these powers ensured an intimate contact between the Chief Industrial Commissioner's Department and the industries of the country, although the great majority of wage-questions were settled without his intervention. His work assisted and supplemented the machinery of voluntary conciliation without seeking to supersede it, and in general the State may be said to have left wages to be settled by the interplay of economic forces which it did not seek to control.

(a) RISE IN THE COST OF LIVING.

On the outbreak of war there seemed no reason for interfering with, or even supplementing, this elaborate organisation for dealing with wages. The leaders of the workpeople's unions spontaneously recommended an industrial truce, and the number of workpeople involved in disputes commencing in the last five months of 1914 was only 23,000. The general economic changes that the war led to made it impossible, however, to stereotype wages, and in the early months of 1915 the industrial truce showed signs of breaking down. The defects of the ordinary provision for dealing with wages began to show themselves, and the Government took its first steps in the direction of regulating wages. By the time the Ministry of Munitions came into existence, these steps were still very limited and tentative; they were confined to supplementing rather than superseding the ordinary provision.

In the period between the outbreak of war and the establishment of the Ministry, changes in wages took place, but not of a magnitude to correspond with the changes that were taking place in the position of the wage-earner; they took place without any co-ordinating control by Government policy, and they were hampered by the existence of the industrial truce; they were uneven and partial, not uniform and general. They had the effect, therefore, of seriously altering the relations between the wages of different classes of workers without establishing any new basis, with the result that wages were in an unstable condition when the Ministry came into existence.

In the following table the general movement of wages is illustrated. The figures represent the effect of a change in the rate for a full week's work; they do not therefore show the effect of short-time or overtime. For the purposes of comparison some figures illustrating the change in the cost of living and the number of disputes are also given.

<table>
<thead>
<tr>
<th>Months</th>
<th>Percentage Rise in Retail Cost of Food over level of July 1914</th>
<th>Net Increase (+) or Decrease (-) in Wages reported to Board of Trade</th>
<th>Number of workpeople receiving an Increase</th>
<th>Amount of Increase</th>
<th>Number suffering a Decrease</th>
<th>Amount of Decrease</th>
<th>Number of New Disputes</th>
<th>Number of workpeople directly involved</th>
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2 Cf. Appendix I.
The reductions in wages in August and November, 1914, and January, 1915, were due to a fall in selling prices in industries and districts in which wages varied automatically with selling prices. The rise in February, 1915, is exclusive of a war bonus of 3s. and 2s. a week to railway workers. The great rise in May is accounted for by the advance, varying in the different fields, but normally about 15 per cent., in the coal-mining industry. The advance in June was subsequently supplemented by a 5 per cent. advance in cotton-spinning, arranged in July to date back to June. The large number of workpeople involved in disputes in July were almost all of them accounted for by the South Wales coal strike. The general result of the table is that wages were “frozen” from August, 1914, to January, 1915; from February onwards unprecedented advances in money wages were secured by those classes of workmen whose labour was in demand for the purposes of the war; but even these were not sufficient to compensate for the increased cost of living. These two factors it was, the rise in the cost of living and the growing demand for labour for war purposes, that made wage-changes inevitable.

The rise in the cost of living was the ground on which, almost exclusively, trade union spokesmen in conferences and arbitration hearings based demands for increases in wages. The profits that employers were alleged to be making were adduced as an additional reason, but the demand was pressed even when no attempt was made to rebut the evidence brought by employers that profits were small. It would be difficult, the spokesmen argued, to induce the rank and file of the unions to continue to observe the industrial truce, unless the rise in the cost of living was stopped or wages adjusted to meet it. Members of the Labour Party in Parliament protested against the rise and argued that, if the prices of commodities were allowed to rise in accordance with the law of supply and demand, wage-earners should be free to take advantage of the same law and raise the price of labour. The Prime Minister’s statement on 11 February, 1915, in the House of Commons on the rise in the cost of living, in which he gave the impression that it was unavoidable and that little could be done to check it, was strongly criticised by Mr. Clynes, Mr. Anderson and others, and provoked much resentment among organised workers in the country. Of the two alternatives, keeping prices down and forcing wages up, the trade union leaders expressed themselves as preferring the former; they were compelled, however, to aim at the latter.

The situation was the more difficult, because wage-earners were feeling the pressure of the rise in the cost of living before the war. They had been prevented in many cases by long term agreements from securing a corresponding advance in wages, in spite of the fact that industry generally was prosperous. In the cotton spinning industry, for example, wages were governed by a five years’ agreement made in 1910. In the engineering trades, wages were largely governed by local agreements with a term of three years, and when, as in the Clyde and London districts, an agreement was due to terminate towards the end of 1914,

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1 e.g. 15 March, 1915. Parliamentary Debates, 1915 (H. of C.), LXX, 1823
the men were looking forward to its termination to give them an opportunity of securing compensation for the rise in the cost of living that had taken place since the agreements were made.

The negotiation of new long-term agreements was not easy in the abnormal conditions of war. The rise in the cost of living proceeded all the time negotiations were going on, markets had changed and were changing, the labour situation was changing every week. In spite of this the normal procedure was followed in a number of cases and new long-term agreements concluded. Thus in November new agreements were made in the engineering trades in London on the basis of a 3s. advance in time-rates, in Birmingham and Leicester of a 2s. advance, the new rates to stand for two years in each case. On the Clyde, although the form and amount of the unions' claims were determined before war broke out, and were based on the pre-war rise in cost of living and the pre-war prosperity of the industry, quite apart from war changes, no agreement could be reached, and after a serious strike the question was referred for settlement to the Committee on Production, who, on 23 March, awarded an advance of 1d. an hour (half the union's claim) as a war-wage.

The employers' case against making advances rested on the fact that their contracts were usually based on a labour cost based in its turn on a long-term agreement. Contracts made before the war or during the depression of August, 1914, were still running.1 It proved impossible, however, even where agreements had still some time to run, to refuse advances. The example was set by munitions centres. In the Sheffield engineering trades an advance of 1s. a week was granted early in October, in spite of a three years' agreement raising wages 2s. a week concluded only the previous March. A further 4s. was conceded in March, 1915, when other districts were getting their first advance. On the Tyne a similar advance was granted in March, although wages were governed by an agreement with fifteen months still to run. The first award of the Committee on Production, a national award in the shipbuilding industry of 4s. a week, 1d. an hour or 10 per cent. on piece-rates, on 1 March, set a standard generally adopted in the ensuing months. These advances were supplementary, designed to meet the increased cost of living due to the war, and were extended generally to the engineering trades in the course of the spring and summer of 1915. A similar movement was going on outside the munitions industries, the railway workers receiving a bonus of 3s. or 2s. in February and the miners an average advance of about 15 per cent. in May.

Apart from advances in the standard district rates and bonuses extending to all workpeople, individual advances and bonuses were common wherever the demand for munitions made itself felt. Bonuses on output, bonuses on time-keeping, "hallelujah" rates, "time and a bit," remunerative systems of payment by results, and abundant

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1 Committee on Production Hearing: Manchester Engineering Employers: 19 April, 1915.
overtime were offered to induce an extra application from the worker or to attract workers from other firms and districts. Even where there was no intention of raising wages, abnormal earnings were in many cases made possible by the fixing of piece-rates at a high level, on work of which they had no experience, by firms undertaking the manufacture of munitions for the first time. Employers who needed labour, however, needed it very badly, and were willing to offer concealed advances, where for any reason a general advance in the district rate was objectionable. The growing shortage of labour was making itself felt and enabling the unions to press their demands.

(b) The Demand for Labour.

Some measure of this shortage and of the general demand for labour is afforded by the Board of Trade returns on the state of employment.

The first effect of the war was to depress employment outside a limited range of munition industries. Certain industries, notably cotton, were already affected by a general decline in employment due to causes quite unconnected with the war; and the extent of the decline was masked by the endeavour of many employers to avoid discharging any portion of their staffs by putting all upon short time. There was, however, in August an increase in the number of members unemployed in the case of all the trade unions making returns to the Board of Trade except shipbuilding. The average increase was 43 per cent., from 2.8 per cent. to 7.1 per cent., an average made up of figures that varied from an increase of 13.8 in the case of cotton to a decrease of 0.3 in the case of shipbuilding. Even in the case of industries like engineering and coal mining the first effect was a contraction of employment, since the volume of private work adversely affected by the war was so much greater than the volume of public work to which the war gave rise.

The first effect of the war, therefore, on wages was adverse. Although reductions were unusual, the movement upwards that characterised the first part of the year was checked, and the workpeople were unable to secure any compensation for the increased cost of living. The Government's policy of concentrating munitions contracts on a small number of established armament firms accentuated the evil, since it prevented the war demand from affecting any but a limited number of areas. The result was that engineering firms in Manchester and shipbuilding firms in Glasgow took on private contracts, with a view to keeping their works going, at prices that would not allow of an advance in wages. The influence of the setback to trade at the outbreak of war continued to be felt as long as these private contracts ran, and constituted an obstacle to wages advances as late as the following spring, when food-prices had advanced over 25 per cent.

Where munitions contracts were placed, on the other hand, advances were made in order to stimulate workpeople to greater exertions and to attract labour from other districts. Such advances
as those in the engineering trades in Sheffield in October and in London in November destroyed the normal relation between rates in these districts and rates in other engineering centres. Government contracts, while improving the demand for labour in the country as a whole, exercised an uneven influence; some industries they hardly helped at all, and they affected only certain districts in the industries on which their influence was greatest.

The effect of enlistment was felt more generally. It was not, however, until December that it overtook the contraction in men’s employment, and, of course, it did not, except indirectly, affect women’s employment at all.

The industries affected by Government contracts began to draw on other industries for labour to replace the labour of enlisted men in October; by December they had drawn in more labour than they had lost by enlistment. But there was a large group of industries, of which building and cotton were the most important, in which the contraction of employment in December was still much greater than the reduction by enlistment in the supply of labour. Moreover, every industry showed a considerable amount of short time, while overtime to a greater or less extent was being worked elsewhere in the same industry.

There was a general improvement by February; but depression persisted in certain industries, and short time was being worked even in the industries most affected by Government contracts. By April the first effect of the war may be said to have ceased. The number of women in employment reached pre-war level; the contraction of employment among men had already by December been overtaken by the proportion of men enlisting. A great deal of overtime was being worked, while few were on short time.

(c) The First Advances.

The form and basis of the advances that the workpeople secured varied very much. In the first period, while the attempt was still being made to maintain pre-war rates unchanged, such changes as took place were in the form of ordinary advances, taking the place of lapsed agreements, establishing new rates, or following the movement of selling-prices in accordance with a sliding scale. In 1915, when it was becoming obvious that some alteration in wages was unavoidable, the practice of giving a bonus, explicitly supplementary and designed to meet the increased cost of living, became general. Existing standard rates and agreements were, nominally at any rate, left intact.

When the Committee on Production, early in 1915, intervened in wage-settlements, it questioned representatives of the two sides on the bearing of war conditions on permanent agreements.1 There was general agreement that the two should be considered separately, and the Committee, in making its awards, adopted the form of a bonus

1 e.g., Hearing of Manchester Engineering Trades, 19 April, 1915.
or war wage to be "recognised as due to and dependent on the existence of the abnormal conditions now prevailing in consequence of the war."

Inevitably other questions than the cost of living, questions, for example, affecting allowances for "dirty" work, overtime and methods of remuneration, came up for consideration, and the Committee was prepared to consider them, if necessary, provided that no stoppage of work took place; but the necessity was regarded as regrettable. "We do feel as a Court very strongly," said Sir Francis Hopwood from the chair on one occasion, "that questions of that sort, which rather govern the constitution and the working of trade over long periods of time, in fact the life history of trade, should, if possible, be deferred until after this grave national crisis has passed away." Mr. Arthur Henderson, the spokesman of the workpeople at the hearing, concurred.¹

Even when old agreements terminated and new agreements fell to be negotiated, there was a strong body of opinion that only temporary adjustments should be made, any change in the basic conditions of employment being deferred until after the war. This opinion was held by the Prime Minister, and was the basis of the Chief Industrial Commissioner's recommendations after his enquiry into the South Wales Coal dispute in June, 1915.

"The claim that a new wage agreement should now be settled on normal peace lines, with an attempt to dismiss from the mind the conditions of war, is, in my opinion, impracticable. Certain essential features of such an agreement would be inoperative during the war, and the possible conditions after the war, to which it is thought the new wage agreement should apply, may be quite as abnormal as the present conditions. I suggest, therefore, that the conditions both during and for some time following the war are likely to be so different from ordinary peace conditions, to which it is admitted the wage agreement is intended to apply, that any such agreement would be in practice valueless."²

That this view was not confined to official circles is shown by the speeches of Labour Members in Parliament. Mr. Anderson, for example, while pressing the Government to take action to stop the rise in the cost of living, deprecated any attempt to exploit the present difficulties. "Workpeople," he said, "are in a better position than ever they were to take advantage of the law of supply and demand for themselves if that is going to apply to the question of the price of food. I hope that neither workpeople nor employers are going to do anything of the kind."³

There was hesitation and difference of opinion as to the proper basis of such bonuses. Should the bonus be proportionate to existing rates, in which case the higher-paid worker would get the larger bonus? or proportionate to need, in which case the lower-paid worker would get

¹ Committee on Production Hearing: Bristol Channel Engineering and Shipbuilding Trades, 23 March, 1915.
² M.W. 20552.
³ Parliamentary Debates, 1915 (H. of C.), LXX, 1823.
the larger bonus? or should it be uniform for all workers? If it was to be uniform, should it take the form of a definite weekly sum payable to time-workers and piece workers alike? or should it take the form of a definite sum to time-workers and a percentage on earnings in the case of piece-workers? Finally, should it count as part of the ordinary wages for the purpose of calculating supplementary payments, such as overtime? Every variety was tried, and consistency had not been attained when the war ended. Thus, the settlement on the railways in February, 1915, differentiated between workers earning less and workers earning more than 30s. a week, and gave the higher bonus to the lower-paid class; the awards to the miners in May were percentage advances and therefore proportionate to earnings. In March, in the engineering trades, there were advances made in Sheffield, in Barrow, on the North East Coast; in the case of the first the skilled grades received 4s. and labourers 3s.; at Barrow the skilled men received 3s. and the labourers 4s.; on the North East Coast both received 4s. Some local authorities discriminated between married men and single men, and in at least one important branch of private employment the same was done. On the whole the workpeople’s representatives objected to such discrimination, on the ground that the different workers were “expending the same labour energy”; they objected also to overtime earnings being brought into account and used as an argument against advances proportionate to the increase in the cost of living. Employers’ spokesmen varied, in some cases objecting to flat rate advances, in another arguing that an advance to meet the cost of living should take no account of the differences between the rates of different grades. For the elimination of such local variations a national authority was needed. This was provided ultimately by the Committee on Production; but the variations persisted long after the Committee was established.

This attempt to treat the war period as a thing apart was obviously influenced by the general belief that the duration of the war would be short. Most of the early war bonuses were fixed for the duration of the war. Had it been possible systematically to keep war conditions and the normal basis of wages apart, much subsequent trouble might have been saved; but in practice many agreements were made, taking the place of lapsed agreements or establishing an entirely new basis in a trade, which took the form and were intended to have the effect of agreements made under normal conditions. A notable example was the South Wales Coalfield settlement of July, 1915, which, in spite of the Government’s opposition, in effect conceded the workpeople’s claim to a new agreement.

Throughout the first year of the war the spirit of the industrial truce predominated. The Government hoped to stereotype the rates

1 Committee on Production Hearing: S. Wales Copper Works v. Dock Wharf, etc., Union, 21 May, 1915.
2 Committee on Production Hearing: Clyde Smiths and Strikers, 27 April, 1915.
3 Committee on Production Hearing: Manchester Engineering Trades, 19 April, 1915.
4 Vol. IV, Chap. I, Sect. 3.
obtaining when war broke out, and the trade union leaders were just as anxious to confine changes to the barest adjustment to meet the rise in the cost of living. Conditions, however, were such as to disturb the pre-existing rates of wages and the relations between rates of different classes. Owing to the action of individuals, rates and earnings tended to rise in certain industries and certain districts, and might have been forced higher, had Labour exploited its opportunities to the full; in other industries and districts, earnings fell and rates might have been depressed, had employers exercised pressure in that direction. On the whole both parties showed great restraint; the number of general changes (apart from changes under sliding scales) in the first six months was small, and any attempt on the part of Labour to exploit the country's needs was discountenanced by its leaders. The big changes that began in February, 1915, were far from compensating all workers for the rise in the cost of living. The engineering and shipbuilding trades showed a general advance of 3s. or 4s., coal-mining an average of about 15 per cent., iron and steel rather more; the equally well organised cotton industry secured no advance till June, when the spinning section secured a bonus of 5 per cent. The well-organised but less highly paid railwaymen received 3s. or 2s., transport workers at the ports usually more. In general, advances were secured where the demand for labour was greatest and was backed by organisation; in other words, wages were settled in much the same way as in peace time, by the relation of supply and demand. The same conclusion is suggested by a comparison of advances in different districts of the same trades; munitions centres showed advances long before other centres, and retained their advantage when general advances were made.

From the point of view of the subsequent problems of the Ministry of Munitions the irregularity of the advances is the most important feature of the year. Instead of a general movement of employment with a corresponding movement of wages in all industries, there were sporadic movements. Unco-ordinated individual, local and sectional advances took the place of general advances. Departures from standard rates were common, bonuses and other extra payments being made to individuals and groups to stimulate their exertions or merely to retain their labour. Even where no advances were made in the rate of remuneration, opportunities of making exceptional earnings were common on overtime or some system of payment by results.¹

The ordinary difficulties of settling wages questions were, therefore, accentuated by the time the Ministry of Munitions was established

¹ In a hearing of the Clyde Engineering and Shipbuilding Trades before the Committee on Production, on 22 March, 1915, the employers' representative stated that a comparison of average earnings between four weeks in June and four weeks in December, 1914, showed, on Government work of all classes (returns from 26 firms), an advance of 23·5 per cent., on marine engineering for warships, an advance of 26 per cent., Government and merchant work (returns from 77 firms), an advance of 20·5 per cent. Yet overtime in the whole district averaged only 7 hours per man, and there had been no advance in rates (Cf. Appendix I).
and entrusted with its limited powers of controlling wages. For the comparisons between district and district and trade and trade, and between changes in the cost of living and changes in wages, which form the staple of the pleadings on conciliation boards and before arbitration courts, could lead to no stable settlement when relations were changing as much and as frequently as in the first year of the war. The industrial truce assumed the maintenance of pre-war rates as the basis of industrial peace; the alteration in these rates, in accordance solely with changes in the supply of and demand for labour, undermined that basis.


(a) Wages and Labour Supply.

In the first year of the war the Government was reluctant to face the issues that would be involved in any policy of controlling or adjusting wages. Burdened with other responsibilities and relying on the industrial truce, it aimed, so far as possible, at maintaining pre-war wages intact. Even after considerable changes had taken place, on the eve of the establishing of the Ministry of Munitions, the view was still authoritatively held that the war bonuses conceded between February and June constituted a settlement by which the Government should stand. But the problem of munitions supplies, which was leading to an ever-increasing extension of Government control of industry, was inseparably linked with the problem of wages. In the first place, the output could not be increased without either increasing or economising the supply of skilled labour, and the attempt to secure such increase and economy turned largely on questions of remuneration; in the second place, output was endangered by stoppages due to disputes over wages.

The bearing of remuneration on supply was brought out first in the relatively unimportant case of allowances to transferred workers. The protracted negotiations to which it led are recorded elsewhere; they are important in the history of wages, not only because they constituted the first interference by the Government with the course of wages and showed that such interference was practicable, but because they are typical of the way in which Government action directed

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1 "The Committee on Production have already given nearly forty decisions on wages questions covering directly about 750,000 workpeople, and agreements and decisions on similar lines have been adopted in many other cases, the total involving in the aggregate very large additions to the wages bill. Such a process cannot be again followed without serious difficulty . . . The local leader on the Clyde has made no secret of his determination to exploit to the utmost the needs of the nation for the benefit of the members of his Union . . . The continued increase in the prices of food and other articles seems likely to be again used as a cover for the exercise of the power which, owing to the shortage of labour, is now in the hands of many Unions." Memo. by Sir George Askwith, 1 June, 1915. (Hist. Rec./R/180/39).

2 Vol. I, Part II, Chap. II; Part III, Chap. III.
to a specific and limited object was used as a precedent in support of a general claim. The Shipbuilding and Engineering Unions cited the payment of subsistence allowances to mobilisation labour when they demanded similar allowances in all cases in which labour was transferred from one district to Government work in another. The shipbuilding conferences on the Clyde and Tyne in November and at Carlisle in December, and the engineering conferences at Sheffield in December, all broke down on this point, although there were other but less important points of disagreement. In principle the demand was conceded by the War Munitions Volunteer scheme adopted by the Government on the recommendation of the National Advisory Committee in June, 1915.\(^1\) By this scheme it was hoped to place a supply of mobile skilled labour at the disposal of the Minister of Munitions for employment wherever the exigencies of Government work required; travelling expenses and subsistence allowance were a condition both of mobility and of voluntary enlistment.

The opposition of employers was due not only to the expense involved; this might have been transferred to the Government; but rather to the reaction of allowances upon their other employees. Complaints were made that the Admiralty terms for emergency workers had an unsettling effect on the other workers, who received no allowance, and provoked demands for equivalent wage advances. The Shipbuilding Employers' Federation argued that the additional payments demanded by the unions would merely result in men changing their jobs in order to qualify for them, and thus increase costs without increasing output. The unions' case was that travelling and subsistence allowance were the established custom of the trade when men were employed away from home, and the necessary labour would be forthcoming if this custom were extended to the new cases. The institution of a special corps, subject to special obligations which marked them off from other workers, met the difficulty, since it made it possible to extend special privileges to members of the corps without provoking comparisons which would cause a general demand for these privileges. Even so, there was hesitation on the part of large employers about taking members of the corps.\(^2\)

Similar problems arose over the employment of Belgian immigrant labour and imported Dominion labour. Complaints were made by the unions that Belgians were being employed at rates or on conditions inferior to those of British labour on the same or similar work. To prevent any such evil the recruitment of Belgian labour for munitions work was confined to the Labour Exchanges, and the granting of rates and conditions not inferior to those of British labour required of contractors. The introduction of Dominion labour was at first opposed by the chief armament firms on the ground that it might cause trouble with the other workers; when, subsequently, a number of Canadian engineers were introduced, the terms of employment, though including fares and a guarantee of six months' employment, included no subsistence allowance.\(^3\)

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1 Vol. IV, Part I, Chap. I.  
2 Ibid.  
3 Vol. I, Part II, Chap. I.
(b) The Treasury Conferences of March, 1915.

The question of allowances was important only on the assumption, made by the trade union leaders, that there was in the country an adequate supply of skilled labour that merely needed transferring to Government work. Employers from the outset took the view that the supply would be inadequate to the need, and the Government, as represented by the Board of Trade, came to hold the same view. The problem therefore presented itself as one of economising and making the most effective use of the limited supply of skilled labour available. The problem was a problem of wages, directly, because it raised the question of the rates of less skilled workers introduced to skilled men's work and of skilled workers transferred to more responsible jobs, and also indirectly, because the rules and practices governing the allocation of work and the methods of remuneration were the principal safeguards on which the skilled worker relied for the maintenance of his standard rates. Stoppages, again, which it was essential to prevent, were due more frequently to wages disputes than to any other cause, and the frequent change of job by workmen attracted by the chance of higher wages was another failure of economy, which could be dealt with only by restricting the freedom of movement of the wage-earner or controlling wages.

The question of the rate arose as soon as the proposal to introduce labour of less skill to skilled men's work was put forward. The sanctity of the standard rate is the basis of trade union policy. At the shipbuilding conference on the Clyde on 9 November, 1914, the rates to be paid to the unskilled men whom it was proposed to introduce was one cause of difference. The problem was more important in engineering, and here the employers' federation met the unions' claim in principle. At the third conference of the Federation with the unions, convened in Sheffield on 13 January, 1915, as a result of an appeal to the two sides from the War Office to come to agreement, the employers in their proposals undertook, "That workpeople shall receive the rates of wages and work under the conditions recognised in the shop in question for the trade at which they are for the time engaged." This conference failed to reach agreement; but agreement was reached, so far as the production of shells and fuses was concerned, at a subsequent conference on 5 March, held after the two sides had met the Committee on Production separately. The rate was safeguarded more specifically by making the district practice the standard: "Where semi-skilled or female labour is employed in place of skilled labour the rates paid shall be the usual rates of the district obtaining for the operations performed." Later in the same month, at the Treasury Conference of unions concerned with the production of munitions, the question was considered again and a settlement embodied in the following formula:

"Where the custom of a shop is changed during the war by the introduction of semi-skilled men to perform work hitherto
performed by a class of workmen of higher skill, the rates paid shall be the usual rates of the district for that class of work.

The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings."

The last sentence was inserted to safeguard the interests of skilled men who might be transferred to more responsible work which carried with it diminished opportunities of earning. The guarantee of rates contained in the first clause was intended to cover time rates, that in the second piece-rates; the words "time and piece" were, however, inserted before the word "rates" when the agreement was incorporated as Schedule (2) in the Munitions of War Act the following July.

Thus the principle that the rates of the skilled men, whose province was to be invaded by less skilled labour, should be guaranteed was formally accepted by the Government and by them imposed on employers. But the subsequent history of the control of women's wages was to show that the conferences had been very far from anticipating and providing for all the possible questions that might arise in the application of the principle. The final formula was indeed as precise as is necessary in a voluntary collective agreement that can be referred back for interpretation or amendment to the parties that adopted it; it lacked the precision and elaboration needed in a rule that is to be enforced by legal process in the courts.

A guarantee of the district rates was only one method by which the skilled workers' representatives sought to secure their constituents' position. Much more serious than any temporary departure from these rates was the menace to them in the future involved in the breaking down of the various safeguards on which the skilled man's superior rates depended. More stress was laid at the Treasury Conferences on this aspect of the question than on any other. The Chairman of the Amalgamated Society of Engineers put their difficulty very clearly:

"The most grave aspect of the case is this. What is going to happen after the termination of the war, in regard to a lot of people who will be brought into the engineering industry, who have not the necessary credentials and qualifications for the work? That is what we are concerned about. Because the introduction of unskilled and semi-skilled labour into this industry is a standing menace to the skilled. We have no desire to prevent any one rising in the social scale, but we do not think we are called upon to allow him to rise in the social scale to the detriment of the skilled workers."
At the second Treasury Conference between the Government and the Amalgamated Society of Engineers, Mr. Brownlie again devoted the first and longer portion of his speech to explaining the importance to the skilled men of the safeguards and privileges it was proposed to suspend. Mr. Button, another member of the Executive Council, put their position very plainly:—

"... we represent certain interests—if you like, vested interests and a monopoly in skill which it is our duty to safeguard. ... The job for which we are paid is to protect the interests of the operative engineer."

Mr. Ryder, an Organising District Delegate, explained that it was the attitude of the working members that they had to consider:—

"It is not altogether so much that we require to be convinced as our members generally ... if we can go to our members with the present needs accurately defined, and with the safeguards accurately defined, then we can do some good and can convince our members and carry them with us. ..."

Another delegate reached the heart of the trouble in a question he put to Mr. Lloyd George:—

"... could you see your way clear to give guarantees and assurances that, at the end of the war, semi-skilled men will be removed?"

The Chancellor of the Exchequer: "That is an essential part of the bargain."

The Delegate: "But could you devise ways and means of eliminating the skilled knowledge which the semi-skilled men will have acquired?"

The Chancellor of the Exchequer: "Well!"

To meet these very natural fears the Committee on Production in their interim report had recommended that employers should give a guarantee to restore pre-war conditions when the emergency was past. The same undertaking was embodied in the Shells and Fuses Agreement concluded between the Engineering Employers' Federation and the engineering skilled unions on 5 March, and an amplified version of the Committee on Production's formula was embodied in the Treasury Agreement of 19 March. Even then the Amalgamated Society of Engineers were not prepared to recommend the agreement for adoption by the unions; they required also definite assurances that the sacrifice of their safeguards should be for the benefit of the State alone and that the responsibility for restoring the safeguards would be accepted by the Government. These assurances the Government gave them, supplementing the Treasury Agreement of 19 March by a memorandum of 25 March, putting it on record that profits on war work were to be limited, relaxation of trade practices to be restricted to war work, war work to be certified as such by the
Government, the undertaking to restore conditions to be extended by analogy to new inventions, and the influence of the Government to be used to restore pre-war conditions.

The suspension of demarcation rules was refused by the shipbuilding unions in the shipbuilding conferences, but accepted as part of the Treasury Agreement to which they were signatories. It was accepted by the engineering unions by the Shells and Fuses Agreement, subject to the condition that the making of tools and gauges and the setting up of machines should be restricted to fully skilled men of some branch of the industry. The question of methods of remuneration arose in the shipbuilding conferences, the employers urging that the additional incentive of an extension of piece-work would increase output and so compensate in part for the shortage of labour. Similarly in engineering, employers in many cases introduced or extended piece-work and bonus systems, to which much of the new war production lent itself. The Amalgamated Society of Engineers had, however, just before the war withdrawn from the agreement with the Employers’ Federation recognising these methods of remuneration, and there was a general prejudice against payment by results in trades with time-work traditions, due to the fear that in the process of fixing piece-rates for varying kinds of work and bargaining with individual workmen, the employers would find opportunities of depressing standards of wages. In the Treasury Agreement no explicit reference to methods of remuneration was made; but the extension of systems of payment by results could be construed (and subsequently was construed) as falling under the head of relaxation of trade practices, essential to acceleration of output.

The Cabinet’s other great object in convening the Treasury Conference, the suspension of the right to strike, had as important a bearing on wages. The trade unions recognised in principle that strikes to secure increased wages were inadmissible, but the rise in the cost of living and the difficulty in securing any corresponding adjustment of wages made it difficult for them to restrain their followers. Their difficulty was referred to by Mr. Ryder in the second Treasury Conference, and on more than one occasion by Labour Members, who were also trade union officials, in the House of Commons. It should be noted that it was an embargo on stoppages, not an embargo on advances, that Mr. Lloyd George asked for; but the comparison of wages advances and actual strikes made above suggests that the one was connected with the other.

It was the more difficult for trade union leaders to restrain their members from pressing their claims by the strike, since piecemeal advances were showing the possibility of higher wages on every side.


“Mr. Arthur Henderson: You do not want to prevent our men making an effort to get something, but you do not want them to stop work.

“The Chancellor of the Exchequer: That is it; we do not want them to stop work.” Hist. Rec./R/180/17.)
These piecemeal and individual advances were the inevitable outcome of attempting to prevent a general rise in the wages of a class of labour that was in keen demand when the cost of living was steadily rising. It led to an unnecessary movement on the part of workpeople and a restlessness on the part of those who did not actually move which constituted a serious obstacle to smooth working and increased output. The ill-effects of this "enticement" of labour by the offer of high wages were brought to the notice of the Board of Trade, when it undertook its canvass of employers with a view to securing the release of skilled labour for munitions in January, 1915, and they were represented very strongly to the Armaments Output Committee by deputations from Birmingham and Manchester in April. The evil was realised by the Committee, the Chairman stating that since the previous August, of every 100 men who had gone to Elswick 35 had left, and that at three works of Messrs. Vickers the number of men leaving in April and May amounted to nearly half the number taken on. A "labour turnover" of this extent was a novelty in the United Kingdom; that it was due to the breaking of the normal uniformity of rates for identical grades is suggested by a comparison with the United States, where standard district rates in engineering are almost unknown and an even greater "labour turnover" is normal.

The development of the Government's policy in relation to the supply of skilled labour is described elsewhere.

(c) Appointment of the Committee on Production.

Wages questions, like the other problems involved, were left in the first instance to the ordinary machinery of collective bargaining. As it became obvious that the necessary changes in trade practices would be delayed and the preservation of industrial peace would be endangered by the slow procedure of voluntary conferences, the Board of Trade in December intervened in a conciliatory capacity.

No great success attended this effort, and in January and February the Government began tentatively to consider steps, on the one hand, to conciliate labour, by allotting to the workpeople a share of the profits of manufacture for war purposes, on the other hand, to coerce labour by making striking and inciting to strikes punishable offences. The first part of this policy was announced by Lord Kitchener in the House of Lords on 15 March. Objections however were raised in private conferences by the employers concerned; it was difficult to fit in Woolwich and other Government establishments with such a scheme, and it was discovered that labour itself did not like the policy. The other part was deferred on the advice of the Chief Industrial Commissioner until a final attempt should have been made to secure a suspension of the right to strike by agreement.

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1 Armaments Output Committee Printed Minutes, pp. 5, 10.
3 Vol. I, Part II.
While these measures were still under consideration on 4 February, the Committee on Production, consisting of the Chief Industrial Commissioner with a representative each of the Admiralty and the War Office, was appointed "to inquire and report forthwith, after consultation with the representatives of employers and workmen, as to the best steps to be taken to ensure that the productive power of the employees in engineering and shipbuilding establishments working for Government purposes shall be made fully available so as to meet the needs of the nation in the present emergency," and this Committee's reports shaped the policy finally adopted.

The first report, issued on 16 February, after conference with the shipbuilding unions and employers, dealt with the loss of time in shipyards due to broken squads of riveters, and recommended that the Government should call on employers and unions to agree on some method of making up broken squads, or, if they were unable to agree, to refer any outstanding differences to the Committee "for immediate and final settlement." The second report, issued on 20 February, after conference with the engineering unions and employers, dealt with the production of shells and fuses, with avoidance of stoppage of work and with guarantees that changes should be for the duration of the war only. Under the first head it pointed out the evil of any restrictive rules or customs, and recommended, first, that the Government should require its contractors to give an undertaking not to cut piece-rates unless methods of production were materially changed, and, secondly, that an increased use should be made of female labour. Without further intervention on the part of the Government the employers' federation and the unions were able to give effect to these recommendations in the Shells and Fuses Agreement of 5 March. Under the second heading, they recommended that the Government should ask the adhesion of its contractors and the trade unions to an undertaking to refrain from stoppages in Government work and to refer any differences that could not be settled to an impartial tribunal to be nominated by the Government. The Government at once acted on this recommendation, and nominated the Committee on Production itself to act as the impartial tribunal; thus the Committee was placed in a position that was subsequently to make it the chief influence in controlling wages in the country as a whole. Under the third head the report suggested a form of guarantee, to be signed by all Government contractors, safeguarding the unions against any permanent sacrifice of the control they were able to exercise over wages by their rules and practices, and again recommended that any difference in the adjustment of changes under this guarantee should be referred for settlement to the impartial tribunal. The third report, issued on 4 March, recommended the suspension of all demarcation restrictions, subject to certain safeguards, the chief of which were the maintenance of the rate for the job, the keeping of a record of all changes, and the guarantee of restoration after the war; and the utilisation of semi-skilled and unskilled labour on work normally done by skilled men, subject to the guarantee of restoration recommended in the second report. In cases of disagreement the matter
was to be referred for settlement in the case of the suspension of de-
marcation restrictions to the Board of Trade, in the case of the utili-
sation of semi-skilled and unskilled labour to the impartial tribunal
recommended in the second report. The fourth report, which was not
published, pointed out the necessity, if labour was to be induced to
sacrifice the practices by which it exercised its control over wages,
of limiting the profits of the employers for whom they worked;
it thus foreshadowed the "bargain" concluded in the Treasury
Agreements of 19 and 25 March, 1915, and embodied in the Munitions
of War Act the following July. On 1 March the Committee issued its
first award as an arbitration court; the award was a national award,
in settlement of a difference between the Boilermakers' and Ship-
wrights' Societies on the one hand and the Shipbuilding Employers' Federation on the other, and granted 4s. a week (or 1d. an hour) to
time-workers and 10 per cent. to piece-workers, "to be regarded as
war wages and recognised as due to and dependent on the abnormal
conditions now prevailing in consequence of the war." The unions
had claimed 6s.

The policy of the Committee was to rely on the moral authority
of an appeal from the Government in time of war. This authority had
enabled them to settle the Clyde strike at the end of February, and was
still preferred to statutory powers. The reports did little to elaborate
the terms on which the suspension of the various safeguards to wages
should be effected and adjustments of wages made to meet the changing
economic conditions. This they left to be settled by collective bargain-
ing in the ordinary way, with reference to the Chief Industrial Com-
missioner or to the Committee itself in the last resort in place of the
strike or lock-out. The problem was regarded as a temporary problem,
to be dealt with by temporary arrangements, the permanent require-
ments of both sides being safeguarded by the guarantee that no
temporary arrangement should prejudice a return to the status quo.
No attempt was made to state principles in accordance with which
trade practices should be modified and wages adjusted, doubtless
because the duration of the war was not expected to be so long that
permanent changes would be necessary; empirical adjustments by
the parties concerned, or if they failed to agree, by an arbitrator,
would, it was thought, meet all needs. At the same time a term would
be put to the tedious and annoying negotiations that had been the rule
before the Government intervened, and the strikes and lock-outs
that in normal times put a term to such negotiations would be pre-
vented. The recommendations amounted to a procedure rather than a
policy.

The Treasury Conference was convened on 17 March to secure the
explicit consent of the unions to this procedure. The Chancellor of
the Exchequer appealed to the unions to forgo their right to strike
and to suspend all practices restrictive of output, and promised to
limit the profit of the employers. The conference did something, as is
indicated above, to elaborate principles which should govern wages
adjustments as a result of dilution; in the main, however, the

(3130)
agreement reached relied on reference to arbitration to settle any question that might arise and on the guarantee of restoration of pre-war conditions to safeguard the permanent position of the skilled worker. The miners' and cotton unions refused to agree to suspend their ordinary procedure in favour of the proposed procedure for avoiding stoppages; but their abstention was due, not to any intention of exploiting the strike weapon, but solely to faith in the efficacy of the existing conciliation machinery, and an undertaking was given in each case to settle disputes without stoppages.

IV. Conclusion.

Thus in the first year of the war wages questions continually demanded the attention of the Government and led to action by the Government. But the problem that led to this action was conceived as the problem of labour supply and was never approached as a wages question. No attempt was made to devise a consistent policy of wages control. The Government stated its needs, and left it to the employers and trade unions to devise in negotiation with each other solutions of the wages questions involved in satisfying those needs. When it was forced to intervene, its interference was confined to substituting reference to arbitration for the strike, and to carrying through with the unions the negotiations over restrictive practices which employers had initiated and failed to carry through. When the Ministry of Munitions was established, it was still generally assumed that wages and wage questions could be left to the ordinary machinery of collective bargaining, working on the basis of pre-war rates. The Board of Trade, like the Ministry of Munitions subsequently, was reluctant to add the control of wages to its other duties until forced to do so. It might almost be said that the Government and the unions were at cross purposes, the former seeking to confine attention to output, the latter to the protection of wages.

The policy of piecemeal adjustments made the task of labour regulation, which the Ministry of Munitions was about to take up, much more difficult than it would have been, had the changes in wages in the first year of the war been controlled in accordance with some definite principles. As has been shown, the system of rates, which it was sought to adjust by arbitration, was seriously dislocated long before the machinery of arbitration was complete. The normal relations between the wages of different classes and grades of workers in the same industry, between different industries and between different districts had been altered and the new relations had neither authority nor stability.¹

The practice of employers—and of the employing Departments of the Government itself—of inducing skilled workmen to leave their places by offering higher rates or opportunities of earning higher wages, which did perhaps more than anything else to break the standard

¹ For illustrations of the divergence of earnings in the first fifteen months of the war, see Appendix I.
rates, could be dealt with only by preserving uniformity of rates or by prohibiting the free movement of labour. The Board of Trade was reluctant to adopt the second course, and made no attempt to preserve the former condition. An attempt to prevent unnecessary movement was made by Regulation 8B of the Defence of the Realm Act on 29 April; but it failed, the regulation remaining unused until it was revived in connection with an attempt to secure a more economical distribution of skilled men in 1918; a direct limitation of the worker’s freedom to sell his labour in the best market was embodied in Section 7 of the Munitions of War Act.

The ordinary machinery of collective bargaining, on which it was intended to rely, was thrown out of gear and with important sections of the workers discredited. It had been found too slow in its operation to meet the needs of a period of rapid economic change, and it had been proved to depend for its effectiveness on the right to strike or lock-out, which was now suspended. It was ill-adapted to rapid change, because the system of reference from one conference to another, which increased the chances of peaceful settlement in normal times, took so long that the necessary adjustments could not be completed before further changes, requiring further adjustments, had occurred; it depended on the strike or lock-out, because negotiations might be prolonged and concessions refused indefinitely, if the fear of a stoppage in the last resort was not there to precipitate a settlement.

The failure of this machinery to preserve industrial peace was not yet apparent when the Ministry was formed; but it was obviously subjected to a serious strain by the continuous rise in the cost of living and the evidence of high profits. The Munitions of War Act carried out the Government’s pledge, given at the Treasury Conferences, to limit profits; but the limitation of the profits of firms making munitions did nothing to check the rise in prices and corresponding inflation of profits in the trades supplying the needs of the ordinary wage-earner. The alleged “profiteering,” from which the wage-earner suffered, and the “profiteering,” which the suspension of his trade practices and union regulations would facilitate, were indeed independent issues confused in popular discussions. The Treasury Agreement and Munitions of War Act dealt with the latter, but did nothing to check the former. The Government’s control of profits therefore failed to dispel industrial unrest, and was of use only as giving the Government a moral right to insist on the suspension of restrictive practices.

The Treasury Agreement had not the effect that was hoped. It was necessary to embody it in the Munitions of War Act, which gave statutory force to its terms. While the leaders of the trade unions, with whom alone the Government could get into direct contact, needed no convincing of the evil of strikes and were persuaded of the necessity of suspending restrictive practices, the rank and file, on whom the carrying out of the bargain really depended, were not convinced. As always, they reacted instinctively against the threat to their standard

1 Vol. I, Part III, Chap. V.
rates; and the threat was serious, when they were asked at one and the same time to agree to a suspension of the principal safeguards and the disuse of the strike weapon. Even if there had not been this instinctive opposition, the continuous rise in the cost of living would have made general agreement difficult to secure. State control of wages was foreshadowed in the attempt to place restrictions on the movement of labour after higher wages, in the suspension of the right to strike, and in the beginning of the practice of national war advances awarded by a national arbitration authority. The implications of State control of wages were also foreshadowed in the suggestion put forward by the trade union spokesmen at several hearings of the Committee on Production that the Government should use its "control" over shipbuilding or engineering works to compensate employers for the cost of wages advances which their contracts would not otherwise enable them to bear.
CHAPTER II.

THE MINISTRY'S POWERS OF WAGE REGULATION.

I. Powers under the Munitions of War Act, 1915.

At the outset, the Ministry of Munitions was entrusted with very limited powers of wages control. The negotiations that preceded its establishment and led to the grant of its large powers of controlling the movement and regulating the labour of workpeople were, as has been shown, concerned very materially with wages, and the Treasury Agreement, on which the first Munitions of War Act was based, was in effect a bargain in which the protection of wages was a principal factor. But the Act placed on the Ministry no obligation and gave it no power to afford this protection.

The parts of the Act affecting wages are Part I with Schedule I, limiting the right to strike or lock-out in munitions industries and laying down procedure for the settlement of differences; Section 4 (2), requiring the consent of the Minister of Munitions to changes in wages and salaries in controlled establishments; Schedule II giving statutory force to the provisions of the Treasury Agreement about changes in practice and rates of wages; and also indirectly, Section 4 (5), which made works regulations for the ordering of work under certain conditions binding, and Sections 7 and 10, which limited the free movement of work-people in pursuit of higher wages.

(a) Part I.

Part I enacted that a difference which was not settled by the parties themselves might be referred by either party to the Board of Trade. The Board should take such steps as seemed expedient to promote a settlement; if suitable means existed under any agreement, the Board might refer the difference for settlement in accordance with these, or they might refer it to arbitration according to the provisions of the first schedule. This schedule provided three alternatives; the Committee on Production, a single arbitrator agreed on by the parties or appointed by the Board of Trade, and a special court consisting of an equal number of representatives of employers and work-people with a chairman appointed by the Board. The award on any such settlement would be binding on both parties; it might be retrospective; a contravention of it would be an offence under the Act. Strikes and lock-outs were made illegal, unless the difference should have been reported and twenty-one days have elapsed without
the Board of Trade referring it for settlement. The differences to which this part of the Act applied were defined as—

"differences as to rates of wages, hours of work or otherwise as to terms or conditions of or affecting employment on the manufacture or repair of arms, ammunition, ships, vehicles, aircraft, or any other articles required for use in war, or of the metals, machines or tools required for that manufacture or repair," but the provisions might be extended by Proclamation to differences in other industries "on the ground that in the opinion of His Majesty the existence or continuance of the difference is directly or indirectly prejudicial to the manufacture, transport or supply of Munitions of War." This general power of extending the Act was, however, limited by the provision that no proclamation should be made in the case of any industry in which the Minister was satisfied that effective means already existed to secure a settlement without stoppage, a provision inserted in accordance with an undertaking to the miners' and cotton operatives' unions to exclude them from the scope of compulsory arbitration.

Part I thus embodied the policy of relying on the ordinary arrangements for collective bargaining to settle all wages questions, with the substitution of arbitration for the strike or lock-out. Even arbitration was deferred until every other resource was exhausted; the Board of Trade was not bound to refer to arbitration, a provision intended to safeguard the Government against collusive action between employers and employed; and the extension of the Act by Proclamation outside the defined field of munition industries was limited to industries in which adequate voluntary agreements for securing a settlement did not exist. Thus, formally, at any rate, the responsibility for adjusting wages to changing conditions was left with the unions and employers' associations, and the desire of the miners' and cotton operatives' unions to be excluded from the scope of compulsory arbitration was respected.

The powers of the Ministry of Munitions were limited to "reporting" differences. Since the control of munitions production rested with the Department, and the responsibility for carrying out the Government's pledges to the unions was naturally placed by the unions on its shoulders, this restriction was unfortunate; the Ministry's officers inevitably came into contact with the differences first and were appealed to in connection with differences. The principle of the Act was, however, to disturb the ordinary provision for dealing with disputes as little as possible, and it was consistent with this principle to leave the administrative responsibility for arranging reference to arbitration to the Department which was already charged with conciliation and arbitration under the Act of 1896.

The independence of the arbitrating authorities followed from the same principle. There was no question as yet of fixing wages by administrative order; the arbitrators, if they were to serve their purpose and make stoppages unnecessary, must be independent of departmental control.
Section 4 (2) read as follows:

"Any proposal for any change in the rate of wages, salary or other emoluments of any class of persons employed in the establishment or of any persons engaged in the management or the direction of the establishment (other than a change for giving effect to any Government conditions as to fair wages or to any agreement between the owner of the establishment and the workmen which was made before the twenty-third day of June, nineteen hundred and fifteen), shall be submitted to the Minister of Munitions who may withhold his consent within fourteen days of the date of submission:

"Provided that if the Minister of Munitions so directs, or if the Minister's consent is withheld, and the persons proposing the change so require, the matter shall be referred for settlement in accordance with the provisions of the First Schedule to this Act, and the consent of the arbitration tribunal, if given, shall in that case have the same effect as the consent of the Minister of Munitions.

"If the owner of the establishment or any contractor or sub-contractor employing labour therein makes any such change, or attempts to make any such change without submitting the proposal for the change to the Minister of Munitions or when the consent of the Minister has been withheld, he shall be guilty of an offence under this Act."

It was the only section of the Act giving to the Ministry definite administrative powers of controlling wages and was drafted in terms that might seem to give the Ministry complete control of wages. The Ministry's powers were actually very limited. In the first place they were confined to controlled establishments, a limited class covering at first no trade or industry as a whole. Hence the Ministry's powers did not extend to the control of changes in standard rates and in practice could not be exercised without running the danger of creating disparities between the wages of workpeople in controlled establishments and others of the same class in other establishments. The exemption from any need of sanction of "a change for giving effect to any Government condition as to fair wages" limited the Ministry's action in the same way. The Fair Wages Clause in Government contracts required controlled establishments to "pay rates of wages and observe hours of labour not less favourable than those commonly recognised by employers and trade societies . . . in the trade in the district where the work is carried on." A change in the district rate by agreement between employers or unions or by an arbitration award would effect a change in wages in a controlled establishment without any sanction from the Ministry. In the second place, there was an appeal possible from the Ministry's decision to arbitration in accordance with the provisions of the First Schedule of the Act;
the Ministry's decisions were always therefore liable to be upset by an authority independent of it. In the third place, although it was early realised that the control would be ineffective if it did not include the sanctioning of all changes in piece-rates, it proved impracticable to require employers to submit all such changes.

The object of the Section was indeed much more limited. Mr. Lloyd George pointed out in addressing the first Treasury Conference that with the limitation of profits there would be a danger of collusion between employers and workpeople; this Section, it was explained in the debates on the Munitions of War Bill in the House of Commons, was intended to enable the Minister to prevent such collusion and to protect the tax-payer. While this was the object with which the clause was inserted in the Act, it was of course capable of other uses, and on 15 September, 1915, an announcement was made through the press that the Minister would use the powers conferred by it in order to prevent the reduction of piece-rates as a consequence of the increase of output due to suspension of restrictive practices.

(c) Schedule II.

Schedule II embodied the terms on which at the two Treasury Conferences the trade union representatives had agreed to recommend to their members the suspension of all restrictive practices. The only change from the formula embodied in the Treasury Agreement was the insertion in the fourth paragraph, which guaranteed rates in cases in which semi-skilled men were introduced to perform work hitherto done by skilled men, of the words "time and piece" before "rates." By Section 4 (4) of the Act itself the owner of a controlled establishment was deemed to have entered into an undertaking to carry out the provisions of this Schedule, rendering himself liable to a penalty (under Section 14 (1)) of £50 for any breach of the undertaking. The enforcement of the provisions in the Schedule was, however, left to private initiative; the question whether any particular rule or practice was restrictive was to be settled (under Section 4 (3)) by the Board of Trade or referred by them for arbitration like any other difference, while it was left to aggrieved workpeople and their representatives to detect and establish before a munitions tribunal any breach of the undertaking by an employer. It was expected that the principles set out in the Schedule would be applied by agreement between employers and trade unions locally; but the opposition to dilution among branch executives and the rank and file of the workers that had signed the Treasury Agreement was too strong to permit such agreement, until pressure was brought to bear by local Dilution Commissions. Without going to the extent of a prosecution, the Ministry could receive complaints and forward them to firms in the same way as breaches of the Fair Wages Clause were dealt with. Such complaints came in large numbers through the National Advisory Committee appointed after the Treasury Conference.

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1 C.R./2339, 2 September, 1915. 2 See below, p. 125. 3 See above, p. 19.
Section 4 (5) is a clause making binding any regulations with respect to the general ordering of work applied to a controlled establishment by the Minister of Munitions. It had a bearing upon the regulation of wages inasmuch as "due observance of the rules of the establishment" was one of the objects, and rules might be made governing the method of remuneration, penalising bad time-keeping and requiring work-people to work overtime. Such provisions were included in the code of rules drawn up for its members by the Engineering Employers' Federation,1 which required work-people to work "on piece-work or the premium bonus system, as and when required by the Company, time rates in the case of piece-work being guaranteed." The prejudice against payment by results was not overcome by this simple device; it was decided that where men had been employed time-rate and the employer without their consent proposed to pay piece-rate, an order to work piece-rate was not a "lawful order" and disobedience was not punishable,2 and the extension of payment by results was still the subject of controversy when the Ministry's operations ceased. In any case the final authority in deciding what rules should be enforced was left by the Minister's regulations not with the employer or even the Ministry, but with a local munitions tribunal; the Minister's regulations of 14 July, 1915, instructing owners of controlled establishments to post rules and work-people to comply with them, provided "that no person shall be liable to a penalty under the Act for failing or refusing to comply with any rule, if the Munitions Tribunal is satisfied that the rule is an unreasonable one, or that the person had just cause for his failure or refusal to comply with it." Experience soon proved that only the Ministry's model rules could be enforced, and these contained no provision of the sort indicated.3

(c) Leaving Certificates and Power of Embargo.

Section 7, like Section 4 (5) affected wages only incidentally, but its influence was much greater. It was as follows:—

(1) A person shall not give employment to a workman who has within the last previous six weeks or such other period as may be provided by order of the Minister of Munitions as respects any class of establishment, been employed on or in connexion with munitions work in any establishment of a class to which the provisions of this Section are applied by order of the Minister of Munitions, unless he holds a certificate from the employer by whom he was last so employed that he left work with the consent of his employer or a certificate from the munitions tribunal that the consent has been unreasonably withheld.

1 Vol. IV, Part II, Appendix I.
(2) If any workman or his trade union representative complains to a munitions tribunal in accordance with rules made with respect to those tribunals that the consent of an employer had been unreasonably withheld that tribunal may, after examining into the case, if they think fit, grant a certificate which shall, for the purposes of this Section, have the same effect as a certificate from the employer.

(3) If any person gives employment in contravention of the provisions of this Section, he shall be guilty of an offence under this Act.

The order, applying it, defined the establishments to which it should apply as:

"Any establishment being a Factory or Workshop, the business carried on in which consists wholly or mainly in engineering, shipbuilding, or the production of arms, ammunition or explosives, or the substances required for the production thereof."

This definition differed from that of "Munitions Work" adopted in the First Part of the Act, being taken from Regulation 8B, made on 29 April, under the Defence of the Realm Act, with the same object as Section 7 of the Munitions of War Act. Hence its scope was different both from the provisions of Part I, and of the regulations governing controlled establishments, yet the categories of workers affected were largely the same and the decision in any doubtful case could be made only by reference to a munitions tribunal.

The object of Section 7 was disciplinary.¹

It was pointed out by Mr. Pringle that its effect would be to limit wages. "The workman in this country," he said, "is to be the only man who cannot sell the only commodity he has, namely, his labour, in the open market."² But it was the obstacle to output offered by the frequent movement of workers, not its indirect effect in forcing up wages, that employers impressed upon the Government and the latter sought to remove. Like the prohibition of strikes, it was part of a policy of removing obstacles to output; taken with that prohibition, it also deprived workpeople of the normal means of protecting wages and securing advances. The trade unions urged and the Government subsequently admitted that these restrictions placed a corresponding obligation on the Department to safeguard wages, at any rate the wages of women munition workers. The disciplinary effect of

¹ Mr. Lloyd George:—"The third thing is the prevention of the practice which has done more to destroy discipline in the yards than almost anything—that is the practice of employers in pilfering each others' men. It is absolutely impossible to obtain any discipline or control over men if a man who may be either slack or disobedient to a reasonable order is able to walk out at the moment, go to the works which are only five or ten minutes off, and be welcomed with open arms without any question being asked." Parliamentary Debates, 1915 (H. of C.), LXXII, 1199.

² Parliamentary Debates, 1915 (H. of C.), LXXII, 1230.
the restriction, however, was the cause of its unpopularity at first. It was only as the cost of living rose and a marked divergence appeared between earnings on time-work and earnings on the system of payment by results that the inability to move was felt as a serious hardship. By the summer of 1917 employers were complaining of "poaching" of labour in spite of the leaving certificate, and feared that if the leaving certificate were abolished it would be impossible to prevent a big movement of skilled time-workers to less skilled piece-work; and the Department found itself compelled to ask for power to regulate time-workers' wages before it could relinquish the leaving certificate provision.

Section 10 attacked the same problem, the obstacle to output offered by the frequent movement of labour, from the other side, by enabling the Minister to impose restrictions on the employers' freedom to engage labour. It amended, by adding the words, printed in italics, paragraph (d) of Section 1 (1) of the Defence of the Realm (Amendment) No. 2 Act (March, 1915), and ran as follows:—

"(d) to regulate or restrict the carrying on of any work in any factory, workshop, or other premises, or the engagement or employment of any workman or all or any class of workmen therein, or to remove the plant therefrom with a view to maintaining or increasing the production of munitions in other factories, workshops, or premises, or to regulate and control the supply of metals and materials that may be required for any article for use in war."

This section represented an earlier policy than Section 7, an attempt to stop the poaching of labour by dealing with the poacher. It had not proved practicable to pursue it, and no use was made of the power until Section 7 was repealed. Even then it was applied to an object different from that of its original intention, being used to enable the Department to "ration" skilled labour. But the Minister had relied on it, when deciding to relinquish Section 7, to enable him to prevent poaching of labour; its unpopularity with labour proved as great as that of Section 7, and for the same reasons. By limiting the workman's freedom of movement, it limited his power to secure better terms of employment; as a trade unionist put it, it substituted a "starting certificate" for a leaving certificate.

(f) The Fair Wages Clause.

In addition to its limited statutory powers the Ministry exercised some control of wages through its administration of the Fair Wages Clause. The powers of wages control taken by the Minister of Munitions were indeed so limited in the first instance, because it was thought

1 Employers' Advisory Committee Minutes. (L.R. 5581).
2 Vol. I, Part II, Chap. III.
that all necessary adjustments could be left to ordinary collective bargaining, and the Government need in the main intervene only to enforce the carrying out of the terms so reached. The Fair Wages Clause, inserted under a resolution of the House of Commons in all public contracts, ran as follows:—

"The contractor shall in the execution of this contract observe and fulfil the obligations upon contractors specified in the Resolution passed by the House of Commons on the 10th March, 1909, namely, the contractor shall .... pay rates of wages and observe hours of labour not less favourable than those commonly recognised by employers and trade societies (or in the absence of such recognised wages and hours, those which in practice prevail among good employers) in the trade in the district where the work is carried out. Where there are no such wages and hours recognised or prevailing in the district, those recognised or prevailing in the nearest district in which the general industrial circumstances are similar shall be adopted. Further, the conditions of employment generally accepted in the district in the trade concerned shall be taken into account in considering how far the terms of the Fair Wages Clause are being observed. The contractor shall be prohibited from transferring or assigning directly or indirectly to any person or persons whatever any portion of his contract without the written permission of the Department. Sub-letting other than that which may be customary in the trade concerned shall be prohibited. The contractor shall be responsible for the observance of the Fair Wages Clause by the sub-contractor."

In normal times, it relieved Government Departments of the difficult task of deciding what were fair terms of employment and settled the relations of the Government to terms of employment by a method which the trade unions had themselves devised. In the abnormal conditions of the war it was no longer an adequate method, for two reasons. In the first place, the sanction by which a Department compelled a contractor to observe the conditions of the clause was inapplicable; that was to exclude him from further contracts, an impracticable procedure when the Government could not get on any terms the full amount of supplies that it wanted. In the second place, the clause assumed stable and easily ascertainable terms of employment, and sufficient organisation on the part of the workpeople concerned to secure attention to any failure to observe the clause. These conditions did not apply to much of the work given out by the Ministry of Munitions: the work itself was novel, or was undertaken by firms and districts to which it was new, or by methods which were new, and the workers were in a large proportion women, who were not organised in any numbers and were in many cases new to industrial employment of any kind. While, therefore, the Fair Wages Clause played an important part in determining the relations of the Department with wages, specially the wages of the skilled grades, it did not prevent a demand for more direct and extensive control of wages.
A survey of the wages provision of the first Munitions of War Act therefore shows clearly that the control of wages was no part of the policy which led to the establishment of the Ministry. Wages, in war as in peace, were to be adjusted by the employers and workpeople directly concerned. Arbitration was substituted for the strike as the ultimate resort in cases of difference, and certain conditions, settled once for all at the Treasury Conferences, were to be observed in return for the trade unions' undertaking to suspend all practices restrictive of output. Neither in the Act itself nor in the memoranda on which it was based are there any signs of the revolution in the attitude of the State towards the problem of fixing wages which the war was to bring about. Consistent with this is the slight administrative provision made for handling wages questions. In a review of the work of the Secretariat in regard to labour dated 14 September, 1915, beyond a bare mention that control of controlled establishments includes control of wages and a reference to the administration of the Fair Wages Clauses, wages questions are not mentioned. In a report of the Labour Department, three months later (2 December) the inevitable growth of work in connexion with wages is indicated. A large number of wages questions had been dealt with mainly under three heads, the Fair Wages Clause, Section 4 (2) of the Act, and by way of interpreting the recommendations of the Minister as to the remuneration of workers replacing skilled men under dilution. But in November, 1915, it was still thought that wages questions would not occupy the full time of more than a single official. Wages questions were incidental; the control of wages was neither sought nor desired; the policy of the Government was to interfere as little as possible with pre-existing methods of settling wages. Even when the Ministry found itself entangled in wages questions, the policy was to rely so far as possible on suggestions and recommendations rather than orders, and to proceed by the method of diplomacy rather than administration.

II. The Munitions of War (Amendment) Act, 1916.

(a) The Central Munitions Labour Supply Committee.

The necessity of taking powers to control wages by Order arose from the policy of dilution. The Treasury Agreement nominally ensured the co-operation of organised labour in any measures that might prove necessary to increase the output of munitions, but in practice, as is shown elsewhere, the Agreement failed. Nor was it sufficient to embody the Agreement in the first Munitions Act, thus making all restrictive practices illegal. Opposition to the substitution of women's and unskilled male labour for skilled men continued; the shortage of skilled
men became more urgent as the programme of national factories
developed and the demands of the combatant forces grew; and the
appeal made by the National Advisory Committee, appointed under
the Treasury Agreement to advise and assist the Government in carry-
ing out its terms, for volunteers under the war munition volunteers’
scheme had definitely failed to meet the needs of the situation by
September, 1915. The Department, therefore, was forced to give
more detailed consideration to the possibility of economising skilled
labour by means of dilution.

In the middle of September, after consulting the National Advisory
Committee and the adjudicators who had advised on transfer under
the war munitions volunteers’ scheme, the Minister appointed the
Central Munitions Labour Supply Committee to advise and assist the
Department on the dilution and transfer of skilled labour. The chief
work of this Committee was to lay down the principles on which women
munition workers should be paid; a full account of its work is therefore
given in connexion with the history of the control of women’s wages.1
Its function was to promote dilution; its interference with wages was
unexpected. The composition of the Committee, however, with its
large representation of trade unions, explains the direction of its
activities. As in the negotiations that culminated in the Treasury
Conferences, an appeal by the Government for increased output was
translated into a treaty for the protection of wages. The Committee
 realised that the root of the opposition to dilution lay in the threat to
wages inherent in dilution. One of its first acts was to appoint a sub-
committee to draw up terms on which substituted labour should be
employed, and the recommendations drafted by this sub-committee
formed the basis of the Ministry’s control of wages.

The Committee met for the first time on 22 September. The Sub-
committee on wages two days later drafted a statement concerning
the remuneration of women over 18 on men’s work; this they elaborated
in a series of regulations, which, slightly modified, were subsequently
issued by the Ministry as Circular L.2.2 On 1 October, the Sub-com-
mittee also drew up regulations to govern the employment and remu-
neration of unskilled and semi-skilled men on skilled jobs; these similarly
became Circular L.3. The two series of draft regulations were forwarded
to the Minister on 4 October. Later the Committee drew up regulations
for the employment and remuneration of women on munitions on which
they did not take the place of men. In forwarding these to the Minister
as Chairman of the Committee, Mr. Henderson admitted that the
employment of these workers was less directly connected with the
problem of dilution; but urged that experience showed some such
statement to be necessary if the employment of women on a large
scale was to be effected.3

On receipt of the two first proposals of the Committee, Dr. Addison
pointed out for the Minister that he had no power to promulgate

1 Vol. V, Part II. See also Vol. IV, Part I, Chap. IV.
2 Vol. V, Part II, Chap. II.
3 Vol. V, Part II, Chap. V.
binding regulations on these matters except in national factories. He proposed to circulate the recommendations for comment to the organisations of the parties concerned, and provisionally accepted them for the establishments directly under the Ministry. The Committee, however, pressed for the immediate issue of the regulations, on the ground that the progress of dilution was held up by the question of wages, and on 18 October the Ministry agreed to issue them as recommendations, with certain minor amendments, to which the Committee agreed, the chief of which were the substitution of the Minister for the Committee as the authority to interpret the recommendations and the making of the rates definite instead of minima.

(b) The Demand for Control by Order.

The issue of recommendations by the Minister was an important change of policy. The mere fact that the Central Munitions Labour Supply Committee found it necessary as their first task to draw up wages regulations pointed to the inadequacy of the Treasury Agreement as a settlement of the wages problem involved in dilution; the issue of them by the Minister led inevitably to statutory control of wages.

In the first place, the issue of authoritative recommendations was a breach of the principle that all questions arising out of the Treasury Agreement should be settled by an independent arbitrating authority; the Chief Industrial Commissioner complained that the Circular L.2 was constantly quoted in arbitration proceedings. The position, then, that wages questions could be left to collective bargaining, as in normal times, was undermined. In the second place, the chief trade unions concerned with dilution demanded that the circulars should be made binding as a condition of their support to the policy of dilution, and it was difficult for the Ministry, after committing itself to the rates and conditions contained in the circulars by recommending them, to refuse to make them binding. This demand was made by the Executive Council of the Amalgamated Society of Engineers, whom the Committee met to discuss the circular on 27 October. They were persuaded for the moment to accept as a compromise the suggestion that their cooperation in dilution should be asked only where employers undertook to observe the recommendations contained in the circulars, and the principal other unions accepted the same compromise two days later; but the demand for compulsion was renewed when an amending Bill was brought forward.

As is explained elsewhere, an amending Act for other purposes was decided on at the end of September.¹ The draft was submitted to the National Advisory Committee for comment on 11 November. The National Advisory Committee considered the draft in detail and then urged the inclusion of a number of new clauses, including the provision for remedying the grievances of the worker under the existing operation of the leaving certificate rule and provision for taking power to establish

¹ Vol. IV, Part II, Chap. III.
standard rates for women in controlled establishments. Further, the Committee, at a joint meeting with the Council of the Federation of Engineering and Shipbuilding Trades and members of the Amalgamated Society of Engineers and the Boilermakers, decided to convene a conference on the Amendment Bill. At this conference, held in the Central Hall, Westminster, on 30 November, and attended by representatives of 55 unions, amendments under the same heads were urged, the proposal under the head of wages being that the Minister should take powers to enforce minimum rates and conditions for all women engaged on munitions work to which the leaving certificate Section of the Act applied.

(c) Provisions for Control by Order.

The Amending Bill, when presented in Parliament on 9 December, conceded this wider demand. In a draft clause submitted to the National Advisory Committee on 17 November, the power to regulate wages by Order was limited to the case of "female labour introduced to perform work which before the war was ordinarily performed by male labour"; the clause in the Bill extended the power to all female munitions workers subject to the leaving certificate regulations. Thus it empowered the Minister to enforce regulations such as those drafted by the Central Munitions Labour Supply Committee, governing the remuneration of women who were not replacing men, and Dr. Addison, in moving the second reading of the Bill, used the argument that the restriction on their freedom imposed by Section 7 of the principal Act entitled them to this protection.

To meet the difficulty that the fixing of wages by Order was inconsistent with the settlement of wages questions by arbitration under Part I of the principal Act, the Government added a clause in Committee, empowering the Minister to constitute a special arbitration tribunal to arbitrate on differences reported under Part I of the principal Act, which related to the employment of women whose wages and conditions were subject to the Minister's directions, and to advise him as to what directions he should give.¹

The principle of wages control by Order received a further extension before the Amending Bill became law. At a conference held on 30 December the Amalgamated Society of Engineers resolved to withhold its support to the dilution scheme, unless all the amendments it had urged at the conference on 30 November were embodied in the Bill, and instructed a deputation to lay this decision before the Prime Minister and Minister of Munitions. The deputation was received the next day.² After a long discussion, the representatives of the Government agreed to take powers to make Circular L.3 as well as L.2 binding, on condition that the concession put a term to the Amalgamated Society of Engineers' demands and really secured its co-operation in giving effect to the policy of dilution. The deputation passed a resolution to this effect, which the

¹ M.W. 58604/95. ² Vol. IV, Part I, Chap. IV.
Chairman and Secretary of the society signed. The Bill was recommitted on 4 January, 1916, and a clause introduced giving the Minister the power to carry out his part of the undertaking. The clause relating to the special arbitration tribunal was also amended to enable the Minister to appoint a second tribunal to perform the same office in relation to male substitution as the tribunal already proposed would perform in relation to female substitution. The provisions, therefore, in the Bill as it was finally passed empowering the Minister to regulate wages by Order, were as follows:

6.—(1) Where female workers are employed on or in connection with munitions work in any establishment of a class to which the provisions of section seven of the principal Act as amended by this Act are for the time being applied by an order, made thereunder, the Minister of Munitions shall have power by order to give directions as to the rate of wages or (subject so far as the matter is one which is dealt with by the Factory and Workshops Acts, 1901 to 1911, to the concurrence of the Secretary of State) as to hours of labour or conditions of employment of the female workers so employed.

(2) Any directions given by the Minister of Munitions under this section shall be binding on the owner of the establishment and any contractor or sub-contractor employing labour therein and the female workers to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable in like manner as if the order in which the direction is contained was an award made in settlement of a difference under Part I of the principal Act.

(3) No direction given under this section shall be deemed to relieve the occupier of any factory or workshop from the obligation to comply with the provisions of the Factory and Workshops Acts, 1901 to 1911, or of any orders or regulations made thereunder, or to affect the liability of any person to be proceeded against for an offence under the Employment of Children Act, 1903, so, however, that no person be twice punished for the same offence.

7. The Minister of Munitions shall have power by order to give directions as to the rate of wages, hours of labour, or conditions of employment of semi-skilled and unskilled men employed in any controlled establishment on munitions work, being work of a class which, prior to the war, was customarily undertaken by skilled labour, or as to the time rates for the manufacture of complete shell and fuses and cartridge cases in any controlled establishment in which such manufacture was not customary prior to the war; and any direction so given shall be binding on the owner of the establishment, and any contractor or sub-contractor employing labour therein, and the workers to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable, in like manner as if the order in which the direction is contained was an award made in settlement of a difference under Part I of the principal Act.
8.—(1) The Minister of Munitions may constitute special arbitration tribunals to deal with differences reported under Part I of the principal Act which relate to matters on which the Minister of Munitions had given or is empowered to give directions under the last two preceding sections, and the Board of Trade may refer any such difference for settlement to such tribunal in lieu of referring it for settlement in accordance with the First Schedule to the principal Act.

(2) The Minister of Munitions may also refer to a special arbitration tribunal so constituted, for advice, any question as to what directions are to be given by him under the said sections.

(3) The tribunal to which matters and questions relating to female workers are to be referred under this section shall include one or more women.

(d) Amendment of the Principal Act.

Other provisions in the Amendment Act met grievances connected with wages, which had been urged on the Commissioners appointed to enquire into the grievances of munition workers on the Clyde and at the conferences convened by the National Advisory Committee. Section (2) amended Section (1) of the principal Act, requiring the Board of Trade to refer differences to arbitration within twenty-one days of their being reported. There had been bitter complaints of delays in securing settlements of differences. Section (5) amended Section (7) of the principal Act, among other provisions requiring a munitions tribunal, in determining whether the grant of a leaving certificate had been unreasonably withheld, to

"take into consideration the question whether the workman has left or desires to leave his work for the purpose of undertaking any class of work in which his skill or other personal qualifications could be employed with greater advantage to the national interests, and whether the employer has failed to observe the conditions laid down in the Fair Wages Clauses required by resolution of the House of Commons to be inserted in Government contracts, and whether the workman has left or desires to leave his work because he has recently completed a term of apprenticeship or period of learning his trade or occupation and desires to obtain the full standard rate of wages applicable to fully qualified workmen in his trade or occupation."

(e) Extension of the Area of Regulation.

More important than these alterations in detail, which affected the position of the munitions worker rather than the powers of the Ministry, were the alteration in the definition of munitions and the extension of the Minister's power to declare establishments controlled. The former made possible a great increase in the number of establishments to which
the leaving certificate sections of the Acts could be applied and in which, therefore, the Minister's powers of giving directions as to wages could be used; and the latter, since the leaving certificate sections were applied to all controlled establishments, had the same effect. The Ministry became directly responsible for the wages of an increasing number of munitions workers, and these the workers whose remuneration raised the most difficult questions. The special arbitration tribunals appointed under Section 8 of the Amendment Act, by taking over the task of advising the Minister on wages undertaken hitherto by the Central Munitions Labour Supply Committee, relieved the Minister of some of the responsibility for the directions given, and by dealing with differences under Part I of the principal Act kept alive the principle of settlement by arbitration; but this division of responsibility did not diminish the importance of the change of policy affected. The Ministry had accepted the obligation to protect wages which the trade unions associated with its powers of controlling labour, and had forthwith to build up an administrative machine that could discharge that responsibility.

III. The Dilution Bill of 1917.

(a) Object of the Bill.

Towards the end of 1916 it was decided that another Amendment Act would be necessary. The increasing demand of the army for munitions, the increasing need of the army itself for skilled artificers, the danger that the economic stability of the country would be undermined if more men were withdrawn from private industry, led to a renewed attempt to make a better use of the limited number of skilled men available. This economy, it was thought, could be effected best by extending dilution to private work. An amending Bill was needed because the powers of the Ministry to declare establishments controlled, and so to secure the prohibition of restrictive practices, were confined to munitions work as defined in the 1916 Act. A further difficulty was that the Government had pledged itself not to extend dilution from Government to private work at the second Treasury Conference in March, 1915, and the Minister thought that the extension could not take place, although circumstances had changed since the pledge was given, without the consent of the unions to whom it was given. At a conference in November, 1916, most of the unions agreed on conditions, but the most important union of them all, the Amalgamated Society of Engineers, which had originally exacted the pledge, refused compliance and would take no part in the negotiations over conditions that followed the Conference. No other method of attaining the Ministry's object, however, was suggested, and an Amending Bill was presented on 27 March, 1917.

1 Chap. III, and Vol. V, Part II.
2 Circular M.M. 142.
3 Parliamentary Debates, 1917 (H. of C.), XCIII, 1903.
(b) Provisions in First Draft.

As originally presented the Bill had only three clauses. The first, which embodied the object of the measure, empowered the Minister of Munitions, where he was satisfied that it was of national importance that all or any of the provisions of the Munitions of War Acts should be extended to work of any particular class, or work in any particular establishment or class of establishment, to issue a certificate to that effect and to direct by Order that the provisions should extend accordingly; thereupon those provisions were to have effect as though reference to munitions work included reference to the work specified in the Order.

A proviso made it impossible to extend the provisions which imposed restrictions on the liberty of the workmen (e.g., suspension of restrictive practices) without making the employer subject to the corresponding provisions affecting employers (e.g., obligation to restore suspended practices after the war). The object of this proviso was to preserve the balance of the compromise between the interests of employers and the interests of workpeople embodied in the Treasury Agreement.

If this clause were passed, it would become possible for the Minister to control private and commercial firms and to assign to them war munitions volunteers.

The second clause was intended to improve the position of the war munitions volunteer. In the original Munitions Act priority of employment after the war was ensured to employees who had enlisted from a firm or were in the employment of the firm when it became a controlled establishment (Schedule II, Par. 3). This preference was now extended to workmen who had been assigned to some other establishment under Section 6 of the Act.

The third clause of the Bill was the only one bearing directly on wages control and also the only one of the three that became law. One of the most frequent complaints of trade union officials affected by the Munitions Act had been that arbitration awards took a long time to secure, and, when secured, a long time to enforce. Awards given under Part I of the Munitions Act were binding, but only on the actual parties to the difference. Even if the parties were representative associations of employers and workpeople, the award was not binding on the trade as a whole, since it did not bind firms outside the membership of the Federation; and the unions could make it effective throughout the trade only by the slow piecemeal procedure of complaints against individual firms that they were not observing the Fair Wages Clause in their contract with the Ministry. Some speedier procedure was desirable; the reform was the more important, because the employers' federation and the principal unions in the engineering and foundry industry in February, 1917, concluded an agreement to suspend their customary procedure for settling wages questions and to submit instead a joint application to the Committee on Production at four-monthly intervals. To this agreement,
which placed on the Committee on Production the definite responsibility for controlling wages in the industry, and which was soon copied by the shipbuilding, chemical and other industries, a memorandum was attached recommending the Government to make arrangements "whereby all employers in any trade or trades affected should be subject to the awards which may be made by the Committee on Production in virtue of the agreement";¹ the most important union concerned, the Amalgamated Society of Engineers made its participation conditional on such arrangements being made. Clause 3 accordingly provided that the Minister of Munitions might by Order direct that an award should be binding on other employers and persons engaged in a trade and specified in the Order, and that in such case the award should be binding on them in like manner and with the like consequences as if it had been made under Part I of the Munitions of War Act, in respect of a dispute affecting these employers and persons.

(c) The Bill in Parliament.

In moving the second reading of the Bill on 27 April, Mr. Kellaway announced that two or three new clauses would be put down by the Government "very largely as a result of questions addressed to me in the last two or three weeks, and of representations made to the Ministry from the country."² The clauses he specified were, first, a clause for expediting hearings of arbitration cases; second, a clause to deal with refusal to give a leaving certificate to a workman on the expiry of six weeks from his leaving his place, and, third, a clause tightening up the provision for preventing the cutting of piece-rates. Suspicion of such rate-cutting was, Mr. Kellaway said, "the real and substantial ground" of the recent trouble at Barrow. The Bill with these provisions added may be taken as the first draft of a bargain which the Ministry sought to drive with the unions in the course of the ensuing summer, by which it was hoped to secure the assent of the unions to the extension of dilution to private work by conceding their demands for the remedy of grievances under other heads. It also marked the beginning of a change which was to transform the Bill from a measure for extending dilution, of which opportunity was taken to effect a minor reform in wages administration, into a measure for removing the munitions workers' grievances under the head of wages, with all the dilution provisions left out.

Mr. Pringle moved the postponement of the Bill, until the existing restrictions on the freedom of employment of munitions workers had been removed. He insisted that Section 7 of the original Act was the chief grievance of the worker; but referred also to the doubts that were entertained that suspended practices and customs would after the war be restored, and pointed out that, since the excess profits tax was imposed, munitions manufacturers were under no special disability in the matter of profits, so that the compromise between the interests of employers and workpeople embodied in the original Act was

¹ See below, pp. 48 and 78–79.
² Parliamentary Debates, 1917 (H. of C.), XCII, 2743.
disturbed. Mr. W. C. Anderson seconded the rejection, asserting that
the Ministry was under a moral obligation to see that the employer
did not take unfair advantage of the leaving certificate provision to
prevent the worker from getting the fair wage he could get elsewhere.\(^1\)
The Bill, however, was read a second time.

At the committee stage on 7 May, Mr. Kellaway said that it was
intended to modify Section 7.\(^2\) An amendment to exclude Section 7
from the provisions that the Minister might extend by Order was
negatived; so was a proposal to make extension of the provisions of
the Munitions Act to new work conditional on the trade unions
representing the workers concerned giving their consent. The clause
amending paragraph (3) of the second Schedule, extending the right
of priority of employment after the war to workpeople assigned to some
other establishment by the Minister, was passed. Amendments were
inserted extending the scope of awards which might be made
binding by Order, from wages alone to wages and "hours of work or
otherwise as to terms or conditions of or affecting employment," and
allowing the Minister to make any modifications that might be
necessary to make the award applicable to the special circumstances
of the firm to which it was extended.

Section 7 was amended first by making it incumbent on employers
to issue leaving certificates at the end of the period of employment,
and, secondly, by substituting "shall" for "may" in subsection (2)
of Section 7, which permitted munitions tribunals, but did not require
them, to issue certificates where they held that employers had withheld
them unreasonably. A new clause was inserted, enabling the Minister
of Labour to make rules for preventing delays in the settlement of
differences under Part I of the original Act; and another gave the
promised protection to piece-rates in the following form:

"The following paragraph shall be inserted in the Second
Schedule of the Munitions of War Act, 1915, after paragraph (5):

(5) a. Piece prices, time allowances, or bonuses on output,
once fixed in the establishment, may not be altered
except by express agreement unless a substantial change
in the method of operation or in the machinery or tools
is introduced, and where such a change is introduced the
altered piece prices, time allowances, or bonuses on
output, shall not be such as to be less favourable to the
workmen from time to time employed in the establish-
ment."

With these additions and amendments the Bill was reported; but
on an appeal from Mr. Pringle, who pointed out that several of the
principal opponents of the Bill had been absent, further steps were
postponed for the moment. The strike of engineers in all the impor-
tant munition centres had shown clearly how unpopular any extension
of dilution would be, and gave to the opponents of the Bill a backing
in the country which they lacked in the House.

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\(^1\) Parliamentary Debates, 1917 (H. of C.), XCII, 2763 et seq.
\(^2\) Ibid. XCIII, 830 et seq.
IV. The Commission on Industrial Unrest.

On 25 May, in the House of Commons, the Prime Minister was asked by Mr. Snowden to postpone further consideration of the Bill until the Commission which he had promised to enquire into industrial unrest should have reported. He refused on grounds of urgency, especially in merchant shipbuilding. It was not, however, until 14 August that the Bill appeared in the House again. The interval was occupied by negotiations with trade unions and employers, which transformed the Bill; while the course of events in the country discouraged any attempt to extend dilution.

The introduction of the Bill had almost coincided with the withdrawal of the trade card scheme of exemption from military service. The two incidents together, acting on the mass of pre-existing misunderstandings and grievances, precipitated a great strike, extending to all the important engineering centres, in April and May. The outbreak was unofficial, as it was illegal, but the repudiation of it by official trade union leaders did not end it. When it was ended, the official leaders mediating between the Government and the actual strike leaders, the Prime Minister promised an immediate enquiry into the alleged grievances. This promise was fulfilled by the appointment, on 12 June, of the Commission on Industrial Unrest, which sat in eight divisions in different parts of the country and reported on 17 July. In the "brief summary" of the Commissioners' findings submitted to the Prime Minister by Mr. G. N. Barnes, the first four of the fourteen points mentioned had a bearing direct or indirect on wages. They were—

"1) High food prices in relation to wages, and unequal distribution of food.

"2) Restriction of personal freedom and, in particular, the effects of the Munitions of War Acts. Workmen have been tied up to particular factories and have been unable to obtain wages in relation to their skill. In many cases the skilled man's wage is less than the wage of the unskilled. Too much centralisation in London is reported.

"3) Lack of confidence in the Government. This is due to the surrender of Trade Union customs and the feeling that promises as regards their restoration will not be kept. It has been emphasised by the omission to record changes of working conditions under Schedule II, Article 7, of the Munitions of War Act.

"4) Delay in settlement of disputes. In some instances ten weeks have elapsed without a settlement, and after a strike has taken place the matter has been put right within a few days."

Among the recommendations were two that had a bearing on the Bill; first, that the greatest possible publicity should be given to the abolition of leaving certificates, which the Government had promised
while the Commission was sitting, and second, that a system should be inaugurated whereby skilled supervisors and others on day rates should receive a bonus. Some of the commissioners recommended also that agreements made between employers' federations and trade unions should be made binding on the trade, and that local arbitration tribunals should be set up.

V. Negotiations with Trade Unions and Employers, 1917.

The negotiations between the Ministry and the trade unions and employers' representatives had brought out the same needs in the industrial situation, and the Ministry had already, as in the case of leaving certificates, anticipated some of the Commission's conclusions. At a conference of trade union representatives on 10 May a committee was appointed to negotiate with the Ministry, with Mr. John Hill as chairman. Negotiations were carried on with the Amalgamated Society of Engineers separately but concurrently. In the course of the discussions the fears and grievances of workers and administrative difficulties of employers were fully explored, and a measure devised which it was thought would reconcile Labour to the extension of dilution to private work.

The chief points on which the discussions with the trade union representatives turned were the leaving certificate clause, the safeguarding of piece-rates, the form that the provision for extending awards should take, the delays in obtaining awards, provision for consulting the workpeople's representatives in effecting dilution or introducing any other changes, and the guarantee of restoration after the war of suspended customs and practices. The last two have no bearing on wages administration, and in any case did not reach the stage of actual legislation; the others, which all bear directly on wages, resulted in the chief provisions of the Bill that actually became law.

(a) Extension of Awards.

The principle of extending awards was not in question; there were, however, one or two points about the form the provision should take. In the Bill as introduced the Minister was empowered to make an Order extending an award if he was satisfied that it "affects the majority of the employers" in a munitions trade. The trade union committee urged that the important point was whether a majority of workpeople was affected; the condition was accordingly altered to read "the Minister of Munitions is satisfied that the award is binding upon employers employing the majority of the persons engaged on or in connection with munitions work in any trade or branch of a trade either generally or in a particular district." Again, the Minister was empowered to make an Order making the award binding "either without modifications or subject in any particular cases to such modifications contained in the direction as the Minister may consider necessary.

1 See above, pp. 44-45.  
2 L.R. 139/9.
to adapt the award to the circumstances of such cases, and in particular in order that no such employer shall be compelled to pay greater or enabled to pay less wages than an employer who was originally bound by the award." The original intention was to allow an employer who had been paying above the district rate to pay less than the whole award. The Employers' Advisory Committee objected to the words in italics, on the ground that the object of the provision was the enforcement of advances, not the establishment of a minimum. The words italicised therefore were omitted. With these alterations the section was passed as Section 5 of the Act.

(b) ACCELERATION OF ARBITRATION PROCEEDINGS.

Complaints of delay in the settlement of differences under Part I of the principal Act were common. When that Act was presented to a conference of trade unionists, just before its introduction into the House of Commons, Mr. Duncan had urged the need of very greatly increasing the staff available for the work of conciliation and arbitration, on the ground that delays prejudiced arbitration and were a principal cause of discontent. Two years later, as we have seen, the Commission on Industrial Unrest reported to the same effect. The complaints were not, however, confined to the representatives of Labour; the Government Departments concerned found that they were at times unable to secure the settlement of a dispute of which they were aware, because neither of the parties to it would report it.

Two provisions in the Amendment Bill were directed to remedying this delay. Clause (6) Subsection (1) was as follows:

"The Minister of Labour may make regulations with respect to the reporting of differences under Section 1 of the Munitions of War Act, 1915, and with a view to preventing undue delay in negotiations for settling such differences may by those regulations prescribe the time within which any such difference is to be reported to him."

Clause 7 should be taken with this:

"At the end of the First Schedule to the Munitions of War Act, 1915, the following paragraph shall be inserted:

"(4) The tribunal shall make its award without delay, and where practicable within fourteen days from the date of reference."

The unions in pressing these complaints of delay had urged that there should be a fixed time-limit for the settlement of differences. It was, however, considered impossible to impose on an arbitration tribunal the duty of issuing its award within a specified time, since what was a reasonable time in a simple case might be quite inadequate for a complicated and important case.

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Subsection (2) of Clause (6) gave Government Departments the power to report differences for settlement. It amended subsection (1) of Section I of the principal Act by inserting the words "by or on behalf of any Government Department" after the words "by or on behalf of either party to the difference." The power was needed particularly to enable supply departments, that heard of a difference first because it interfered with supplies, to report the matter at once to the Ministry of Labour.

(c) Protection of Piece-Rates.

The negotiations over the section by which piece-rates were safeguarded are described elsewhere.\(^1\) In the earlier drafts of the Bill, the provision was that rates should not be changed without consultation with the representatives of the workpeople concerned. The union leaders asked for "consent" to be substituted for "consultation."\(^2\) The employers objected to the provision in either form,\(^3\) and a compromise was adopted, by which rates and prices once fixed were not to be altered except in accordance with any procedure which has been adopted by agreement between the owner of the establishment and the workmen or their representatives . . . or by direction of the Minister of Munitions, which direction shall not be given except in accordance with an agreement between the owner of the establishment and the trade unions representing the workmen affected by the alteration, or failing agreement after consultation with the parties concerned."

As amended the clause provided an agreed, elastic and adequate procedure to prevent unauthorised alterations in piece-rates, instead of imposing a general prohibition. It gave a new sanction to any existing procedure that was satisfactory to both parties, and it enabled the Minister to enforce any future agreement that might be made. In other words, it extended to changes in wages due to the special conditions of payment by results the procedure applied to changes in district rates by Section 5 of the Act. Since changes in piece-prices under the clause could be made only by consent, it was not necessary to treat such changes as a change in working conditions under paragraph (7) of Schedule II of the original Act; they were therefore exempted from the scope of the paragraph by subsection (2) of the clause. The Admiralty had at one time suggested that piece-rates could be most easily protected by bringing them under this paragraph.\(^4\)

Two exceptions were made to the clause. First, the provision did not apply to shipbuilding or ship-repairing yards, but as respects such yards the Minister of Munitions or the Admiralty might make rules regulating the alteration of the rates or prices under systems of payment by results therein. The Shipbuilding Trades Joint Committee had been asked to suggest a procedure similar to the procedure agreed on

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1 See below, pp. 137-141.
2 L.R. 139/9.
3 L.R. 5581.
4 L.R. 139/31.
between the engineering unions and employers' federation, when it was proposed to attach that agreement to the Act as a schedule. They replied that the existing procedure was adequate, and that paragraph (5) of the second schedule of the original Act gave all protection needed. The Admiralty also asked for the exemption of shipyards on similar grounds; and the shipbuilding employers objected to certain provisions, particularly the prohibition of carrying forward debit balances, in the engineering trades' agreement. Since the clause contemplated enforcing not a uniform procedure, but only agreements made by each trade itself, it is not obvious what object was served by the exemption of shipbuilding.

The other exception was as follows:

"Provided that this provision shall not apply where the alteration is made in accordance with the directions as to the rates of female workers given by the Minister of Munitions, under section six of the Munitions of War (Amendment) Act, 1916 . . ."

This exception was necessary, because the majority of female munition workers, unlike the men, were not organised in unions, and there were no agreements between employers and the unions representing the female workers like those regulating payment by results in the men's trades. The effect of the clause, therefore, if the exception were not made, would be practically to make any change in piece-rates illegal. These workers moreover were already protected by the power of the Minister, under Section 6 of the Amendment Act of 1916, to give binding directions as to their wages.

The exclusion of female workers made necessary a slight alteration in the form of the Bill. The provision protecting piece-rates was at first in the form of an amendment to Schedule II of the Act of 1915. The class of female workers to be excepted from it however was defined by reference to Section 6 of the Amendment Act of 1916. It was impossible to refer in a schedule to an Act of 1915 to a provision in an Act of 1916; therefore the piece-rates provision was given the form of a clause in the Bill instead of an amendment to the Schedule.


The discussions with the trade unions, like the evidence given before the Commission on Industrial Unrest, made it clear that the leaving certificate provision of Section 7 of the principal Act was the chief grievance of munition workers. On 7 May in the House of Commons, Mr. Kellaway was still unwilling to admit the need of repeal; by 4 June the Ministry had become convinced that repeal was necessary, and Dr. Addison proposed repeal at a conference of trade unionists. The discussion on the provision may be divided into three periods. In the first the Ministry was trying to find means of saving the

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1 L.R. 139/40.  
2 L.R. 139/32.  
3 L.R. 139/90.  
4 L.R. 139/185.  
5 L.R. 139/185.
provision by amending it; in the second, while agreeing to repeal it, it hoped to effect repeal in the measure for extending dilution and was trying to devise safeguards against the dangers attendant on repeal; in the third, it decided to repeal the provision, although it had given up for the time being the hope of securing dilution on private work by consent, and only arranged to postpone the actual repeal until the attendant safeguards could be put into force at the same time.

The Bill as it emerged from Committee in the House of Commons amended Section 7 of the principal Act to the extent of making the issue of a certificate compulsory after six weeks had elapsed from leaving work or a tribunal had found the withholding of a certificate by the employer unreasonable. In the negotiations that followed it was proposed, first, that the conditions under which the issue of a certificate was compulsory should be widened and the following draft clause was considered to come at the end of Section 5 (5) of the 1916 Act.\(^1\)

"In determining whether the grant of a certificate has been unreasonably refused a tribunal shall take into consideration whether the workman has suffered a reduction in his rate of wages or has had his earnings materially reduced by reason of his transfer to less remunerative work or by reason of a change in the method of his remuneration, and in the event of the tribunal being satisfied of the existence of any of the above conditions the tribunal shall, unless there is good reason to the contrary, forthwith issue a certificate or order the issue of a certificate by the employer."

This provision would have safeguarded the worker's wages against reduction but not enabled him to move about after higher wages. This did not, however, satisfy the opponents of the section. Another proposal, to allow the workman to change his place of employment by giving three weeks' notice, was unsatisfactory to the employers. While protesting against the proposed repeal of the section, the Employers' Advisory Committee preferred repeal to the amendment.\(^2\) The chairman, Mr. Allan Smith, pointed out, however, that the Ministry would have to take far greater control in the matter of parcelling out labour, and that it might be necessary to prohibit employers taking on men at more than the district rate.

Dr. Addison suggested the repeal of Section 7 at a conference with the Amalgamated Society of Engineers on 4 June. The decision was not made without full consideration of the risks involved. Not only were there protests from employers and supply departments,\(^3\) but the officers of the Labour Regulation Department regarded the step with misgiving. The objections to the repeal were set forth in a memorandum at the time. It was pointed out that the provision was originally introduced with the limited object of stopping "poaching" by employers and unnecessary migration of labour; the inevitable pressure on the workmen had been materially eased by the changes introduced by the Amendment Act of 1916; and the results of repeal now, however

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1 L.R. 139/14.  
2 L.R. 139/21.  
3 L.R. 139/145.
advantageous the political reactions on Labour, would be very serious economically. The memorandum continued:—

"(a) In the first place, it must be remembered that there are considerable variations between the various engineering trades in point of wages. Efforts have been made as far as possible to level rates in the same occupation, but the divergences between one occupation and another are considerable. A skilled man could easily adapt himself to a slightly different machine, and if he had complete freedom to leave and found that a new shop and a new machine would give him higher wages he would be very likely to leave.

(b) It will be remembered that considerable dissatisfaction has been produced in the engineering shops because the unskilled and semi-skilled men on machines have been earning higher rates than the skilled men who had continued to work on purely skilled jobs on time rates. It has been a very difficult matter to induce the skilled men to leave the machine to go on to purely skilled work because removal from the machines reduces their earnings. There is no doubt that the skilled men, if Section 7 were removed, would return to semi-skilled work where their earnings would be much higher.

(c) It should be noted further that in the case of certain occupations there are inferior classes of lower rated work which must necessarily be performed by the same mechanic in the course of the whole job. . . . The firm's right to remove men to the lower paid work has been upheld by the tribunal and by the High Court. In peace time economic pressure gives the employer the necessary hold, but in war time it is essential that he should be given some additional strength."

The Ministry could not rely on the possibility of military service deterring men from changing their occupations, since the Ministry could in no case allow them to leave industry, and the normal fear of unemployment was inoperative owing to the great shortage of labour.1

To these objections Sir Stephenson Kent added the fear that munition volunteers, soldiers released from the colours, and army reserve munition workers would want the same freedom.

Mr. Kellaway, while admitting the force of these objections, stated that they were far outweighed by the advantages which would be derived from the disappearance of a restriction which had irritated labour more than anything else. The decision to take the risk was based on considerations of public policy.2

Two conditions, Dr. Addison pointed out, must be attached to the abolition of the leaving certificate. Employers must be prevented from taking men from munitions to private work; and the poaching

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1 L.R. 139/3.
of labour must be prevented. The use of the workers' unemployment insurance book was suggested as a means of tracing and checking such transfers, a proposal to which the Amalgamated Society of Engineers' spokesmen raised no objection; they approved also the proposal that firms which held out inducements to the employees of another firm to leave should be stopped from engaging more men.\(^1\)

The same proposal of an embargo was discussed at considerable length with the Employers' Advisory Committee. The representatives of the Department preferred the use of the embargo to any overt provision for checking attempts to increase wages;\(^2\) but the employers pressed for a specific prohibition of any enticement by offering higher wages. The matter was discussed with the trade union committee and the expedient devised, which is embodied in proviso \((b)\) in the following draft clause:—\(^3\)

\((1)\) It shall not be lawful for a person to give employment to a workman who has, since the passing of this Act, been employed on or in connection with munitions work of the class specified in paragraph \((a)\) of subsection \((1)\) of section nine of the Munitions of War (Amendment) Act, 1916, or of any other class which may be specified in an order of the Minister of Munitions or on work to which the Munitions Acts, 1915 and 1916, have been applied by an order under this Act

\((a)\) where the work on which he is to be employed is not work on or in connection with munitions work without the consent of the Minister of Munitions which consent may be given either as respects an individual case or generally as respects work of any particular class or description;

\((b)\) where the work on which he is employed is work on or in connection with munitions work if the rate of wages (including any bonus or other consideration) offered or from time to time paid to him is higher than that for the time being applicable to other workmen employed in similar capacities by the person giving the employment; and if any person contravenes this provision he shall be guilty of an offence, triable by a munitions tribunal of the second class, under the Munitions of War Act, 1915, unless he proves that he did not know that, and had taken all reasonable steps to ascertain whether, the workman had been so employed:

Provided that in the case of a workman to be employed on or in connection with munitions work, it shall not be an offence to offer or pay him wages (including any bonus or other consideration) at a rate higher than that applicable to other workmen employed in similar capacities by the person giving the employment if the rate is not higher than that which the workman

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\(^1\) L.R. 139/22.

\(^2\) L.R. 139/21; L.R. 5581, Minutes of meeting, 17 July, 1917.

\(^3\) L.R. 139/38.
received in his previous employment, and that nothing in this section shall prevent him being employed in a higher capacity than that in which he was employed in his previous employment.

(e) Rejection of Bill by Amalgamated Society of Engineers.

With these conditions attached the repeal of the leaving certificate section was embodied in the Bill, and the Bill accepted by the Executive Council of the Amalgamated Society of Engineers subject to a ballot of their members. The members were asked to vote on it in a circular issued on 21 June, in which the Executive Council recommended it. The circular summarises the advantages of the Bill from the point of view of its critics. Power was taken to extend dilution to private work, but the extension was safeguarded by the giving of 21 days' notice in each case and by the retention of the right to strike on private work. In return, the guarantee of restoration of suspended practices was made explicit and strengthened by higher penalties, and the guarantees of priority of employment were extended and also strengthened. The security for restoration was also strengthened by the restoration of the right to strike at the termination of the war instead of twelve months later. Leaving certificates were abolished subject to the conditions given above. The compulsory extension of arbitration awards was secured, and provision made for speeding up arbitration. A promise had been secured that the Minister would not press the general adoption of payment by results, and the Bill secured workmen already under that system from any cutting of prices. There was a clause prohibiting victimisation on the ground of trade union activity—an important provision at a time when official strikes were illegal and trade union aggression depended largely on unofficial leaders—and local joint committees were promised, if a workable system could be devised.

The result of the ballot was the rejection of the Bill by a large majority. Meanwhile the report of the Commission on Industrial Unrest had made clear the seriousness of the Labour fears of dilution and the need of certain of the other provisions of the Bill. The new Minister urged the need of the Bill on a conference of trade unionists in the Central Hall, Westminster, on 1 August, and appealed again for their advice and for assistance in getting over difficulties. Some support for going on with the Bill was forthcoming from members of the Committee which negotiated the amendments; but the chairman of the Amalgamated Society of Engineers insisted that it would be unwise and would defeat its object to pass the Bill against the opposition of his members. The Employers' Consultative Committee, with whom Mr. Churchill discussed the Bill on 14 August, expressed doubts whether the dilution provision was worth the trouble it would excite; dilution on private work could be put into effect only by agreement, and

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1 L.R. 139/105; Circular M.M. 142 of 1917.
2 L.R. 139/186.
agreement could be obtained without legislative powers.\(^1\) It was decided, therefore, to postpone for the time being the extension of dilution and the more controversial among the other provisions of the Bill, but to proceed with the Bill as an agreed measure for removing certain pressing grievances which the discussions over it and the enquiries of the Commission on Industrial Unrest had revealed.\(^2\)

This meant a short Bill embodying the repeal of Section 7 with consequential amendments, the clauses affecting wages, and the clause directed against victimisation.

**VI. The Munitions of War Act, 1917.**

(a) **Reintroduction of the Bill as a Wages Measure.**

The Bill was reintroduced on 14 August and considered in Committee the next day. There were only a few days before the adjournment for the recess. Certain members misunderstood Mr. Churchill, until he explained the object of his amendments.\(^3\) The Bill was no longer a dilution Bill. On the other hand, after the pledge had been given to abolish the leaving certificate provision, he did not like to be left for the six weeks of the recess without the means of giving effect to it. He asked for certain safeguards. Other amendments embodied agreed provisions extending awards and safeguarding against victimisation. In Committee he explained that the Bill was merely an "instalment, a necessary instalment." It was welcomed by the chief opponents of the Bill in its original form, Mr. Pringle, Mr. Anderson, and Mr. Tyson Wilson, and passed through all stages without further alteration. The Royal Assent was given on 21 August.

(b) **Repeal of Leaving Certificate Provisions.**

Certain changes made subsequently to the rejection of the Bill by the ballot of the Amalgamated Society of Engineers require explanation. Section 7 of the principal Act was not repealed outright; Section (2) said "The Minister of Munitions, on being satisfied that the provisions of section seven of the Munitions of War Act, 1915, as amended by any subsequent enactment, can consistently with the national interests be repealed, may by order repeal these provisions."

The provision for delay was due to the necessity now recognised of making some provision for the skilled time-workers, who might be tempted on getting their freedom to move to less skilled, or at any rate less useful, but better paid work.

The conditions that were to come into force on repeal of Section 7 were also different from the July draft. The provision that prohibited the employment on private work, without the consent of the Minister,

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\(^1\) Verbatim Report in Hist. Rec./R/340/6.

\(^2\) L.R. 139.

\(^3\) Parliamentary Debates, 1917 (H. of C.), XCVII, 1121–22.
of a workman who had since the passing of the Act been employed on munitions work stood; but the other condition, prohibiting employment at wages higher both than those which were being paid by the employer to other men on similar work and than those which the man had been receiving in his previous employment disappeared. The views of the officers of the Department prevailed, and reliance was placed on the device of an embargo imposed under Defence of the Realm Regulation 8A (b). The Minister stated in Committee in the House of Commons that he was relying on this regulation. "I shall hold myself free," he said, "to utilise that to prevent poaching." It was also intended to amend Regulation 8B, under the Defence of the Realm Act, which prohibited enticement but had been found difficult to administer, by making it possible for an aggrieved employer to prosecute merely with the consent of the Minister, and by placing the onus of proof that he did not entice on any employer who had entered into negotiations with a workman.

The other safeguards against undue movement after repeal of Section 7 were provided in Sections 3 and 1 of the new Act. Section 3 provided that if Section 7 of the principal Act were repealed, a contract of employment in connection with munitions work should not be determinable by either party except by a week’s notice or on payment of a sum equal to an average week’s wages. Exception was made in cases in which a longer notice than one week was already required, in ship-repairing and in other discontinuous work which the Minister exempted by Order, and in cases of misconduct. The Minister stated that he relied on this as the substantial provision to prevent sudden dislocation.

(c) The Skilled Time-Workers’ Clause.

Section (1) enabled the Minister to fix special rates for skilled time-workers. It was as follows:

"If at any time during the continuance of the present war the Minister of Munitions considers it necessary, in order to maintain the output of munitions, that directions should be given with respect to the remuneration to be paid for work (being munitions work or work therewith or work in any controlled establishment), which at the time when the directions are given is paid at time rates, he may, subject always and without prejudice to any agreement made between employers and workmen with the consent of the Minister with respect to the remuneration of such work, by order give such directions with respect to the remuneration of such work as he may consider necessary for the purpose of the maintenance or increase of output."

1 Employers’ Advisory Committee Minutes, 17 July (L.R. 5581).
2 Parliamentary Debates, 1917 (H. of C.), XCVII, 1306.
3 Hist. Rec./R./221-1/41.
4 Parliamentary Debates, 1917 (H. of C.), XCVII, 1122.
The origin of this section is to be found in a proposal put by Mr. Wolfe to Mr. Kellaway on 2 July, as a substitute for the provision then in the Bill prohibiting enticement by the offer of higher wages, under which a workman might move from place to place carrying a higher rate with him.\(^1\)

"It is designed," he stated, "to meet special cases such as the tool-maker on day work leaving that work for semi-skilled repetition piece-work. The provision would enable the Minister to make Orders regulating the wages of skilled men so as to equalise them provided that they remain in the trade. This seems the least clumsy and most effective way of achieving a very necessary purpose." The difficulty had been brought prominently before the Ministry by a dispute at Messrs. Crossley Motors, Manchester, where the time-workers threatened to strike unless they received a bonus on the total output of the shops. The Commission on Industrial Unrest emphasised the same point a few days later. The draft clause was opposed by the Employers' Advisory Committee on 17 July, on the ground that a definite prohibition of enticement by the offer of higher wages was essential; they were also still raising objections to the abolition of leaving certificates, of which this proposal was a corollary.

The proposal was put before the trade union conference on 1 August, at which the Minister emphasised the anomaly of the skilled time-worker's wages. The officers in charge of dilution reported that the fear of loss of wages by skilled men was an important factor in the opposition to dilution.\(^2\) When it became necessary to revise the Bill by dropping dilution, Mr. Wolfe put forward the proposal again; the question of the skilled time-worker's wages must be settled in connection with the Bill; it was the most pressing matter before the Department. The employers would accept the proposal only on conditions; first, that it was confined to piece-work establishments; second, that it was not used where piece-work had been offered and refused; third, that increases under the clause were confined to the war period; and, fourth, that employers were reimbursed by the Government. The first two of these conditions could not be accepted, the first because a man might want to move from a day-work establishment to a piece-work establishment when it was necessary to keep him at the former; the second because it would be in effect to make piece-work compulsory, which the Ministry had refused to do. The third condition was accepted and embodied in the Act, the fourth could be arranged.\(^3\) The clause was put before a conference of engineering and shipbuilding unions on 13 August, at which Mr. Churchill said that consideration of the question must precede abolition of the leaving certificate. It was argued that all day-workers were affected but the question was not further discussed, the conference being taken up with the question of dilution.\(^4\) The Employers' Advisory Committee considered the clause on 10 August. They objected to it and proposed an alternative embodying the conditions indicated by Mr. Wolfe.\(^5\) The clause

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1. L.R. 139/138.
2. L.R. 139/185.
3. L.R. 139/193.
4. L.R. 139/165.
appears in the Act, however, substantially in the form in which Mr. Wolfe drafted it, with the provision that any difference arising respecting matters on which the Minister had given directions under the section should be referred to a special tribunal constituted under Section 8 of the Amendment Act of 1916.

(d) Section 4.

Section (4) of the Act followed necessarily from the abolition of the leaving certificate, but it had substantial and independent importance. Under Section (6) of the Amendment Act of 1916, the Minister had power to regulate by Order the wages of female workers "employed on or in connection with munitions work in any establishment of a class to which the provisions of Section 7 of the principal Act ... are for the time being applied. ..." With the repeal of Section 7 of the principal Act the differentia of this class of workers went too. In its place the Minister's powers under Section 6 of the Act of 1916 were made to apply to female workers "employed on or in connection with munitions work in establishments of all classes." This represented a considerable concession to the women's unions, who had always pressed for a widening of the area of control, and a considerable increase in the powers and responsibilities of the Ministry. The War Office had objected, on the ground that the extension might lead to interference with the wages of workpeople engaged on work for the War Contracts Department. The Ministry's powers, however, were limited to munitions work within the meaning of the Munitions Acts.

(e) Rejected and Deferred Provisions.

No further addition was made to the statutory powers of the Ministry to control wages, although the Amendment Act of 1917 was admittedly only provisional and partial. Certain additional proposals that were considered may be noted. Mr. (later Sir) Lynden Macassey had urged, in April, that provision should be made for statutory introduction of payment by results. He pointed out also that the general provision against restrictive practices, Section 4 (3) of the original Act, was largely inoperative, because an arbitrator might rule that a practice was restrictive without being able to say what should take its place, and because the Ministry could not refer a case to arbitration where employer and workmen refrained. He suggested amendments, first, empowering the Board of Trade or an arbitration tribunal to decide the "manner, extent and conditions in, to or upon which any rule or system proposed to be substituted for the suspended rule, practice or custom shall be put into operation"; and, second, empowering the Ministry to refer to arbitration the question whether any rule or practice was restrictive. The difficulties in which the Ministry of Munitions found itself in securing assent to its Bill were too great to permit of these extensions, and they were not taken up.

1 L.R. 139/14. 2 L.R. 139/39.
Certain other provisions were deferred for inclusion in the Bill it was intended to bring in, extending dilution and giving the unions the security for restoration of suspended practices which they asked. The unions had asked for a provision making the Munitions Acts binding on Crown establishments, so that the Admiralty and War Office could be compelled to go to arbitration under Part I. The War Office objected on the ground that an award or Order affecting a limited class of munition workers would affect all other branches of Government employment; their employees should therefore come under the special Conciliation and Arbitration Board for Government Employees.\(^1\) The Admiralty objected on the similar ground that employment in the Royal Dockyards was a self-contained system with standards and provisions for change of its own. The Ministry of Munitions supported the unions' claims, on the ground of mutuality, the Government establishments enjoying the benefits of the Munitions of War Acts. The Cabinet decided in November that the Acts should be made binding on Government establishments, since the present position of the arsenals and Dockyards stood in the way of the co-ordination of the Government Departments dealing with Labour, and gave instructions that a clause to this effect should be inserted in the next Amendment Bill.\(^2\)

### VII. Inadequacy of the Ministry's Statutory Powers of Wages Control.

Negotiations over the Amendment Bill, which were concerned chiefly with the securities for restoration of trade union practices, had not issued in a Bill when the Armistice came. Meanwhile the inadequacy of the powers of wages control given by the Munitions Acts had been revealed by a movement of workpeople after higher wages and a divergence of actual wages from nominal district rates which became marked in 1918. The Ministry had full control of wages only in national factories. In controlled establishments its sanction was required for any change; but this power was, as has been shown, much more limited than appears at first sight, since sanction was not needed for changes due to collective agreements or general awards or for changes affecting individuals only; it was subject also to appeal to arbitration under Part I of the original Act, and in any case the controlled establishments over whom it was exercised numbered only 6,000 firms out of over 30,000 engaged on munitions. While the Ministry's powers of checking an advance were limited it had greater powers of compelling an advance. Under the first Amendment Act it could fix by Order wages of substitutes, male or female, on skilled men's work; under the second it could give directions with respect to the payment of time work. These powers enabled it to control the wages of women munitions workers fairly effectively. In relation to men's wages, however, its powers corresponded with the theory that wages should be settled by collective bargaining, arbitration

\(^1\) L.R. 139/77. \(^2\) L.R. 139/126.
being substituted for the strike or lock-out in the last resort. The Chairman of the Committee on Production had even protested against the Order giving the 12½ per cent. bonus to skilled time-workers as a dangerous interference with the Committee's control of the problem.1 So long as the leaving certificate provisions were in operation, bargaining was not free; the individual workman was hampered in exploiting the shortage of labour; and, although complaints of poaching continued, the movement of labour was not great. When the leaving certificate was abolished and it had proved impossible to confine the special 12½ per cent. bonus to the limited class of skilled time-workers for whom it was designed, a situation developed in which powers of control more comprehensive than the piece-meal provisions of the Munitions Acts were needed. These were to hand in the Defence of the Realm Regulation 8 A., originally devised with a view to preventing the movement of labour and little used, and the Ministry was considering a proposal to use these powers to establish effective control over wages in munitions industries as a whole when the Armistice came. The memorandum containing this proposal was submitted by Mr. Campbell, the head of the Wages Section, to Sir Stephenson Kent, on 3 October, 1918. By him it was submitted to the Minister the next day with a strong minute calling attention to the administrative difficulties and the disastrous results that followed on the insufficient powers of the Ministry to deal with sectional advances and the unrest which the wages situation was causing. By the Minister it was referred to the Munitions Council on 13 October. A summary of this memorandum will indicate the wages problem with which the Ministry was faced in the last year of the war and the needs of the situation as perceived by its officers.2

The memorandum begins by pointing out that the policy of restricting changes in wages to general advances to meet increases in the cost of living and, apart from these, maintaining recognised pre-war standard rates and conditions had broken down. Bargaining had been freed by the abolition of the leaving certificate; competition for labour was constantly forcing wages up; standard rates had disappeared. The pre-war basis, it was argued, was no longer adequate;

"The distinctions between industries, due to their respective economic conditions when conducted as private undertakings in peace time, have to a great extent lost their validity now that the war has brought about a fundamental re-orientation of the whole position. The truth is that to-day there are no longer a number of separate industries serving separate and distinct demands, but one single munitions industry, serving one demand only, that of the Government. This revolution involves a revolution in all the factors hitherto determining the various industrial wage systems. Unfortunately for administration these systems had never a very scientific basis. Based on conditions which the war has suspended they are in danger of falling rapidly

1 L.R. 5997/11
2 L.R. 26039/2.
into chaos. The changes now necessary cannot be given any real permanence for the war period if they merely take the form of patching here and there the breaches made in the existing framework. The war situation is so abnormal as to require to be handled without too close a regard to post-war conditions which must be so fundamentally different. Essential post-war problems such as the restoration of Trade Union customs must be made to depend as little as possible on the administration of wages during the War."

It will be noted that on this view the second Schedule of the original Act and the wages Orders issued under the first Amendment Act, which together formed the foundation of the statutory regulation of wages and were based mainly on "a regard to post-war conditions," would be discarded.

It is then pointed out that the powers conferred by the Munitions of War Acts are wholly insufficient for dealing with the situation. The regulation of wages through contract prices and conditions, i.e., the method of the Fair Wages Clause—is also inadequate; wages standards are in a state of flux and the method is too clumsy, dilatory and indirect to be effective in a quickly changing problem; while important, it can be used only as auxiliary to other methods. A general centralised control by the State is needed. The State is the real employer, private employers and work-people only trustees for it. Just as the prices of material for munitions have been fixed, so it is inevitable if stability is to be maintained that the war price of labour should be fixed. Without stability there will be incessant labour unrest.

Coming to policy, it is pointed out that the time-rates actually paid exceed the recognised rate in a great many cases—the men's claim that in the London district the skilled engineer is receiving 5½d. an hour above the recognised rates (exclusive of Committee on Production war bonuses) is probably justified; that recognised rates vary from district to district, a variation with no justification under war conditions; and that rates vary for the same work in different industries and cannot be adjusted without reactions throughout industry. The suggestion is then made:—

"If the freedom of men to change their employment is not to be limited, it will be necessary to establish the greatest practicable uniformity of wages between establishment and establishment, district and district, industry and industry for men of the same occupation. Districts must be as few and large as possible; it may even be advisable for war purposes to regard Great Britain as a single district. Within the new districts the same rate must be paid to all men of the same trade, with such differentiations only between different industries as are directly proportionate to the difference in the working conditions of each."

Once new and uniform time-rates are established it would be necessary to adjust earnings under systems of payments by results. The variety of systems in operation is too great to standardise them,
but limits might be imposed beyond which rates should not move, a lower limit of 25 per cent. and an upper limit of 75 per cent. over time-rates being suggested. This would involve going back on the famous piece-rate pledge; but that pledge, it is pointed out, has been "one of the chief factors tending to the existing anomalies in wages," and its object, the maintenance of workpeople's confidence in payment by results, should be attained in some other way.

The skilled time-worker's grievance should be met by a high time-rate, granted within very carefully defined limits, the receipt of which should exclude from any participation in payment by results.

The machinery for revision of present wages proposed is described as follows:—

"The delimitation of districts and the settlement of time-rates and working conditions . . . . could be carried out under the authority of the Committee on Production. Time rates and conditions would be determined having regard to—

(a) The actual rates paid at present to all men of the same occupation in any industry;
(b) the traditional relationship between one grade and another and one industry and another;
(c) the relative value of the various working conditions applicable to men of the same occupation working in different jobs;
(d) pre-war rates and working conditions;
(e) the cost of living."

The standardisation of wages under systems of payment by results should be done by local joint committees with a Government representative on them. Their experience, when co-ordinated, might in time provide the materials for standard systems of payment by results.

To administer the new principles and prevent any departure from them, ample and effective powers would be needed. It is suggested that these might be found in Defence of the Realm Regulation 8A., the "embargo" regulation. Though intended primarily to regulate the engagement of work-people, it had been used in the case of the London sheet-metal trade to enforce certain wage-standards, by prohibiting the employment of workers (without the permission of the Minister) at other than the standard rate. As used in this case, the Order allowed an exception in the case of any worker receiving more than the standard at the time of the issue of the Order, and allowed such a worker to take his higher rate with him to a new place; but it could be used simply to enforce the standards and conditions decided in accordance with the principles outlined above.

The regulation contemplated would involve withdrawing the guarantee that the dilutee on skilled work should have the same wage as the skilled man. He might receive the skilled man's pre-war rate; but the irritation arising from anomalous relations would persist if the skilled man saw the unskilled dilutee receiving the same wage as himself. The safeguard which the skilled man required of restoration of pre-war conditions should be given in some other way.
Finally, such a re-organisation should be accompanied by an equivalent regulation of contractors' profits. Sir Stephenson Kent added that a definite statement of the Government's labour policy and an attempt to restore the authority of the trade union leaders should be made at the same time. "In my view," he said, "labour unrest in this country at the present time is more acute and more dangerous than at any period of the war."

Thus the responsible officers of the Ministry, by the end of the war, had been forced to the conclusion that they could exercise effectively the control over wages forced upon them only if they were empowered to control wages completely. The practical proposals put forward were only tentative and had not gone beyond the stage of preliminary discussion when the Ministry came to an end; they had not yet secured the serious consideration of the Minister, and it may be doubted whether in any event they would have been adopted; but they make clear the position to which the administration had been reduced. The attempt to preserve the status quo had broken down; and the principal factors in bringing about that break-down were the very measures—the piece-rates pledge, the guarantee of skilled rates to substitutes, and the preservation of the ordinary methods of private bargaining—which had been designed to preserve the status quo. In an earlier part of this history, it is pointed out that the tendency for labour to drift in the direction of higher wages, which the leaving certificate was designed to check, might have been dealt with by equalising the rates of wages, but that method was not contemplated, and that the attempt to introduce uniformity into the endless variety of wages paid would have been to attack the question on its most intricate side. By the end of the war the Ministry had been compelled to contemplate that method as the only effective method.

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CHAPTER III.

SETTLEMENT OF MUNITION WORKERS' WAGES OUTSIDE THE DEPARTMENT.

I. Local and Sectional Awards by the Committee on Production.

It has been pointed out in the last chapter that the Ministry of Munitions had no general power to control munition workers' wages during the first eighteen months after its establishment. Such control as it exercised consisted essentially in the support of standard district rates in munition establishments, and the adjustment as far as possible of proposed changes of wages in accordance with these recognised rates. But these established rates, on whose existence the possibility of centralised control of wages as administered by the Ministry necessarily depended, changed constantly though irregularly after the first six months of the war, either as a result of voluntary agreements between associations of workpeople and employers, or as a result of awards by the Committee on Production; while an isolated award by the Committee, or by a single arbitrator appointed by the Chief Industrial Commissioner, on a wage dispute in some important individual firm, although it did not establish a new district rate, yet often served as a precedent for a stream of applications to the Ministry for sanction to similar advances by firms in the same district and area.

The Committee on Production was therefore the principal authority controlling wages. Appointed in February, 1915, by the First Lord of the Treasury, to enquire into and report on questions connected with production in engineering and shipbuilding work, on 21 February, 1915, its terms of reference were extended by empowering it to deal with any differences referred to it by persons engaged on Government work. Between this date and the beginning of the following July, it issued awards on thirty-nine cases. On the passing of the Munitions of War Act it became a statutory arbitration tribunal under the Act, to hear and determine disputes between employers and employed arising out of munitions work. The original members of the Committee were Sir George Askwith, Sir Francis Hopwood, Sir George Gibb. In August, 1915, Sir David Harrel took the place of Sir Francis Hopwood, and subsequently Lord Balfour of Burleigh was appointed an additional member. On 1 May, 1917, the Committee was reconstituted and enlarged, representative employers and workmen being added, so that by sub-division into several panels it could deal with the increased work brought to it. Its members were then as follows:—Sir David Harrel and Sir G. Gibb (Chairmen), Mr. F. S. Bufton, Col. Denny, Messrs. J. D. Elliott and G. J. Rowe. A third panel was added in July, consisting of Messrs. W. W. Mackenzie, J. W. White, and
W. Mosses. In 1918, Judge Walworth H. Roberts, and Mr. E. C. K. Gonner were added as Chairmen. Mr. H. J. Wilson acted as its Secretary from February, 1915.

The records of the awards issued by the Committee, which ranged over the whole wide and indeterminate field of munitions labour, therefore supply the key to the periodic wage movements in the munition trades as a whole. Obviously, its work as measured by the 641 awards issued up to 1 January, 1917, and the 3,754 issued by the end of 1918, in no way superseded voluntary local settlements and adjustments of wages. These, however, tended increasingly to fall into line with the binding awards issued by the Committee.

The claims for advances in wages which were reported as "differences" to the Committee on Production fall roughly into three classes, (1) those based on the increased cost of living due to the war; (2) those which turned partly on the rise of prices, but which also contained demands for the adjustment of local inequalities of wages in cases where the remuneration in one firm or area was said to be markedly below that of the district or industry as a whole, or for similar adjustments between one class of worker and another—the ironfounder and fitter, the steel drawer and furnaceman—within the same industry; (3) those which involved special customs, again peculiar to the firm, district, or industry, with regard to the payments for overtime, Sunday, or holiday work, the remuneration of apprentices, etc., or which turned on the intricacies of the local application of piece-work or of premium bonus systems of payment.

The two latter classes, interesting though they may be in the industrial history of the country, and important though the awards of the Committee on Production were in laying down lines of policy and in helping to reduce to order some portion of the local eccentricities in remuneration which modern industry has inherited, are yet chiefly of local and sectional interest. The great majority of the applications considered by the Committee on Production fell ultimately into the first class, and depended on the rising prices directly due to the war, and it was therefore possible to treat them on consistent lines.

The awards of the Committee dealt principally with the shipbuilding, foundry and engineering trades, to which the great majority of male munition workers belonged. The iron and steel, woodworking and chemical workers, and the members of all the 40 and more trades engaged on munition work, also came within its sphere, and received awards, while other men and women engaged on Government work of many kinds—dock labourers, cotton and flax and jute workers, sail makers, building men, gasworkers, army boot and shoe makers, ropemakers, tramwaymen, also appealed to it, voluntarily or compulsorily, for the settlement of their disputes. But the movement of wages in the highly organised shipbuilding and engineering trades served constantly (as appeared in the agitation over the 12½ per cent. bonus in the winter of 1917) as a precedent for wage demands in all other munitions trades. Therefore, a summary of the main advances in wages,
based on increased cost of living, in the engineering and shipbuilding trades, indicated the main lines of advances throughout the munitions trades.¹

II. Cycles of Advances.

These advances fell into seven main periods, and, with local modifications, involved the following changes in rates of wages in trades represented by the 30 or more trade unions signatory to the standing agreement with the Engineering Employers' Federation, and the trades signatory to or moving parallel with the standing agreement with the Shipbuilding Employers' Federation.

<table>
<thead>
<tr>
<th>Approximate dates covered.</th>
<th>Kind of Advance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Cycle ...</td>
<td>4s. on time rates, 10 per cent. on piece-rates.</td>
</tr>
<tr>
<td>February, 1915 to September, 1915</td>
<td></td>
</tr>
<tr>
<td>2nd Cycle ...</td>
<td>3s. on time rates only.</td>
</tr>
<tr>
<td>May, 1916 to November, 1916 ...</td>
<td></td>
</tr>
<tr>
<td>3rd Cycle ...</td>
<td>5s. to time and piece-workers.</td>
</tr>
<tr>
<td>April, 1917 (National Agreement)</td>
<td></td>
</tr>
<tr>
<td>4th Cycle ...</td>
<td>3s. to time and piece-workers.</td>
</tr>
<tr>
<td>August, 1917 (National Agreement)</td>
<td></td>
</tr>
<tr>
<td>5th Cycle ...</td>
<td>5s. to time and piece-workers.</td>
</tr>
<tr>
<td>December, 1917 (National Agreement)</td>
<td></td>
</tr>
<tr>
<td>6th Cycle ...</td>
<td>3s. 6d. to time and piece-workers.</td>
</tr>
<tr>
<td>June, 1918 (National Agreement)</td>
<td></td>
</tr>
<tr>
<td>7th Cycle ...</td>
<td>5s. to time and piece-workers.</td>
</tr>
<tr>
<td>November, 1918 (National Agreement)</td>
<td></td>
</tr>
</tbody>
</table>

By the end of the year 1918, therefore, timeworkers in these trades had received a total war advance of at least 28s. 6d., due to the "abnormal circumstances of the war." Piece-workers had received an increase only of 10 per cent. on their pre-war rates, but had also received a weekly bonus of 21s. 6d. under the national awards of 1917-1918. It was expressly stated that this sum and the similar advance of 1916, while they were to be taken into account in calculating overtime payments, etc. (i.e., they were not to be treated merely as war bonuses), were not to affect piece-rates. New piece-work prices fixed after 1915 were accordingly understood to be based on the pre-war time rates plus the war advance of 4s. given in 1915.

In addition to these advances the great majority of time-workers throughout the munition trades (and subsequently many other trades) received in the autumn and winter of 1917, a special advance of 12½ per cent. on earnings, "not to affect or become part of their time

¹ Two large classes of workers must be excepted. (1) Women munition workers were granted advances on a lower scale by a separate tribunal; and (2) wages in the iron and steel trades advanced under sliding scale schemes, normally in accordance with the selling price of their product.
rates," while a very large number of piece-workers received, early in 1918, a similar advance of 7½ per cent. These advances were not primarily aimed at meeting the increased cost of living, nor were they, in their early stages, administered by the Chief Industrial Commissioner's Department. Their contentious history will, therefore, be considered separately.

As a result partly of these special advances and partly of the comparative stability of prices since the December national advance, the Committee on Production rejected, in February, 1918, the application for further increases from the engineering and shipbuilding trades, which would, if granted, have added yet another cycle of advances on standard rates.

The process by which some of these advances were secured is worth recording in some detail. It illustrates the gradual breakdown of the system of sectional changes in wages, a breakdown which led up to the important movement for national advances developed in the engineering and other trades in 1917, and, secondly, the delays involved in the established systems of settling disputes between federated firms and trade unions. These delays (strictly the result of constitutional procedure described above) were probably responsible for a large portion of the complaints of tardiness in settling disputes during the war, when industrial conditions and prices were rapidly changing.

The advances in wages obtained in the first year of the war have been summarised above. Of these the most important was the advance of 4s. a week or 1d. an hour, and 10 per cent. on piece-rates, awarded to Clyde shipbuilding workers on 1 March, 1915. This was the first award made by the Committee on Production. It was followed by an award of the same amount to the engineering workers in the same district, in settlement of the dispute that led to the February strike on the Clyde, and instituted the first of a series of comprehensive awards by which the Committee came to regulate wages gradually.

Following these awards came a series of further advances, spreading slowly over the whole country. The waves broke very irregularly over different areas. Well-organised districts such as Sheffield, London, Newcastle and Edinburgh got their 4s. and 10 per cent. advance for skilled workers in the course of the next two months. To others, where the engineering trade unions were less strong, similar advances came in sections and at intervals. Thus at Preston the engineering trades received an advance of 3s. and 7½ per cent. in April, and 1s. and 2½ per cent in June, 1915; at Lincoln there were advances in these trades of 2s. in April, 2s. in November, 1915; at Weymouth, 2s. in February, 2s. in December, 1915; at Huddersfield, 2s. in May, 1915, and a second 2s. only in January, 1916.

Unskilled labour in the same industry also obtained advances, generally without having recourse to arbitration at this time, but on less good terms than were awarded to the skilled men. Thus employers, having agreed or being compelled to give advances of 3s. or 4s. to

1 Chap. I.
their skilled workmen, not infrequently made, spontaneously, similar but rather lower advances, 2s. or 3s: a week, on the low wages of their labourers; these advances were often given only by way of bonus, not of an addition to their standard wages.

The amount of friction caused by these spasmodic advances, and the negotiations leading up to them, is of very great importance in judging the relationship of labour and capital in the first year and a half of the war. By the end of 1915, however, almost all of the districts covered by the organisation of the Amalgamated Society of Engineers had obtained—in most cases by agreement not by arbitration award—their 4s. and 10 per cent. advance for skilled workers. This represented for those employed on time work an increase of about 10 per cent. on pre-war rates, as against a corresponding rise of food prices claimed on the authority of the Board of Trade to be 42 per cent. in January, 1916. The shipbuilding trades had received the same increased rates.

The advances which had so far taken place had been arranged either by negotiation or award between local associations of the engineering employers and trade unions, or by similar agreements or awards for individual firms. The Committee on Production dealt, at this period, with a considerable number of purely “domestic” applications for increases in wages based on the general pressure of increased cost of living.

Claims for a second series of advances were beginning to be made in the autumn of 1915 by the engineering and shipbuilding trade unions, whose representatives urged that the increase of wages obtained was, on the statistics quoted above, quite incommensurate with the increased cost of living. To this, however, both employers and the Government offered resistance. The Secretary of the Shipbuilding Employers' Federation, in reporting to the Chief Industrial Commissioner's Department their refusal to consider even an informal conference with the trade unions concerned on the question of a further increase, urged that the policy of further wage advances—claimed not on general grounds but on those of increased cost of living—was one for the Government's immediate consideration.1 “Every effort was being made to carry through all government work with reasonable economy in the best interest of the whole country.”

The attitude of the Government was made clear within two days of the despatch of this letter.

On 1 December, at a conference of a thousand representative trade unionists at the Central Hall, Westminster, an appeal was made on behalf of the Government that more demands for further wage advances should, in the national interest, not be pressed. The Prime Minister explained the urgent need for economy. War votes since August, 1914, had reached £1,662,000,000. Four and a half million workpeople had already received advances of wages averaging 3s. 6d.

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1 M.W. 67820.
a week, while the increase in earnings would be considerably greater. Mr. McKenna, the Chancellor of the Exchequer, urged the necessity of thrift with much vigour.

"Those who demand higher wages," he said, "must show themselves worthy of higher wages. They must show they can save in the interests of the State and their neighbours, their families and themselves. And when they have shown they can save, then with clean hands they can come into court and say 'our labour is worthy of higher pay. We have earned it from the State and we are helping the State not only with our hands but with our money.' Until you can do so, you are not justified in asking for higher wages for a special trade to the injury of all other classes of the community."

The audience did not accept with unqualified approval this initiation of the War Economy Campaign, for some months later looked on with distrust by numbers of working men. 1 After some debate, however, they resolved to commend to the trade unions which they represented the earnest and favourable consideration of the statements laid before them.

III. The "Embargo" on Advances.

(a) Policy of Checking Wage Increases.

In furtherance of this policy of checking wage advances in the interests of national economy the following minute of November, 1915, was communicated by the Government to the Committee on Production.

"His Majesty's Government have given earnest attention to the financial position of the country, to the great and increasing demands which will still be made upon its resources to meet the needs of the war and to the imperative need for economy in all forms of expenditure and consumption, both public and private. They have also had regard to the general advances of wages that have already been given since the beginning of the war and to the measures already taken to tax or limit the profits of undertakings. H. M. Government have come to the conclusion that in view of the present emergency any further advance of wages (other than advances following automatically from existing agreements) should be strictly confined to the adjustment of local conditions, where such adjustments are proved to be necessary."

The Committee on Production accordingly, when giving its decision on various applications for advances at the end of 1915 and the beginning of the next year, found the men's claims not established.

1 "Economy has been the bane of our existence. We have had to exist under its influence from our infancy upwards," said the spokesman of the Engineering and Shipbuilding Trades Federation on the deputation of 22 June, 1916, referred to below.
Manchester led the way in an application to the Engineering Employers' Association from the joint committee of twelve engineering and kindred trades unions for an advance of 6s. per week on time-rates and the equivalent on piece-rates, on 28 October, 1915. The established procedure took its course and the demand was discussed at a local conference on 17 November, and at a central conference on 10 December; no settlement having been arrived at, it was referred to the Committee on Production, which heard the claim on 4 January, 1916, and on 7 January, having 'regard to all the circumstances and to the communication of His Majesty's Government,' decided that the claim was 'not established.'

A similar application was heard by the Committee on Production on 20 January, on a claim for 2d. an hour on time-rates and an equivalent advance on piece-rates from the Federation of Engineering and Shipbuilding Trades (Clyde District Committee), representing seventeen trade unions and including for the first time representatives of the unskilled workers (the Clyde engineers had since the previous spring endeavoured to obtain a further advance on that awarded to them by the Committee on Production in March, 1915). At this hearing,—which represented the first claim for an advance by industry rather than by craft—the employers' associations—the North-West Engineering Trades Employers' Association, the Clyde Shipbuilders' Association, the Scottish Sheet Metal Workers Employers' Association, the Scottish Coppersmiths' Employers, the Scottish Steel Makers Wages, the National Light Castings Ironfounders' Federation and the Scottish Employers' Federation of Iron and Steel Founders—desired to record their protest at the procedure adopted by the unions in formulating a collective claim, notwithstanding the existence of agreements providing, in the case of some of the unions, recognised machinery for the discussion of wages and other questions.

In this case the Committee referred to its award of 23 March, 1915, and found that the claim for a further advance had not been established except in the case of those semi-skilled and unskilled workmen who had only received an advance of 3s. or 3½d. per hour in the previous year. Their advance was increased by another 1s. or ½d. per hour, with a similar advance in piece-rates to 10 per cent.

Other claims, though on a less comprehensive scale, were refused at this period—from the Clyde Coppersmiths, the Engineers and Allied Trades of Sheffield (in March), the Scottish Ironmoulders, the Engineering and Shipbuilding Trades of Liverpool, Birkenhead and Mersey Districts (whose rate had been brought up to 46s. for repairs and 43s. for new work by July, 1915) in April; the Southampton Engineers in May, etc. A long drawn-out dispute on a claim for a similar advance was heard on 16 December, 22 February and 5 April, between the Shipbuilding Employers' Federation and the Shipbuilding Trades Agreement Standing Committee representing the Shipwrights' Association and nine other unions having members in the shipyards. They claimed an advance of 15 per cent., but were
refused (13 April). On the same day a claim from the boilermakers for a second advance, this time of 2s. on time and 5 per cent. on piece-rates, was refused.

Similar refusals were given to the employees of a number of individual firms throughout the country—Messrs. Fairfields, machine-men (13 April); Messrs. Harland & Wolff, platers' helpers (25 May); plumbers at Messrs. Cammell Laird, Birkenhead (9 June, 1916), etc.

Altogether some 70 applications were refused by the Committee on Production, while some 110 were granted or partially granted out of all the cases (not all involving munition work) brought before the Committee on Production between 1 December, 1915, the date of the meeting above described, and 22 June, 1916, when a formal deputation on the question of prices was received by the Board of Trade.

Exceptions to this policy of refusal were made in the cases of certain districts and occupations which in 1916 had for various reasons only received 3s. or 7½ per cent. advance in 1915. Thus Bradford, Leeds, Halifax and Barrow received an extra 1s. or 2½ per cent. for members of the local Engineering Trades Joint Committee on 27 May. Only a few groups of skilled engineers belonging to the organised trades still remained to claim such an advance in 1916—an advance bringing their time wages normally to about 42s.

In most districts, however, the labourers and semi-skilled workers had only had at most 3s. advance (or 3d. an hour) in 1915. There had been few arbitration awards for them. Employers had generally granted their advances in the wake of the skilled men though on a lower scale (as on the Clyde). In 1916, however, partly as a result of the growing activity of the unskilled and semi-skilled workers' unions, a very considerable number of claims were received and awards made by the Committee on Production for labourers (of all types, not only those concerned with the engineering trades).

The low earnings obtained by the engineering and foundry labourer if he were paid on time-rates, and had no opportunity of putting in extra hours of work, made such an advance in rates most important to himself and his dependents. Thus on 7 January, 1916 (when it refused the claim for a 6s. advance from the skilled workers of the same district), the Committee on Production awarded an advance of 1s. a week with the conversion of their 3s. a week war bonus into war wages, for Manchester unskilled and semi-skilled men in the engineering trade. These men were receiving a minimum rate of 21s. a week with 3s. war bonus dependent on time-keeping, and the National Union of Gas Workers and General Labourers, the Workers' Union and the British Labour Amalgamation were claiming from 9 October 6s. advance on these time rates, and 17½ per cent. on piece-rates. The claim had been discussed at a local conference on 11 November, and at a central conference on 10 December without result. On 10 January, the wages of the Sheffield labourers employed by the Sheffield Engineering Trades Employers' Association and Messrs. Hadfield, were raised by 1s. above their previous minimum time-rate of 23s. 6d. a week plus 3s. war bonus,
and this was extended on 15 March to all classes of semi-skilled and unskilled workmen on time rates who had received less than 4s. a week advance. Similar advances were made in a number of districts.

The principle which led to the Government's discouragement of wages advances,—a principle whose application the Committee on Production was left to enforce—was that the munition workers like other members of the community should take their share in the national burden caused by the rise in prices,¹ and in many cases, it was admitted, the munition worker was in fact obtaining a much larger "real" as well as "nominal" income, than he had before the war. The Prime Minister, however, had explained in answers to questions in Parliament on 20 January and 7 March, and to a deputation from the Parliamentary Committee of the Trade Union Congress that the Committee on Production was not fettered by the Government's communication with regard to all classes of labour. The Government had no wish to limit finally the wages of any class of low-paid wage earners or of those who had not received adequate advances to recompense them for the rise in the cost of living.

(6) Increasing Discontent of Workers.

In spite however, of this discrimination in favour of some classes of industrial workers, much discontent was growing up among munition workers in the spring and early summer of 1916, owing to the constant rebuffing of their claims. Overtime with its opportunities of extra earnings was being curtailed, prices were still rising, there was constant suspicion of "profiteering," and the whole process of fruitless negotiation by successive conferences and by arbitration was a weariness to the flesh even of the most buoyant trade union organiser. Such discontent readily assimilated with that produced by other causes, such as the operation of the Military Service Acts and the spread of dilution then beginning to be felt. Discrimination, however reasonable in itself, was certain to produce discontent among the workers whose claims were ignored. Moreover, the Government's policy was never made clear to Labour. The Cabinet's minute to the Committee on Production was not made public until the Committee had acted on it for two months; the grounds for restricting advances and the exceptions that would be made were not explained early enough and fully enough; and the Committee on Production was required to give effect to a policy that was never clearly defined.

The embargo was indeed a fundamental breach of the principle on which the regulation of wages had been based. In effect it reduced the Committee on Production to the position of an instrument of the Executive Government, and substituted control by administrative instructions for unfettered arbitration. The unions perceived this quite clearly.

Thus on 5 April, when the application of the Shipyards Trades Standing Agreement Committee to the Shipbuilding Employers' ¹ On these grounds, the income tax had been, by the Finance Act of 1915, extended to the weekly wage earner.
Federation was being heard, Mr. Wilkie explained that the embargo was shaking the workers' acceptance of the whole system of compulsory arbitration.

"It was a big fight to get the workmen to agree to arbitration, and in some cases it was a bigger fight to get the employers to agree to it. Some of us have been fighting for reason to settle these matters instead of force all our lives, sometimes with success, sometimes not. Our men are skilled artisans who understand the thing just as well as we do here, and they are very strong up against this action of the Government, which is reducing arbitration before you to a farce. That is a point I want to press. . . . The Committee on Production should not be bound by the views of the Government. The men hold very strongly that the Government in itself has no more right to override the Act of Parliament than any other body or any other citizen."

On 25 May, 1916, accordingly, an appeal was sent to the Prime Minister on behalf of the Engineering Trade Unions.

"I am directed by the Engineering Trade Unions to bring to your notice a discussion which took place at a Central Conference at York between the Engineering Employers' Federation and the engineering trade unions with reference to wage advances and the ever-increasing cost in the commodities of life.

"We gave consideration to the almost universal demand on the part of our members for wage advances owing to the enormous increases in the cost of living since the outbreak of the European War. We further gave consideration to constant refusal both by the Committee on Production and the Engineering Employers' Federation, to grant wage advances, and the consequent irritation and unrest which exists in the workshops and homes of our country.

"In asking your Government to give consideration to this important problem, we desire to bring to your notice the fact that 4s. for a weekly advance appears to be the basis upon which it is difficult to secure any advance in wages to our members. This sum represents roughly 10 per cent. on the total weekly wages of our members. It is unnecessary in this connection to remind you of the fact that the increase in the cost of living represents about 50 per cent.

"Our members are arguing that £1 is worth no more than roughly 11s. for the purposes of purchasing food and the other primal necessaries of life. . . . I am therefore requested to send in for the consideration of your Government, that steps be at once taken to limit the prices of food stuffs, or alternatively to agree to such advances in wages as shall be regarded as a fair compensation. Our only desire is to co-operate in every possible way with the Government in harmonious working for the final victory of our country. Will you please regard this as an urgent matter?"

The whole position with regard to the adjustment of wages to prices was discussed at a deputation from the Federation of Engineering and Shipbuilding Trades and the Trade Union Parliamentary
Congress to Mr. Harcourt at the Board of Trade, on 22 June, 1916, when Dr. Addison was present.

Mr. J. Hill stated the case for the Federation of Engineering and Shipbuilding Trades in arguments repeated scores of times by others before the Committee on Production and on labour platforms.

"We ask the Government to immediately reduce food and fuel prices to their pre-war level, or alternatively to remove the embargo placed by them on the Committee on Production against the general advance of wages to meet increases in the cost of living. We have decided to give preference rather to the reduction of the cost of living than to the increase in wages because this does not work out fairly. Some strongly organised trades can get advances, and I believe we have cases of certain trades in this federation who have had advances for sections of their members almost equivalent to the increase, but that is the very rare exception. All of us in this federation have had some advances of wages, and generally our advance has amounted to something like 4s. per week on time-rates and 10 per cent. on piece-rates."

Prices, he urged, had risen by at least 60 per cent. Unfair profiteering was taking place in some quarters. "We are not profiting by the position we are in; we are losing." The Committee on Production had become a by-word. Instead of being a fair arbitration court it had acted for the Government in keeping down wages.

The next labour spokesman repeated these points with emphasis. Exploitation was rampant throughout the country, and the only sufferers were the working classes. The men had carried out the obligations entered into in March, 1915. If the Government did not propose to do so equally in its dealings with capital it should free them from their undertaking. The Committee on Production had been most disappointing as a court of arbitration.

Mr. Harcourt in reply held out little hopes of a different policy either with regard to wages or control of prices. He pointed out that the so-called embargo was not intended to apply to the lowest paid workers. The Committee on Production had already levelled up earnings in many ill-paid trades. The 4s. and 10 per cent. advances already awarded in no way represented the increase of earnings by munition workers. Thus in the case of a firm in the North of England, where a claim for an advance had been sent in on behalf of 5,000 employees, the average increase in rates of payment between 1914 and 1916 had been 3s. only, whereas the increase of earnings had been 19s. 6d. per week. The average increase of earnings among the workmen appearing before the Committee on Production had been about 40 per cent. This fully counterbalanced the rise in the cost of living which, excluding taxation, amounted to 40 per cent. Increased opportunities of family earnings further added to the weekly incomes of many munition workers.

"The fact is," he stated, "we must all sacrifice something and adjust our scale of living, except the very poorest, and these, it is admitted, cannot do so." A committee had been appointed to enquire
into food prices, but so far "all experts were against fixing maximum prices, the failure of which in Germany was well known. . . . . It is better to have plenty dear than a scarcity still dearer by competition by consumers for the purchase of insufficient supplies. . . . . I promise you," he concluded, "to continue to watch the relation of wages to the cost of living, but I can say no more than that, and I make no definite promise of any immediate change."

IV. The Second Cycle of Advances.

After this conference, although no definite change of policy was announced, a second cycle of advances in wages began, initiated as before by awards of the Committee on Production to the engineering trades in highly organised districts and followed by agreements in individual firms between non-federated employers and their men. The normal award at this period consisted in an advance of 3s. to time-workers only, "not to apply to or affect piece prices," and was intended in part to rectify the disproportion, already complained of, between the earnings of the timeworkers and the pieceworkers who were frequently less skilled but better paid. 1 Thus the principle of adjusting the share in the common burden of high prices to those best able to bear it was maintained. These advances spread in the course of the autumn to the less organised districts and the less skilled workers. The Cardiff and Bristol engineers had their 3s. advance in July, the boilermakers and shipbuilders and the engineers of Glasgow, Birmingham, Newcastle and Sheffield in August, those of Weymouth in September, Lincoln (2s. only) in October, Preston, Blackburn, Halifax in November, Grantham and Ipswich in December.

The men at this time normally claimed advances of from 6s. to 10s., and much discontent was shown, especially at Barrow and Sheffield, on the Clyde and Tyne, at the small increase given. 2 In the hearings before the Committee on Production, their pent-up irritation over their previous rebuffs found vent. Prices, they said, had gone up at least 50 per cent. (70 per cent. in Sheffield, according to the representatives of the smaller engineering trade unions in that district); time wages even after the last rise had only increased by 7s., 15 to 20 per cent. at most, on their pre-war rates.

In industries connected with the engineering trades, such as some of those engaged on steel production, wages had advanced from 60 to 80 per cent. while the skilled workmen who dealt with the same material in its later stages had a much smaller increase. It was, they urged—and this was repeated a hundred times in successive hearings—grossly unfair to consider earnings rather than rates of wages in fixing advances required by increased cost of living. Clearly a man should not be penalised for wearing himself out in overtime work, by having the income thus secured quoted as a reason for not increasing his standing wages.

1 cf. Committee on Production awards, 56, 57, 59, 63, 65, 71, of 1916.
2 cf. A. S. E. Journal.
"The previous replies we have got," urged the representatives of the shipbuilding trades during an arbitration in August, 1916, between themselves and the Shipbuilding Employers' Federation, "have struck deep into the roots of the shipyard workers against what is called compulsory arbitration. They think they have not got fair play in this matter. Some of us have been blamed because we have helped to get these things into force for the sake of our country."

The employers, on the other hand, while professing their complete readiness to pay any advance prescribed by the Committee on Production for timeworkers, and especially for low-paid timeworkers, normally represented that they themselves were constantly urged to economy by the Government and especially by the Departments from which they received their contracts; that in a very large number of cases workers could greatly improve their income by better time-keeping; and that the admittedly large earnings of some timeworkers and of most pieceworkers must logically be taken into account in arranging compensation for the phenomenon of increased cost of living.

Between these two groups of arguments, constantly repeated, the Committee on Production had to decide; and the 3s. advance to timeworkers represented in its findings the point of equilibrium.

V. The Movement towards National Advances.

During the autumn of 1916 the failure of the established system of providing for changes of wages in the engineering trades became evident. The trade unions, by their local representatives, continually asked for advances in wages. These applications were referred to local conferences, at which almost invariably no agreement was reached, and thence to the monthly Central Conference at York, at which again the parties normally failed to agree; the question was then reported to the Board of Trade as a difference under Part I of the Munitions of War Act, and was referred by the Board of Trade to the Committee on Production.

The same barren routine was followed in the shipbuilding trades, while in both groups of trades during the preliminary negotiations, at conferences, and at the hearings before the Committee on Production, the same facts and arguments were perforce reiterated by employers and workmen, the same calculations about the rise in the cost of living were made, based on quotations from the Labour Gazette and supplemented freely by the speakers' domestic experiences; the same attempts were made to distinguish between wages and earnings as a basis for war advances; the same criticisms of the workers' time-keeping were offered by employers and rebutted by workmen; the same readiness was expressed by the workers to shoulder a share of the national burden of high prices, so long as that share was fair and profiteering in all its forms was restrained, and by the employers to raise wages so long as the necessity for this could be definitely proved by the incidence of high prices on the workers.
This process clearly involved much waste of time and temper among all the parties involved; and since the output of munitions and not the adjustment of wages was at the time the more obvious national necessity, it became increasingly desirable to curtail the existing procedure.

After the monthly Central Conference of 11 October, 1916, between the Engineering Employers' Federation and the Engineering Trade Unions at York, when all the twelve district applications for wage advances received were refused by the employers, action was taken by both trade unions and employers to remove the deadlock.

The Amalgamated Society of Engineers' monthly journals of February and March, 1917, thus described the society's part in the succeeding negotiations.

"A special conference of organised district delegates of the Amalgamated Society of Engineers was held, owing to a letter from the Executive Committee to the Engineering Employers' Federation giving notice of the society's intention to raise the question of suspending the holding of central conferences on wages applications during the period of the war. The result of recent central conferences with reference to wages applications in which the employers had made offers totally inadequate to the merits of the case which could not be accepted by the Executive Committee . . . justified the Council in suggesting a suspension of these conferences during the present national emergency."

The employers replied that they would refer this question to their Emergency Committee and meanwhile all wage references discussed at local conferences were referred, so far as the Amalgamated Society of Engineers was concerned, to the Committee on Production direct.

At the beginning of the next year (1917) the Chief Industrial Commissioner communicated with the Amalgamated Society of Engineers and fifteen other trade unions connected with the engineering and foundry trades, suggesting for their consideration (as for that of the Engineering Employers' Federation) "Whether a more simple procedure could not be adopted with regard to the various pending claims for advances of wages, due chiefly to the increasing cost of living, taking care to preserve for the period after the war, and to avoid infringing upon, the various arrangements of Conciliation Boards, Conferences, etc."

Conferences of representatives of these trade unions met under the chairmanship of Sir G. Askwith and considered this proposal on 30 January and 5 February, 1917, and the following memorandum of agreement was drawn up between them and the Engineering Employers' Federation, providing for the consideration by the Committee on Production, at four-monthly periods during the war, of the need for general alterations in wages—awards on such general alterations to be of national application to all federated firms in the trade concerned.
Memorandum of Agreement between the Engineering Employers' Federation and the Unions connected with the Engineering and Foundry Trades, arrived at in February, 1917.

It is agreed that, having regard to the special circumstances of the war, the following shall be the principles upon which wages changes shall be arranged for the period of the war:—

1. That existing agreements or practice under which applications for general alterations in wages are dealt with shall to that extent be suspended until the termination of the war or for such further period as may be agreed upon by the parties thereto. This shall not refer to agreements or practice whereby the wages of any trades in any district or department rise or fall with the fluctuations in another district or industry not covered by this agreement.

Nor shall it prevent the Unions bringing forward for special consideration at the hearings referred to in paragraph 2 (a) the case of any district in which they claim that the rates of wages are unduly low or that the total amount of war advance is not adequate.

On the other hand, the Federation shall be entitled to bring forward for similar consideration any special cases they desire.

2. During such period of suspension the following procedure shall be observed, provided the consent of the Committee on Production is obtained:—

(a) The Committee on Production shall in the months of February, June, and October, after hearing parties, consider what general alteration in wages, if any, is warranted by the abnormal conditions then existing and due to the war.

(b) The award of the Committee on Production shall be an award under the Munitions of War Acts and shall be of national application to all federated firms in the branch of trade concerned.

(c) The first award shall take effect in all districts on the first full pay day in April and the altered rate shall continue until amended by a further award in accordance with the provisions hereof. Subsequent awards shall specify the date upon which the alteration awarded shall take effect.

The following Memorandum was also agreed between the parties:

"The Engineering Employers' Federation and the Unions whose signatures are appended hereto recommend to His Majesty's Government that arrangements should be made whereby all employers in trade or trades affected should be subject to the awards which may be made by the Committee on Production in virtue of the agreement hereto attached."

As is explained above, the principle of the rider was accepted by the Government and embodied in the 1917 Amendment Act.¹

¹ See above, pp. 44 and 48.
VI. National Awards.

At the first general application to the Committee on Production under the terms of this agreement, the Chairman of the Executive Committee of the Amalgamated Society of Engineers claimed on behalf of his society and thirteen kindred organisations, an advance of 10s. on time rates and 25 per cent. on piece prices, since food prices had advanced 89 per cent. since July, 1914. It is worth noting that the trade unions represented included in this case, though they were not all heard together, the four chief general labourers' unions, whose members were therefore no longer reduced to following in the wake of the awards to skilled workers. "The award," stated Mr. Brownlie, "will in all probability affect one million persons." In applying for these considerable advances, he was, he stated, only acting "in accordance with the opinions expressed by the members of his society, several hundred branches having during the past six months forwarded resolutions to that effect." The rise in cost of living had been between 89 and 93 per cent. Even if the advance were conceded the workers would still be "sharing with the country the losses of the war."

The Committee on Production awarded from 1 April "as a war advance, intended to assist in meeting the increased cost of living, to be recognised as due to, and dependent on the existence of the abnormal conditions now prevailing in consequence of the war," 5s. to men, 2s. 6d. to boys under 18, to be paid weekly both to time workers, piece and premium bonus workers, such advance to be taken into account in fixing payments for overtime, etc., but not to be taken into account as part of the time rates for fixing new piecework prices or premium bonus rates. When in federated districts less than 7s. advance had been given since the outbreak of war, this was to be made up to a total of 12s.

Members of the following societies received 5s. or 2s. 6d. a week under this award of the Committee on Production (i.e., the award covered the members of these societies working in the shops and foundries of the Engineering Employers' Federation): the Amalgamated Society of Engineers; the Steam Engine Makers' Society; the United Machine Workers' Association; the United Kingdom Society of Amalgamated Smiths and Strikers; the United Journeymen Brassfounders', Turners', Fitters', etc., Association; the National Brassworkers and Metal Mechanics; the Electrical Trades' Union; the Associated Blacksmiths' and Ironworkers' Society; the Society of Amalgamated Toolmakers; the United Patternmakers' Association; the Scientific Instrument Makers Society; the Friendly Society of Ironfounders; the Amalgamated Society of Coremakers; the Iron, Steel and Metal Dressers' Trade Society; the Amalgamated Machine, Engine and Iron Grinders' and Glaziers' Society; the National Amalgamated Union of Enginemen, Firemen, Mechanics, Motormen and Electrical Workers; the Dock, Wharf, Riverside and General Workers' Union; the National Amalgamated Union of Labour; the National Union of General Workers; and the Workers' Union. It
was extended, after separate hearings in the course of the next two months, to include members of the Sheet Iron Workers' and Light Platers' Society, the Northern United Enginemen's Association; the British Steel Smelters' Association; the Amalgamated Moulders' Union; the Amalgamated Society of Carpenters and Joiners, and a number of other unions. By October, 1917, 48 unions had given their adhesion to the national agreement with the Engineering Employers' Federation.

A third cycle of advances was thus inaugurated. The "national" award for the engineering and foundry trades attracted much attention among the munition firms which were technically outside its scope, and this was intensified by the extension of its application throughout the engineering trades by the action of the Department—even before the acquisition of the compulsory powers for this purpose under the Munitions of War Act of August, 1917. It was adopted—sometimes voluntarily, sometimes after arbitration—by a number of non-engineering firms, both in the metal trades (such as the Scotch light castings and the stove grate and light metal trades, which obtained awards in April) and in the chemical trades, which had hitherto showed little unity of action.

The Boilermakers and Shipwrights made an independent agreement in March with the Engineering Employers' Federation, on identical terms with that of the engineers, while the same advance was awarded on 1 March to these societies and to the other signatories to the shipbuilding trades' standing agreement, with regard to their members employed by the Shipbuilding Employers' Federation.

Subsequent combined applications for increased wages in the engineering and shipbuilding industries were duly heard by the Committee on Production at four-monthly periods. On 19 June, 1917, a three hours' session of the usual Committee was held, when some 120 trade union representatives, with 12 members of the Engineering Employers' Federation, appeared to argue the merits of a fresh advance of wages in accordance with the recent increase in prices.

No less than 50 trade unions were represented or were invited to attend, and the occasion was noteworthy for the fact that it was the first, when the whole industry in all its grades was represented at the same time. The Amalgamated Society of Engineers sent 20 members to represent it, but the smaller skilled unions also sent their delegates, while the 4 unions definitely representing the semi-skilled workmen and the labourer had over 30 representatives, and expressed their views with much distinctness. The arguments brought forward reproduced many that had been produced before, but some of them are worth summarising by way of recapitulation of the pros and cons of the adjustment of wages to prices on which so much of the relation of the Government to Labour depended during the war.

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1 Cf. Awards, 76, 80, 81, 93, 94 of 1917.
2 See below, pp. 116–117.
After the Chairman of the Committee on Production (Sir David Harrel) had explained that those present had been summoned by a letter from the Committee, intimating its readiness to hear combined claims of the unions signatory to the national agreement if they so desired, Mr. Brownlie claimed, on behalf of the Amalgamated Society of Engineers, 100 per cent. advance to journeymen and apprentices on the rates obtained in July, 1914. The cost of food had, according to the Board of Trade returns, risen by 102 per cent. since that date. The workmen's family which spent 25s. a week (out of a weekly wage of, say, 40s.) on absolute necessities before the war must, or should now pay 50s. This increased cost was clearly due to the war. Wages ought to be a first charge on industry, and the increase which was demanded was clearly justified.

Mr. J. Hill (Boilermakers' Society) then claimed on behalf of the majority of the skilled trades represented, 10s. advance for men, and 5s. for boys, and the equivalent for piece-workers. Up to the present, the time-workers had only received 12s. weekly advance, which represented 30 per cent. increase on a pre-war wage of 40s. The present claim, if granted, would only mean a 55 per cent. advance in all.

"It has been said to us," he urged, "again and again, that we should not claim to be in a position exactly equivalent to what we were in pre-war times, that we should take some share of the burden of the war, and we say so too. We say we should take a share, and we have been taking a very large share up to the present time."

The workmen were not alone responsible for the "vicious circle" of rising wages and prices.

"We adhere to the position which we took up at the beginning, namely, we protest against the unjustifiable advances in the cost of living, not brought about by claims for advances of wages but brought about by those who have control of the production and distribution of the necessaries of life, and by our own Government who have neglected their duty in not taking charge of these affairs. . . . We have applied to Parliament, and Parliament says it cannot 'redress the balance in the way we wish.' Parliament says it can only be done by an adjustment of wages. You are the authority to adjust wages, and your duty, according to the Government, is so to adjust wages and rates that we will not suffer as a result of the rigging of the market by those who control the market to-day. . . . We think what we have asked for is fair. . . . It does not cover the difference in the cost of living, but if we get this advance for all the trades represented here to-day, we will manage to get along and maintain efficiency."

After Mr. Dawtry, on behalf of the Steam Engine Makers' Society, had explained afresh the grievance of the skilled time-worker as compared with the semi-skilled piece-worker, the delegates from the labourers' unions urged the necessity of an increase of weekly wages for the lowest paid workers, who were feeling the effect both of the increased cost of living and the diminished opportunities of overtime and Sunday
work. Mr. Bevin, of the General Workers' Federation, stated that 75 per cent. of his members were paid 35s. or under for a normal week's work, and this and not the irregular earnings (if any) from overtime work, should be the basis for an advance. It was essential that the whole 10s. claimed should be awarded, instead of the fraction of the claim usually given in arbitration awards. He had gone from town to town urging the men to accept the last award honourably, but with all sense of responsibility, he would no longer attempt to restrain their discontent unless justice were done to them. Mr. Will Thorne equally urged that the workers must be given the whole sum claimed, although he admitted that they would not even then be satisfied. The present demand was based largely on the increased cost of living, but it was by no means only on these grounds that the claim was based. "Surely we as wage earners as well as producers have a right to participate in the increase in the wealth of the country that is taking place and has been taking place now for a great length of time." Mr. J. W. Frost (Ironfounders), when urging the claim of his very arduous trade to a 15s. and 7s. 6d. advance, also went beyond the cost of living argument, and discussed the effect of the Munitions Acts on the free play of supply and demand. "It is quite clear that if labour had exercised the same freedom in selling its labour power—if the law of supply and demand had been allowed to operate during the period of the war in the same way as it has operated in the selling of the necessaries of life which the worker has to purchase—then we have no hesitation in saying that wages would undoubtedly have been very much higher than at present." If limitations were placed on the worker's liberty of bargaining, corresponding measures were necessary for his protection.

The employers' representatives replied briefly to the men's arguments, declining to enter into the question of the theoretic basis on which wages should depend. They felt, said successive members of the federation, the greatest possible sympathy with members of the trade unions with regard to the cost of food. They had already met the men's representatives on this point, and had sent a resolution to the Government asking that prices should be regulated. They had no sympathy with profiteers, either in the engineering or food trades.

The real increase, however, in the cost of living, was not more than 65 per cent. according to the Board of Trade estimate, allowing for the use of certain substitutes for people's normal dietary. This advance in prices had already been practically met by the increase of wages given to labourers, and nearly if not quite by that to skilled workmen. The men's often repeated contention that earnings by overtime work or extra exertions on piecework should not be considered in assessing advances of wages was valid in peace time, but it did not apply under present conditions, since the high cost of food and the increased opportunities of earning were both phenomena directly due to the war. The suggestion that engineering firms were earning high profits and could well afford to share these with the workmen in higher wages was based almost entirely on misunderstanding. A further advance in wages might mean the closing down of certain works. If, however, the Committee on Production held that further
advances in wages were due to their employees, they would, of course, readily submit to its award. They protested, however, against any increase in piece-rates (such as had been commonly given two years before), and urged that any advance should be given by way of a bonus in addition to earnings. Incidentally, they pointed out that since the cost of living had only risen some 10 per cent. since the previous general award, the men (assuming that strict attention was to be paid to Board of Trade statistics and that the previous awards of the Committee on Production were adequate) were only entitled to an advance of rather more that 1s. a week, instead of the 10s. and 15s. claimed.

The Committee on Production, after hearing these conflicting opinions, made an award of 3s. for men, 1s. 6d. for boys under 18, to be paid to piece and time workers equally, like the previous national award, from the beginning of August, 1917.

Since 45 unions were represented at this hearing, and the award (issued on 14 July) was made applicable to all their members when in the employment of the 1,400 firms included in the Engineering Employers' Federation, fewer supplementary awards were necessary after its issue than after that of the previous general award. The Committee issued on the same day identical findings with regard to the organised workmen employed by the Shipbuilding Employers' Federation (in this case again labourers' unions were included with the skilled men's unions which normally negotiated with the Federation) for the Scottish Ironfounders, for the National Light-Castings Ironfounders' Federation, for engineers and bricklayers in steel works in Scotland, etc., and a few days later an award, similar in effect though slightly different in terms, was awarded to members of the Workers' Union and three other general labourers' unions, employed by members of the Wages Committee of Chemical Manufacturers. This was the first hearing in this hitherto ill-organised industry on the basis of a "national agreement."

The 3s. and 1s. 6d. advance of August spread through the munition trades of the country in the summer and early autumn of 1917, accompanied by a parallel advance of 2s. 6d. and 1s. 3d. to women and girl munition workers, enforced by statutory order on the recommendation of the special arbitration tribunal for women's wages, and by orders for the "extension of awards" issued under the Munitions of War Act of August, 1917.

Agreements on the same lines as the agreement in the engineering and foundry industry were made in the course of 1917 and 1918 by the following organisations:—

The Mersey Ship Repairers' Association and the Employers' Association of the Port of Liverpool on the one hand, and the Federation of Engineering and Shipbuilding Trades (Mersey District Committee) and the Liverpool District Joint Committee of Engineering Societies

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on the other; the National Association of Master Heating and Domestic Engineers and the National Union of Operative Heating and Domestic Engineers; the Chemical Employers' Federation and the National Federation of General Workers, etc., and Joint Committee of Salt and Chemical Workers; the Soap and Candle Trades Employers' Federation and the National Federation of General Workers and Joint Committee of Salt and Chemical Workers; the Wages Committee of Explosives Manufacturers and the National Federation of General Workers; the Drug and Fine Chemical Manufacturers' Association and the National Warehouse and General Workers' Union and others; Scottish Building Trades (Employers) Wages Board and Building Trades of Scotland Standing Committee; Employers and Operatives' Associations and Federations connected with the Building Trades of England and Wales.

In the case of a number of other trades, for example: shipbuilding, Scottish iron and steel trades, dockers (Great Britain), carters (Great Britain), clay industry (Great Britain), railway shopmen, London County Council, the principle of a four-monthly revision of wages by the Committee on Production, without the other clauses of the agreement, was adopted. The trades covered by these agreements and arrangements were of such importance that they exercised a predominant influence on wage movements throughout the rest of the war.

VII. Low-rated Districts.

In October, the Committee on Production was already hearing fresh applications for periodic advances and it granted in November a series of increases of 5s. and 2s. 6d., under the same conditions as those granted in April and August, to take effect from the first full pay day in December, 1917. The engineering unions at their hearing on 23 October repeated their claims made in the previous July, with the additional demand of a 50s. minimum wage for labourers.

It also spent two days in hearing in detail applications brought forward under a provision of the engineers' national agreement of the previous February for "special consideration" in the case of some 48 districts in which it was claimed that the engineering wage was unduly low or the total amount of war advance was inadequate. Among the 48 districts included was a group of 13 towns in Lancashire and Cheshire, a group of 15 towns in Yorkshire, a group of 6 towns in East Anglia, together with some areas isolated industrially, such as Stroud, Chepstow, and Bath. In each of the first groups of cases it was claimed that wages should be raised uniformly to at least those of the highest rated towns in the district.

The Committee, after detailed consideration, resisted this attempt to standardise wages throughout districts, and only sanctioned advances of 1s. to 3s. a week to special grades of workpeople at Aberdeen, Carlisle, Keighley, Otley, St. Helens, giving as the reason for their refusal that "It is not sufficient to show that the rate in some other
district or districts was higher previous to the war or is higher at the present time, without regard to the conditions affecting the districts compared which gave rise to the differential rates." The terms of the national agreement only provided for special local adjustment of rates when these were "unduly low having regard to the conditions prevailing in the district in question."

On the other hand, the Committee refused a similar application from the Engineering Employers' Federation for special consideration on behalf of federated firms in Ireland, and ruled that the whole of the 5s. advance awarded in November, like the 3s. awarded in July, must apply to Irish firms.

VIII. Conclusion.

Similar awards were again issued in the case of the shipbuilding trades on 23 November, the chemical workers, and other branches of the metal trades. On the whole, however, the Committee on Production was set free, through the system of national awards, for the consideration of questions concerning individual firms, of which a very large number were referred to it during the autumn. The question of parallel advances to women and to men munition workers was brought before it, but was referred for special departmental decision, and the claim for equal increases was ultimately refused on the ostensible ground that women taking skilled men's work were, on the principle of equality of treatment, entitled to the skilled men's standard rates of pay but not to special war advances above these.

The advances sanctioned and awarded in November, 1917, were disturbed by the echoes of the agitation caused by the 12½ per cent. award to time-workers. In February, 1918, when the period came for a sixth cycle of claims for advances, the munition workers throughout the country were, almost to a man, receiving special advances of 12½ per cent. on time-work, 7½ per cent. on piece-work, calculated on their weekly earnings including the war bonus previously awarded. Further, owing to the system of price regulation adopted by the Government, the cost of living recorded by the Board of Trade index numbers was practically stationary. The Committee on Production accordingly refused all general claims for any fresh series of wage advances to take effect from 1 April, 1918. The rise in cost of living was, however, resumed, and in June and November the Committee awarded further advances of 3s. 6d. and 5s. respectively.

The above record of awards and arguments—awards affecting directly or indirectly two million munition workers and very large numbers of non-munition workers; arguments repeated indefinitely in verbal and printed discussions—gives some indication of the work

1 e.g., by the unskilled unions when they claimed an advance of 1/6 per day or shift for all adult workers in the chemical trades in October.

2 Vol. V, Part II.
of the Committee on Production in adjusting standard wages to cost of living in the munition trades. By the end of the year 1917, the rise in the cost of living was estimated at 103 per cent. over the level of July, 1914, while the rise in wages, apart from that acquired under the 12½ per cent.¹ and 7½ per cent. bonuses, for which the Committee on Production was not responsible, was 20s. a week in the engineering trades. Thus the labourer was very nearly recouped for the fall in the value of his pre-war wage of 20s. to 25s. a week—completely so if he received the 12½ per cent. bonus—while the skilled workman had suffered a definite loss in real wages (although his actual earnings were normally much in excess of those which he took home in time of peace). It was, perhaps, with a view to his position after the war, when opportunities for extra earnings might have disappeared while high prices were still maintained, that the engineer still claimed at the beginning of 1918 a substantial increase in his standard rates.

The awards of the Committee on Production for the engineering and metal trades were, as has been said, largely copied by other trades, equally pressed by the effects of increased cost of living, and by isolated firms which often reached a settlement with their employees without recourse to arbitration, although, if controlled, they must apply for the sanction of the Ministry of Munitions. Apart from its awards on cases turning on cost of living, the Committee also did much to regularise industrial relations by awards which served as general precedents for the conditions of the wage contract, such as the settlement of overtime rates in different industries (especially for labourers), and the rates of payment for work at night, on Sundays and during customary holidays. It adjudicated on schemes for time-keeping bonuses, for the conversion of war bonuses into war wages, and for the merging of differential war bonuses (distinguishing, e.g., between the allowances to married and unmarried workmen) into flat rates. The iron and steel trades, dependent primarily on sliding scale systems of payment, were under such a system of remuneration to a great extent outside its sphere. When, however, the sliding scale ceased to operate, owing to the fixing of steel and iron prices by the Government, the Committee issued various awards modifying the operation of the scales but maintaining their principle, or giving war bonuses to some extent similar to those of the engineering trades.² In the perplexing cases, on which so many fair wage claims turned, of “mixed trades”—the bricklayers in engineering works, the engineers in steel works, etc.—it maintained the principle that such workmen must receive the advances of the trade which it had been customary for workmen of their type to follow in their own firm or district, but that they must not vary between the systems of payment of two trades or claim the advances of both.

¹ The 12½ per cent. bonus added 7/- or 8/- a week to the earnings of the majority of skilled workmen of the engineering trades, in so far as they were paid on bare standard time rates apart from overtime. ² Cf. Awards of 20 June, 1916 (Bolckow, Vaughan & Co.), and 30 March, 1917 (S. Wales Iron & Steel Trades), altering maxima; and 1 May, 1917 (S. Wales-Siemens Steel Association), etc., awarding bonus. See also below, pp. 204–205.
By the end of 1917, the Committee on Production had, since its appointment, issued 1451 awards, by the end of 1918, 3,754. Although it had not propounded any very definite principles of action, it had defined the limits within which wage movements in the whole of the munition trades took effect. It had secured a more or less uniform series of changes in standard rates of wages, and it had inaugurated a very important movement for dealing with changes in such rates, nationally, and not only by craft or trade, but by industry. It had indeed only dealt partially with the difficulties surrounding the adjustment of piece-rates and of systems of payments by results, with which it had been brought into contact chiefly through disputes referred to it from individual firms. It had, however, either by award or by precedent, established the principles on which the "war wages" throughout the country were adjusted, and its work served to a very large extent as the framework within which the Ministry of Munitions dealt, under the limitations of the Munitions of War Acts, with the wages of workmen in the national factories and controlled establishments.
CHAPTER IV.

THE ORDINARY WAGES ADMINISTRATION OF THE DEPARTMENT.

I. Introductory.

The early administration of the Ministry was directed principally to the maintenance of recognised standard rates of payment, deviations from which were as far as possible to be prevented in the interests both of economy and of industrial peace. It was, therefore, carried on by means of a centralised staff, communicating with controlled establishments and national factories chiefly by letter and telephone, supplemented by interviews at headquarters with employers and workmen anxious to settle problems by word of mouth. From the first establishment of the Ministry labour officers and Labour Exchange officials obtained for the Department local information on definite questions concerning wages referred to them; at a later stage the investigation officers appointed in the autumn of 1916 performed the same office. Early in the spring of 1916, two engineers (the number was increased later) were attached to the Wages Section for the express purpose of visiting firms, collecting information, and giving expert advice on the many technical questions involved in the settlement of wages, while members of the administrative staff of the Section to an increasing extent visited districts in which special wages problems appeared. As a whole, however, the control of wages was definitely centralised. It was probably partly on this account that while rates of time wages (ascertainable by district standards) were dealt with on a consistent plan, on the lines laid down by the Committee on Production, the very difficult group of questions connected with payment by results (which had never been settled in detail in the engineering trades by standardised agreements between employers and workmen), received comparatively little departmental attention, except in the National Shell and Projectile Factories, until the year 1917.

(a) Effects of Dilution Policy on Wages.

Only in connection with the policy of dilution did the Ministry adopt a definitely constructive policy during the early months of its control of munition workers’ wages. This group of cases, with the difficult and important related question of the rates to be paid under dilution schemes to men and women who undertook munition work without replacing individual skilled workmen, as has been shown above, was forced on the Ministry as an integral part of its dilution policy, and led to the taking of compulsory powers of wage regulation in the Amendment Act of January, 1916. With these powers, and with
a relatively clear field of operations in the new national factories, the Ministry was able effectively to take the initiative in wages questions. The resulting policy affected women's wages much more directly than men's, and is described in connection with the history of women's wages.

(b) TYPES OF WAGES QUESTIONS BEFORE THE DEPARTMENT.

The following, therefore, were, apart from dilution questions, the chief classes of wage questions that came before the Department during the first summer and autumn of the imposition of control.

(a) Complaints from individuals, or from trade unions, that the district rate was not being paid for munitions work as required by the Fair Wages Clause;

(b) Applications from owners of controlled establishments for leave to pay higher rates to groups or classes of their workpeople, and to members of their staff;

(c) Demands from workers or their societies for a rise of wages on general grounds, which might end in a dispute and involve arbitration.

The three types of cases were obviously very closely connected. It was frequently difficult to say when a doubtful fair wage claim might not merge into a demand for arbitration, or reappear, after an amicable agreement, as a request from a controlled establishment for sanction to an advance of wages to its workpeople.

These remained the standing types of problems presented to the Departments in so far as men's wages were concerned. A great mass of problems connected with the settlement of piece rates, the spread of systems of payment by results, and the relations of piece and time-workers were later thrust upon it for solution, and additional statutory duties and powers were entrusted to it. But the general aim of its administration remained the same, the maintenance of recognised standard rates and relations in spite of the widening scope of the administrative activities involved in that aim. The rapid and continuous rise in the cost of living was all the time provoking wages demands, with which the Department had to deal; the danger that strikes, and serious discontent that did not issue in an actual stoppage, might hamper the production of munitions made the settlement of these demands urgent; the possibility of stimulating production by some change of methods of remuneration acquired an additional importance with the growing shortage of labour. The administrative task was the more difficult because the standard rates and conditions which the Department was engaged in supporting were outside its own control and were frequently disturbed by changes in the making of which it had no say. The Department was bound to accept the awards of external arbitrators under the Munitions of War Acts, and could with difficulty refuse to accept agreements made between representative organisations of employers and workpeople.
In the present chapter the administration of the Fair Wages Clause, the sanctioning of changes in wages under Section 4 (2) of the Munitions of War Act, the regulation of wages in connection with dilution so far as it is not dealt with in the account of women's wages, and the extension of awards under Section 5 of the Amendment Act of 1917, are described. The problems arising from payment by results and the grievance of the skilled time-worker are the subject of separate chapters, V and VI.

II. Administration of the Fair Wages Clause.

(a) Scope of the Department's Responsibility.

In the first departmental allocation of work in July, 1915, it was arranged that Mr. Wolfe's section of the Labour Department should administer the Fair Wages Clause, in so far as it applied to work done under contract or sub-contract on behalf of the Minister of Munitions; and that claims made to the supply departments of the Ministry in connection with this clause in their contracts should be transferred by them to the Labour Department.

The section also undertook certain responsibilities in the administration of the clause on behalf of the Admiralty and War Office.

As early as 28 September, 1915, the Admiralty suggested to the Ministry of Munitions that in future all questions affecting wages paid in controlled establishments, including those involved in the application of the Fair Wages Clause, should be dealt with by the Minister of Munitions, since the latter had, in any case, to sanction changes of rates of payment in controlled establishments.¹ For this purpose it was necessary to inquire into district rates of wages, and in practice it was very seldom possible to say at once, if at all, whether a given complaint was one of which the contracting Department could or could not take cognizance as a breach of the Fair Wages Clause. With this suggestion the Ministry of Munitions was at first unable to comply, on the grounds of "the very grave pressure of work at present (30 October), in the department," and the fact that the responsibility of enforcing the Fair Wages Clause must ultimately rest with the contracting Department. On 26 January, 1916, however, after further correspondence, the Ministry intimated to the Admiralty that it would be prepared to deal on behalf of the latter with all questions concerned with the Fair Wages Clause and changes of wages in controlled establishments, on the assumption that the Admiralty would make arrangements to prevent overlapping between their respective officials.

It was subsequently arranged that the Admiralty should be responsible for the observance of the Fair Wages Clause by firms on its "A" list and in all uncontrolled Admiralty firms, while the Ministry

¹ M.W. 37682.
of Munitions continued to deal with claims in all other controlled establishments engaged on Admiralty work.

Shortly afterwards, in February, 1916, the Department undertook to deal with Fair Wages claims made to the War Office, and with all other questions of wages in connection with work done by army contractors in controlled establishments. The Director of Army Contracts in return undertook that "steps would be taken to prevent any overlapping taking place, or any advice or sanction being given to employers, to make changes of or additions to wages, and which might conflict with action being taken by the Ministry of Munitions."

(b) Procedure.

In administering the Fair Wages Clause the procedure adopted, after consulting those Government Departments previously chiefly concerned with its observance, was as follows:—On receipt of a complaint from an individual or a trade union that a firm was paying below the local standard rates, the complainant was asked to supplement the scanty details usually given. If there then seemed to be a prima facie case, the employer was asked for his observations; if necessary, local enquiries were made, and finally a letter was sent to the employer pointing out his obligations under the Fair Wages Clause of his contract, or alternatively intimating to the complainant that he had no case under the Fair Wages Clause, but that, if dissatisfied, he could appeal for arbitration under Part I. of the Munitions of War Act. The ordinary sanction of the clause, the removal of an offender from the list of Government contractors, could hardly be employed in wartime; so that official remonstrance and the possibility of appeal to arbitration had to serve. The Department was "at all times ready to inquire into fair wage complaints," although such complaints were often based on misunderstanding, as when a workman complained on general grounds that his income was "unfair" by comparison with his deserts, or claimed as a right an advance in wages obtained by fellow workmen in another trade. In some cases, conferences on disputed questions of wages were arranged between employers and trade unionists, in this way anticipating the proposals for the better administration of the clause in all Government work, which were later urged on the Ministry of Labour by trade union representatives.

1 M.W., 37682/2.

2 A large number of complaints from individuals as well as from trade unions reached the Department during its early days, often addressed to the Minister in person. A number were received after the Minister's speech at the Trades Union Congress at Bristol. Thus, in September, 1915, a letter was received from a labourer at Johnstone complaining that only 23s. a week was paid for his class of work by his firm, whereas workers "no more loyal" at Paisley, a few miles away, got 27s. 6d. The employer was asked for his observations, and was able to convince the Department that the normal rate paid by the Local Engineering Employers' Association was 23s. for a week of 54 hours. Under the circumstances the complainant was informed on 9 October that the Minister could not intervene, as no breach of the Fair Wages Clause had taken place, but that the matter might be referred to the Board of Trade for arbitration. (C.E. 612/4.)
(c) Problems Raised.

Fair wage complaints reached the Department in a fairly even flow, and were dealt with at the rate of 2,000 to 3,000 a year. They involved many complicated problems, including some of the most difficult arising in the Wages Section. The handling of them required much exact knowledge of district rates and conditions and much sifting of evidence. Sometimes the Labour Exchange officials were able to supply the exact information required or the labour officers, or investigation officers, of the Department made special inquiries into the local circumstances. Sometimes, as has been said, employers and workmen were asked to attend, separately or together, at Whitehall Gardens, to substantiate their written statements. The Fair Wages Clause had presented many problems of interpretation before the war, especially in ill-organised trades and districts and classes of workers; and these were increased, like most other labour problems, by the new industrial conditions produced by the war.

The difficulties mainly fell into two classes, those connected with the interpretation of the phrase "district rate," and those arising from the employment of workpeople "outside their trade."

Employers undertook in their contracts to pay to their workpeople while on Government work either the trade union rate for their work or, if there was no recognised trade union rate, then that "in practice prevailing among good employers" in the district, or the nearest district in which the general industrial circumstances were similar. There was little difficulty in interpreting the rate to be paid to workers in the original "munitions" trades of engineering and shipbuilding, in which trade unionism was strong and standard time rates were adjusted by formal agreements between associations of employers and workmen's societies. The Workers' Union and the building trades unions, however, constantly approached the Ministry with requests for the enforcement of the clause among the semi-skilled and unskilled workers and the highly localised classes with whom they were concerned.

The difficulty of interpretation was particularly great in the case of women workers, especially of those who were doing munitions work but not as substitutes for men. In the case of these women "on women's work" there frequently was no local rate—or at least no adequate rate—"commonly recognised by employers and trade societies," according to which their remuneration could be fixed. The Fair Wages Clause was almost inoperative among women munition workers, and the Ministry realised by experience that, since it could not by means of the Fair Wages Clause secure, as had been at first hoped, adequate remuneration for these women, it must obtain powers to issue statutory orders regulating their wages.

1 L.R. 1563/5. cf. C.E. 1401/4, for an account of a six months' controversy with Messrs. Edgar Allen of Sheffield over a fair wage claim for the skilled man's rate by an iron moulder in this firm's employment.
2 M.W. 31572.
The same difficulty of interpretation, complicated by local custom, appeared among other ill-organised workers. Thus on 8 August, 1915, the Workers' Union wrote to the Ministry, complaining that a Halifax firm was underpaying the labourers in its engineering works. Skilled engineers on night shift worked 44 hours at day rates and were then paid at time and a quarter for the next two hours and time and a half for the rest of the time worked, whereas labourers (rated at 21s. plus 3s. bonus) never had more than time and a quarter rates for overtime work. Repeated letters from the firm supplemented by a report from the local labour officer, alleged that this difference in the position of the labourer and the skilled worker was generally accepted locally, and the Department accordingly explained to the trade union concerned that no action was possible under the Fair Wages Clause. Similar indeterminate customs about overtime allowances often recurred and were naturally important, owing to the great amount of overtime worked during the first two years of the war.

If, as in the case quoted above, no definite district rate existed, then the majority rate of employers in the neighbourhood had to be ascertained. Thus in November, 1916, the Edinburgh branch of the Associated Blacksmiths' and Ironworkers' Society complained that a Leith firm of engineers paid time and a quarter, instead of time and a half, for overtime work. The Department made an inquiry from 62 firms in Leith and the neighbourhood. 70 per cent. of the employers, representing 73 per cent. of the blacksmiths in the neighbourhood, paid at time and a half. The firm was therefore instructed, under the Fair Wages Clause, to pay at time and a half.

If there were no similar firms in the district, as in the case, for example, of some small country firm engaged on woodwork for Government purposes, neither district nor majority rate could readily be discovered. In such a case the only possibility was to take as a standard the rates for country work "recognised or prevailing in the nearest district in which the general industrial circumstances are similar." Fair wage claims often arose in rural districts or in small businesses owned by a self-made employer, and such common-sense applications of the principle of fair payment were not infrequent.

The other common type of problem, in which the difficulty consisted not so much in ascertaining as in selecting the district rate, was that of the workman employed outside his own trade, or in his own trade but under special conditions, such as the maintenance men, carpenters and others in engineering works or bricklayers in a foundry. These men would frequently claim, under the Fair Wages Clause, the rates and advances proper to their own trade under their own conditions. From its inauguration the department controlling wages was confronted with such problems. Thus in October, 1915, a certain engineering

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1 M.W. 31572
2 The firm reported in November to the Ministry that, owing to the importance of the union, they had raised the labourers' overtime rates according to their request.
3 M.W. 128963.
4 M.W. 161178; C.E. 1434/4.
firm in Greenock granted a bonus of 1d. to its workmen, including plumbers; subsequently a general advance of 1½d. was awarded to plumbers in the building trade by the Lord Provost. Should the engineering plumbers gain under both advances? Conversely, carpenters in the same town, also employed in engineering works, had been granted a bonus—Did this extend, under the Fair Wages Clause, to carpenters not engaged in maintenance work? When firms had been accustomed to paying building trade rates,—normally higher than those for the more regular shop work—to their maintenance men, the Wages Section did not interfere. On the other hand, supported by awards on similar claims by the Committee on Production, the section did not attempt to enforce such rates on unwilling employers under the Fair Wages Clause, even in areas where considerable numbers of engineering firms were paying these men on the higher scale. Difficulties such as these often, as in the first case quoted, clustered round the position of the ubiquitous plumber, a constant source of industrial strife before the war. But they re-appeared in many forms before the Wages Section of the Ministry and the arbitration courts, as a result of the special transference of men to work outside their own trade, brought about by the war.

An allied case in which the provisions of the Fair Wages Clause were claimed and the same difficulties of interpretation arose was that of new trades which developed during the war.

Thus in September, 1916, members of the Furnishing Trades' Association complained to the Department about the rates paid both to men and women for making ammunition boxes. These had naturally been made to a very small extent in time of peace. Since the war, joiners, cabinet-makers, packing-case makers had all been employed on their manufacture, often by small firms of builders, or by other wood-working employers whose trade was slack. The skilled workmen claimed the rates of pay proper to their own trades. The Department, on expert advice, ruled that such manufacture was in most cases only packing-case makers' work, and to be paid at such rates.

In such cases the Department acted upon the principle that the standard rate to be paid must depend on the job, not on the man performing it, i.e., that if a man took work in a less skilled trade than his own, he must descend to the lower rate of pay or of advances belonging to his present occupation. This was of some practical importance so long as the leaving certificate system obtained, and one of the grounds on which a munitions tribunal might, under Section 5 (5) of the Amendment Act of January, 1916, grant a leaving certificate refused by an employer, was a proof that the employer was paying the workman less than the standard rate of wages. While the case

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1 Wages Section Report, October, 1915.
2 Munition tribunals found, on occasion, the same difficulty as the administrative Department, in ascertaining the district rate payable. e.g., the cases on appeal of Mullins v. London Brighton & South Coast Railway, 22 September, 1916, and Sabin v. British Thomson Houston Company, February, 1917.
of the man working in a lower grade of employment than that of his own trade was not definitely provided for, yet it was generally held by the Department that a firm (while not bound to pay an employee above the rate due for the work on which he was engaged) should not withhold him under such circumstances from getting better-paid work in his own trade, unless it was prepared to pay him at the higher rate.

Constant attempts were made by aircraft woodworkers to obtain for the members of the numerous woodworking trades of different grades drawn in to make aeroplanes a uniform rate under the Fair Wages Clause equal to that of the best paid trade from which workmen had been recruited for the new industry. This claim was for many months resisted by the Department and by the Committee on Production,¹ although it was finally granted in principle under the skilled aeroplane workers' wages Order of February, 1918.

The same mixture of occupations sometimes involved the Department in the determination of normal hours of work, the regulation of which according to local or trade standards is included in the terms of the Fair Wages Clause.

Thus the Department was consulted in the autumn of 1916 about the case of a firm of builders near Bradford who employed a number of joiners on their building work, while they also had joiners and cabinet-makers in an adjoining workshop making naval ammunition boxes, which were admittedly cabinet-maker's work. The joiners, after the custom of the building trade, worked only 7½ hours a day for the six weeks before Christmas, whereas the cabinet-makers worked 10 hours all the year round. The secretary of the Joiners' Society claimed that the cabinet-makers also should work only 7½ hours per day.

The Department ruled that as the work was cabinet-maker's by nature, the cabinet-makers should work their own trade hours. There was no objection to the firm employing some of their regular joiners on the cabinet-makers' job and paying them joiners' rates for joiners' hours if they liked to do so; but there was no claim for the men under the Fair Wages Clause.

Such questions of working hours did not often appear, though they occurred periodically in the wood-working trades, and on at least one occasion, came before the Committee on Production. Such importance as they had, was due to the calculation of overtime payments and the effects on such calculation of the adoption of a short or long working week. There was much friction among aircraft workers in 1917-18 over this question.²

(d) Effects of the Application of the Fair Wages Clause.

The most important direction in which the Fair Wages Clause operated among munition firms was in the gradual levelling up of wages throughout districts and trades by the extension of new rates resulting

¹ Cf. Award 340 of the Committee on Production on the claim of the joint Woodworking Trades Aircraft Committee of the Glasgow district on July, 1916.
² See below, Chapter V.
from arbitration awards, or from agreements between the various employers' federations and trade unions. A very definite series of advances towards uniformity in standard rates, though not in actual wages, was thus secured.

The awards of the Committee on Production established new district rates, in so far as they applied to the differences between associations of employers and men, as distinguished from individual firms and groups of workers, and they could therefore be extended under the Fair Wages Clause. Other general advances however, such as the 12½ per cent. bonus, and the rates fixed under the different women's wages orders, could not be so extended, since they were made under special conditions and were not held to establish new district rates.

In August, 1915, a number of trade unions claimed that awards of the Committee on Production made with regard to wages paid by members of an employers' federation were binding on non-federated firms in the same trade.¹ The Chief Industrial Commissioner's Department ruled that non-federated firms were not so bound. Any action therefore taken to extend such awards, which at this period almost always involved advances in wage rates, had to take the form of recourse by the workers to the Fair Wages Clause. The Wages Section when appealed to was able to rule in the case of individual employers working on munitions contracts that the wages paid by them—the aggregate wages including war bonus but excluding time-keeping bonus—"should not be less than the aggregate rates paid by the majority of similar firms in the district." From the point of view of organised labour, the procedure meant but a slow advance. However, it offered a sure if cumbrous process of extending the operation of awards in so far as Government work was concerned, until the process was accelerated by the powers conferred on the Department for the compulsory extension of awards in 1917.

With the constant increase in the volume of Government as compared with commercial work, the Fair Wages Clause also in some cases raised wages for non-munition workers in munition works.² If the standard rate of wages were perforce guaranteed by a firm—even a non-union firm—when doing Government work, obviously those of the same firm's employees who were engaged on commercial work might, untrammelled by leaving certificate restrictions, demand the extension of this rate to themselves. This attempted use of the Fair Wages Clause as a lever to raise wages apart from work done on Government orders had been common among workpeople for a number of years before the war. The war-time scarcity of labour increased the effectiveness of the lever. It was, of course, used for this purpose exclusively by the workers, not by any official department.

It was constantly urged by trade unions before the war (and the claim served as a standing motion at meetings of the Trade Union

¹ Wages Section Report, 27 August, 1915.
² M.W. 40193.
Congress), that the Fair Wages Clause should be so extended in operation as to enforce general acceptance of trade union standards; Government Departments should not even permit tenders for their contracts to be made by firms unless the latter paid standard rates at all times to their workpeople, whether they were employed on Government or on private work. Two deputations to the Ministry of Labour in July and October, 1917, repeated this demand, urging first, that the burden of securing that a firm was giving fair pay should rest on those who gave out contracts rather than on the trade unions, which could only, under existing conditions, send in detached complaints to successive Departments; secondly, that Government contractors ought to pay (as stated above) standard rates to all their workpeople, however employed; and thirdly, that a list of fair contractors and subcontractors tendering for, as well as obtaining, Government contracts should be published or should be supplied to the unions concerned.  

This important proposal was considered in detail at the end of 1917 by the interdepartmental Fair Wages Advisory Committee just reconstituted under the chairmanship of Sir George Askwith, but not adopted.  

It was felt that the Ministry of Munitions, whose enforcement of the Fair Wages Clause had been conducted with singularly little friction was not very closely concerned with these questions, though the Department was represented on the committee. The movement is interesting, as one phase of the attempt to universalise trade union standards of conditions of work and wages.

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1 L.R. 1563/2 to /5., and quarterly reports of the Parliamentary Committee of the Trade Union Congress, 1917.  
2 L.R. 2723. and L.R. 4669.  
3 L.R. 1563/5.  
4 Decisions of the munition tribunals in 1916 and 1917 helped to extend the operation of the Fair Wages Clause in the direction desired by trade unions. Thus, on several occasions, in the Court of Appeal, Judge Atkins ruled that for the purpose of the leaving certificate regulations, the Fair Wages Clause operated, whether the firm was or was not engaged on Government contracts. Thus, if a firm was admittedly paying below the standard rates of the district or those commonly paid by good employers, this was a sufficient justification for the granting of a leaving certificate to one of the firm's workers (cf. Sabin v. British Thomson Houston Company, 22 February, 1917). A clause making this ruling general was included in the Dilution (Munitions of War Amendment) Bill of 1917, but did not become law because leaving certificates themselves were abolished.

Similar cases were those of F. Newport v. The Great Western Railway Company, and E. Bowell v. The Midland Railway Company (Locomotive Department), heard before the Bristol local munitions tribunal. In the latter case, on 16 February, 1917, the Tribunal issued a leaving certificate to the applicant on the ground that his employers, who were not engaged on Government work, were yet not complying with the Fair Wages Clause, since they were paying him less than the standard district rate for engineers. "I am of opinion," stated the chairman in his reserved judgment, "that the proper meaning to be given to Section 5 (5) of the Munitions of War Act, 1916, is that if a workman to whom that section applies desires to leave his employment, and a leaving certificate is refused by the employer, he is entitled to claim that this refusal is unreasonable if he has, in fact, been employed on terms as to rates of wages and hours of labour less favourable than those required by the Fair Wages Clause, and that it is immaterial whether the employer is or is not under contract with the Government to comply with the Fair Wages Clause." (A.S.E. Journal, April, 1917, p. 14).
III. Changes of Wages in Controlled Establishments.

(a) Procedure.

Section 4 (2) of the Munitions of War Act made the sanction of the Ministry of Munitions necessary for any change of wages or salary of any class of worker or person engaged in a Controlled Establishment, unless the change was necessary to give effect to the Fair Wages Clause.

The principle on which the Department acted in considering applications for advances in wages was that both employers and employed must ostensibly desire them. The Wages Section had from its inception a stereotyped form for explaining to employers and workpeople that any request for an advance must be "an agreed application, otherwise there was no action for the department to take." Under no circumstances would the Department be led, under Section 4 (2), to arbitrate upon disputes, for this was the function under the first Munitions Act of the Board of Trade and later of the Ministry of Labour. It was not uncommon for a firm to refer to the Ministry a demand from some group of its workpeople for an advance of wages, without any expression of opinion beyond the desire that the Department would "deal with the case on its merits." In such a case an application was referred back for further discussion, often with an indication of the line of action taken up by some other firm similarly placed, which might form a precedent for an agreement between the parties concerned.

This necessity for previous agreement limited the number of applications which reached the Ministry. The numbers were also diminished as owners of Controlled Establishments realised that advances of wages might still be made, without reference to the Ministry, when they concerned the cases of individual workpeople marked out for promotion, and of managers, directors or foremen whose proposed salary did not exceed £250 a year; or when they dealt with conditions to which the Fair Wages Clause admittedly applied, for example, after an arbitration award establishing a new district rate in the trade and locality, or an agreement for an increase of wages between a trade union and the employers' federation to which the controlled firm belonged. In spite of these limitations a very large number of "agreed" applications for changes in rates of wages to classes of workpeople were received by the department from its first establishment, and were dealt with at the rate of from thirty to sixty a week. The numbers of persons involved ranged from five or six to five or six thousand individuals.

(b) Refusals of Advances.

It was difficult to refuse these applications, especially if they represented the result of negotiations between a firm and a body of organised workers, since if the Department withheld its consent the possibility

1 C.E. 140/4.  2 C.E. 541/4
of arbitration (after the lapse of fourteen days from the date of application) was still open, and the resulting award might over-ride the Department's decision.\(^1\) Definite refusals of sanction to proposed changes in wages in controlled establishments were at all times limited in number. They may be grouped as follows:—

\((a)\) The first class consists of cases in which a proposed change conflicted with the Department's administrative policy. Thus in April, 1916, a proposal of the Fairfield Shipbuilding Company to pay for and compute overtime by the day instead of by the week was refused after consultation with the Admiralty, who "regarded the proposal as a retrograde measure" (on account of its probable effect on the workmen's timekeeping) and "supported strongly the opinion of the Minister that he should withhold his consent from the introduction of the new rule."\(^2\)

\((b)\) Cases in which men working outside their trade asked for the advances applicable both to their own trade and that with which they were working; such cases were liable to occur, for example, among engineers working in collieries or building workmen employed in munition factories. In such circumstances, as in the parallel claims under the Fair Wages Clause, the Department adopted the position that only the advance appropriate to one trade could be sanctioned and that the special advance to be followed must be decided by the previous custom of the firm. A bricklayer employed on maintenance work in a shell factory might receive the wage advances due to either the engineering or building trade, but was not entitled to both.

\((c)\) Cases in which an application, if granted, would give the workmen of some one firm wages markedly in advance of the district rate. Thus in the summer of 1916, before the second period of general wage advances began, the Department refused claims for advances of 4s. to 6s. a week to toolroom men and fitters, already paid slightly in excess of the district rate, in several districts; and it subsequently refused similar proposals to raise other time rates without reference to neighbouring employers.\(^3\) For the same reason in February, 1917, the Siddeley-Deasy Company, Coventry, was refused permission to raise the earnings of its tinsmiths from 1s. 4d. to 1s. 6d. per hour, "on the apparent undertaking to work harder in the proportion of 1s. 6d. to 1s. 4d." The proposal was not backed by any reference to the rates paid to tinsmiths by other Coventry employers nor by the consent of the local employers' federation, while earnings among others of the firm's employees were known to be large. "These considerations," it was explained to the firm, "are peculiarly important at the present time when rates are relatively very high in Coventry and the workpeople are apt to be disturbed by exaggerated rumours of the wages paid in local establishments."\(^4\)

Similarly, in the following May, a proposed advance of 1d. per hour to all the employees of Messrs. Barr & Stroud, Glasgow, was refused. The labour officer reported that the firm had already given advances

above those given by other firms in the local association, and "any further advance would lead to demands on associated firms." 1

(d) Applications for "fancy" bonuses—such as those sometimes offered in the first year of the war distinguishing between the workers on the basis of number of dependents—for unworkable forms of premium bonus, or for inequitable piece-rates. Such proposed advances were at intervals refused, or their modification was suggested.

Refusals of advances were comparatively frequent in the case of proposals to raise the salaries of directors and managers; but these were, as has been said, negligible in number as compared with proposals in respect of workpeople's advances.

While point-blank refusals were rare, it was not uncommon for the Department to suggest modifications in proposed changes, by pointing out that, for example, an increase of 1d. an hour, bringing the wages of a firm up to the standard level of the district, would be accepted, while proposals for a higher advance would be refused. The effect of such suggestions, however, was not always in one direction. They often helped an increase, more especially for the lower-paid men, and were always in the direction of removing local inequalities of payment.

During the period of the suspension of advances in the spring of 1916, the Ministry, like the Committee on Production, refused various applications for advances in individual form, and shared the criticism levelled on the Committee by trade unionists.

"Where in Birmingham and Coventry employers have displayed a willingness to increase the bonus now being given, the Ministry of Munitions have stepped in with a veto. Employers report prospective changes in wages—if they have a slight upward tendency—with the keenest regard for the Minister's instructions and with perfect confidence that if anything can be put in the way it will be done. They fail to report much more important changes in which we are vitally concerned, and on which they have equally precise instructions, and apparently they are quite immune from the attention of the Ministry. If certain other sections of this department were half so vigilant and insistent upon the observance of the terms of the Munitions Act (Schedule II) and the circulars for which they are responsible, there would be less friction." 2

(c) Registering Wage Movements.

The necessity for applying for sanction to increases kept the Department informed of the general and highly complicated process of wage movements in the munition trades throughout the country. Roughly these corresponded with the cycles of advances inaugurated by awards of the Committee on Production, which have already been treated at

1 C.E. 177/4.
2 Birmingham District Delegate in A.S.E. Journal, April, 1916.
length. The first cycle of general advances in the engineering trades had begun definitely in February, 1915, and, as has been said, the principal districts had received their 4s. or 10 per cent. advance by the time that the Wages Section of the Ministry was established. There were, however, many applications for similar advances by skilled employees of individual firms and by labourers—and especially for sanctions to agreements regarding overtime rates for labourers—in the autumn of 1915 and the early months of 1916, while in some cases subsidiary awards of 1s. a week were granted to district associations where members had previously received only 3s., and advances hitherto given as war bonuses were transformed into war wages, with corresponding changes in payments for night work and overtime. The effects of such awards spread sometimes slowly, sometimes rapidly, like the circles made by a stone thrown into the water, and were visible in the applications for “agreed advances” in other trades than engineering which reached the Department. The weekly reports of the Wages Section’s work illustrate this process of “permeation.”

“The advance of 1s. and 2½ per cent. to the Manchester engineers” (awarded on 13 April, 1916, by the Committee on Production) “has spread all over Lancashire. There has been a general movement in the galvanising trade for the commutation of existing bonuses. The Steel Company of Middlesbrough has fallen into line, and the commuted bonus is now almost universal in the trade. The advance of 1d. per hour recently given to bricklayers’ labourers and general labourers in steel works in the West of Scotland has produced discontent among other classes of men in steel works and among the same class of men in foundries. The engineers in steel works in the West of Scotland have put forward a demand for an advance of 2d. an hour, and a demand for an advance of 1d. per hour comes from the foundry labourers in Glasgow.” (27 May, 1916.)

“The advance of 1s. given by the Committee on Production to labourers in Glasgow has spread to Aberdeen.” (20 May, 1916.)

“The advance of 12½ per cent. in the Tinplate Trades is spreading through the Steel Trades in South Wales and is beginning to affect the engineering trades. One or two applications with regard to this have been referred to the Board of Trade.” (July, 1916.)

In the first half of 1916, the Committee on Production, acting on the instructions of the Government, refused, in the interests of economy, the greater proportion of the applications for large scale advances in wages which it received. While, however, there was a pause in the advances of wages awarded by the Committee on Production or sanctioned by the Ministry for whole districts in the skilled trades, there was a rise in the wages of all workpeople in individual firms in many parts of England, and changes were made in methods of payment, such as the granting of special overtime allowances in districts and occupations where this had not been customary (as in some of the
Birmingham trades\textsuperscript{1}), and advances in wages to apprentices.\textsuperscript{2} These last advances became common, as wages for women and girls rose under the influence of the women's wages orders, and as apprentices were either promoted to responsible work, or put on to repetition work with little prospect of learning.

Mr. J. C. Smith thus described the attitude of the Wages Section towards the "embargo" in a minute to Mr. Beveridge on 15 June, 1916, during this solitary period when the Committee on Production tried to stem the tide of rising wages.

"We were, of course, aware of the instructions given by the Cabinet to the Committee on Production and were bound to act in the spirit of these instructions; we were bound, that is, to scrutinise very carefully any proposal for a general advance, and not to assent to any such proposal without consulting the Chief Industrial Commissioner's Department. But as a matter of fact, we received comparatively few proposals for general advances, and I can recall no case of an agreement between an employers' federation and a union or unions covering a wide area that has been refused, though I remember two that have been somewhat modified in the course of discussion with this Department. The great majority of the proposals that come before us are from individual establishments dealing with particular classes of workers. Even in these cases, refusals have been rare when the proposals were made in the proper form. Our consistent endeavour is to preserve the wages balance in each district, to level up inequalities where they exist, but to prevent fresh inequalities from emerging by unjustifiable innovations on the standard district rates."

A second cycle of advances awarded by the Committee on Production began in July, 1916. They consisted of a 3s. advance to time-workers, primarily in the engineering trades, awarded on the application both of individual firms and their workmen and of employers' federations and groups of trade unions. These awards again spread in varying forms to firms and industries not covered by them, and the Department was much occupied in sanctioning them and interpreting their application to different trades and to different classes of workers,—especially at this time to unskilled workers.

The process of permutation again appeared clearly. "Proposals for a war bonus of 3s. a week" (reported the Wages Section in November, 1916) "are beginning to come in from the rubber trade in Lancashire. Proposals for advances in this district are generally measured by the standard of recent awards of the Committee on Production. Advances yielding an increase of more than 7s. weekly upon pre-war rates

\textsuperscript{1} Cf. M.W. 95545 "Agreement of 3 March, 1916, on overtime, night-shift, and piece-rates, sanctioned as between the Metal Section of the Midland Employers' Federation," the Amalgamated Society of Metal Ware and Tube Drawers, the National Union of Gas Workers, and the Workers' Union.

\textsuperscript{2} Cf. Award of Committee on Production for Manchester engineering apprentices.
are either refused or referred for arbitration. Piece-workers are generally excluded and in some cases a limit has been imposed to exclude the better paid classes of labour from the advance."

With the establishment in 1917 of the principle of national wage advances in the engineering and allied trades, in so far as they were employed by members of the Engineering Employers' Federation, the need for sanctions to piecemeal advances was to some extent diminished. The employees of federated firms received general advances, for piece- and time-work equally, of 5s. in April, 3s. in August, 5s. in December, 1917. Non-federated firms in these trades were warned by the Department before each of the two advances were due that they were expected to comply with these awards, and in many cases they fell voluntarily into line with them. Almost all the sanctions, except of individual proposals for the introduction of new forms of collective, time-keeping, or premium bonus (when the Department would offer advice from the experience of other munition firms), were after the first three months of 1917 on the general lines of these awards. The extension of the national awards of the Committee on Production by statutory order after the Amendment Act of August, 1917, to non-federated firms under contract with the Ministry of Munitions, further lightened (until the award of the 12½ per cent. bonus in November, 1917) the administration of the "sanctioning" clause of the original Act.

(d) Protection of Piece-Rates under Section 4 (2).

It was not at first clearly realised that the "changes" which required sanction by the Ministry included proposed reductions as well as advances in wages. As early in the history of the Ministry as August, 1915, trouble was reported by labour officers in the London area and elsewhere, through the action of some controlled establishments in cutting down piece-rates. Could not some statement, it was suggested, be made through the press, explaining that any such change made without the Minister's consent was an offence under the Act, involving a fine of £50.

This difficulty was duly met by Mr. Lloyd George's reiterated statement at the Trade Union Congress in the next month that no cutting of piece-rates would be permitted, and by the issue in the Press of an official pronouncement to the same effect.¹

"The Minister of Munitions has been informed that workmen employed in controlled establishments have been deterred in some cases from complying with the requirements of the Munitions of War Act that all rules, customs, or practices tending to restrict production should be suspended in such establishments by fear that any considerable increase in output might lead to a reduction of the piece-rates paid to them.

"In view of this the Minister desires to call attention to the fact that under the above-named Act no change in the rates

¹ This appeared in the daily papers of 13 September, 1915.
of wages, salary, or other emoluments to any class of persons employed in a controlled establishment can be made without notice to the Minister, who may thereupon withhold his consent to the change proposed, subject to the power of either party to demand arbitration.

"The Minister is prepared to exercise his powers, if necessary, in order to prevent the reduction of piece-rates as a consequence of the increase of output due to suspension of restrictions."

This statement was also supplied in poster form to controlled establishments, in order that there might be no further misconceptions among their employees.¹

The unintended and disconcerting results of this pledge are dealt with elsewhere.² It was a turning-point in the history of wages, since it put a stop to the process of adjustment by which a stable relation is normally maintained between time and piece-rates and between the earnings of different classes of workers.

Comparatively few applications for sanction to proposals for reduction in piece-rates reached the Department, though a certain number were received and sanctioned in cases when the piece-rates for a new process had been admittedly fixed unreasonably high, or when an improvement in the means or method of manufacture had completely altered the conditions of work. The provision that all applications for sanction to such changes must be based on agreement between employers and employed, naturally limited the number of applications received.

Some examples of cases coming before the Department will illustrate the difficulty of the piece-rate problem and the limited powers of the Ministry in dealing with it.

In December, 1915, the firm of Wolseley Motors, Birmingham, asked leave to revise the piece prices on which they had worked for the last five months.³ "When the manufacture of shells was first introduced," explained the firm, "we were compelled to utilise to a very great extent the services of persons who were unskilled, whilst to the toolsetters and foremen the work was a departure from that which they had previously dealt with, and also the material was difficult to machine." Since that time there had been an improvement in (a) the capacity of the workers, (b) the supply of machine tools and

¹ Some firms had anticipated the action of the Ministry. Thus, Messrs. T. Firth & Sons, of Sheffield, had on 1 August put up a poster (on the principles of which, they declared, they had acted since the beginning of the war), assuring their workmen that "no attempt would be made to restrict the amount of any man's earnings by cutting, when once fixed, piece-work prices for existing conditions of manufacture." (C.E. 439/2.)

² It was reported that some firms were unwilling to put up the Ministry's posters, because they said nothing about the employers' corresponding safeguard, in the need for the Ministry's sanction to proposed advances, as well as decreases, in wages. These firms were, however, informed that the use of the posters was not compulsory. (M.W. 496/4.)

³ C.E. 1074/4.
other tools, (c) the quality of steel and of lubricants procurable, and the percentage of bonus earned over the day rate had increased from 52 per cent. in July to 138 per cent. in November. This, urged the firm, surely represented a change in methods of manufacture, justifying a change of price, even if the machines on which the work was done remained the same. Semi-skilled men on shell-making were earning £4 10s. a week, and skilled toolroom men were endeavouring to enter the shell factory in order to earn higher wages there. The men were reported a few weeks later to have agreed to a reduction of 20 per cent. in piece prices, and this was accordingly sanctioned by the Department on 18 January. Similar "agreed reductions" in piece payments for other processes in shell production at these works were sanctioned during the next two months.1

If the process of manufacture was definitely changed, then fresh piece prices might be introduced by the firm, and these, as was suggested in the case of Wolseley Motors, did not require the sanction of the Ministry, though it was suggested at the outset by the Department that such changing of rates or fixing of new rates should be reported to the Department as "changes in working conditions," to be recorded under Schedule II of the Munitions Act.2 Many firms took advantage of this provision to break free from high piece-rates rashly established.3 Thus Messrs. Beardmore and Messrs. Mavor & Coulson of Glasgow, insisted, in correspondence with the Ministry, and in a case brought by the National Federation of Women Workers before the special arbitration tribunal early in 1916, that the women whom they employed on shell turning (at average piece-work earnings of 30s.) were not exactly replacing men. If they were paid at the men's piece-rates they would, owing to their special proficiency and absence of restriction of output, earn as much as £11 per week. But processes had been changed since the men left this work, and the firm was therefore not disregarding the principles of dilution by paying lower piece-rates.

A striking example from the experience of the Rudge-Whitworth Company, Sparkhill, Birmingham, illustrates the necessity, from the firm's point of view, of seizing the precise moment of the change of process in order to alter piece-rates, unless—and this was not very probable—there was a prospect that the workmen would voluntarily accept a reduction, after testing the results of the new process.

In March, 1917, the firm consulted the Department about the possibility of reducing the wages paid to a group of their labourers (four of whom were of military age and two just above it). The piece-rates for their work had been fixed when output was much less, and the men were now earning from £5 5s. to £9 per week. Would a reduction in their piece-rates be sanctioned?

1 The negotiations with this firm suggested the departmental inquiry into the very varying scales of piece-rates for shell work in different parts of the country, which was carried out at the beginning of the year (1916).
2 M.W. 53104.
3 M.W. 53881.
An investigation officer of the Ministry reported on the situation as follows:—

"On 8 December, 1915, piece-work prices were arranged for trolleying 303 cartridge caps at 2s. 4d. per ton, plus 4d. per ton bonus. The process of handling cartridge caps was as follows: they were filled in boxes (weight when filled, 1 cwt. 3 qrs.), then placed on four-wheel trolleys and trolleyed to the cleaning shop or muffle. This process was carried out up to August, 1916. About 16 August, 1916, alterations were made in production, but there was practically no difference in the distance to be trolleyed. Owing to the increase in output barrels were adopted instead of boxes, and two-wheel trolleys instead of four. The weight of the barrels when filled is 14 cwt. I examined the wage books from the week ending 7 January to 3 March (nine weeks). The average wage of the trolleyers was £2 13s. 2d. a week for 54 hours. From 5 January to 3 March, 1917 (nine weeks), the average wage was £6 1s. 2d., with 10s. a week extra for those on night work. There is no difference whatever in the distance to be trolleyed. The method was changed in August, 1916, by adopting barrels in place of boxes and two-wheel trolleys. I cannot understand why rates were not reduced. The men arrange amongst themselves to have a holiday in turns to suit their convenience, and even then they can earn over £6 a week. This is one of many cases of high wages for unskilled work in the district, which is causing considerable unrest among skilled workers."

On this report the Department could only reply to the firm that it was impossible now to regard the existing rate as other than an established rate. At the same time it was suggested that the firm should confer with the men on whom their employers’ failure to question the rate in the previous August had conferred the present rate. Two months later the firm reported that it had conferred with the six labourers and with the Workers’ Union to which they belonged, and that the men had accepted a reduction of their rates which would allow them to earn not less than 67s. 6d. a week. On 1 June, 1917, this arrangement was duly sanctioned by the Department as an "agreed reduction."

An isolated instance of the consequence of applying to articles produced in large quantities a piece-work price that had been defined for a small production is the following:—The works of Messrs. Webley & Scott, Ltd., Birmingham, produced before the war not more than 1,000 Very pistols per year. For rolling the firm’s name and trade mark on the body, and the serial number on the body and barrel, the firm before the war paid a man, who did the work in his spare time, 72d. for each pistol. In May, 1918, when 1,800 pistols were being turned out per week, this special work was done by a boy who, by whole-time work, earned steadily over £6 per week, including war bonus, for a week of 53–54 hours. The work was said to involve no skill or strength.1

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1 Weekly Intelligence Report, 11 May, 1918.
A more striking example of similar results from the same cause reached the Department in December, 1917, in the form of a strong protest by a large aircraft firm against any extension to piece-workers of the 12½ per cent. weekly bonus on earnings recently given to time-workers. The firm’s description of the origin of the high earnings of piece-workers in their establishment would apply to many establishments throughout the country.¹

They enclosed extracts from their last week’s wages sheets, showing that some 60 of the fitters, turners and other skilled men in their aeroplane works were already earning over £10 a week. One fitter had earned £22 5s. 8d. during the week; a turner had been paid £20 15s. 3d.; a horizontal miller £18 2s.; and a grinder £17 6s. 8d.

"In ordinary times," explained the firm, "it was our practice to review our (piece) prices every six months, but since the war began we have been precluded from doing this by the fact that we are not at liberty to reduce prices unless by mutual arrangement with the workers, which, up till the present time, we have never been able to obtain. The reason that our workers have the high wages that are now paid them is that in the early days of the war the prices were fixed on the basis of a small weekly production, and nearly all the men had four or five different jobs in the course of a week’s work. Now that we have a large output, all the men are specialising on one particular operation, and we have not been able to alter the prices. It practically amounts to our now paying jobbing prices for factory work, which you will no doubt realise is absurd.

"The payment of abnormally high wages has a very serious effect on production. Some men who can make a large wage in a very short time do not work steadily the whole week, simply because they have sufficient money, not only to live upon, but to enjoy luxuries without unduly exerting themselves. If the prices were such that they had to work reasonably hard to earn—say £6 or £7 a week, we are quite sure our output in this factory would be very greatly increased. We cannot repeat too often, or emphasise too strongly, the serious effect on production of abnormally high wages."

On the other hand, it was only by some such guarantee of piece-rates that workpeople could be reconciled to an extension of systems of payment by results. Errors like those just quoted could not have occurred if the extension of payment by results had not been pressed without regard to the difficulties of measuring and pricing new work. When the employers, therefore, in 1917, pressed for a further extension of payment by results, there could be no question of withdrawing the guarantee of prices. On the contrary, the Ministry found it expedient to give specific statutory form to the principle of the guarantee in Section 8 of the Amendment Act of 1917.²

¹ C.E. 140/4.
² Chap. II, Sect. 3.
The Minister's pledge and the powers he possessed of carrying it out were among the best known provisions of the Ministry's policy. The trade unions were constantly on the look out for breaches of it, to which they called the attention of the Ministry if a more direct remedy was not forthcoming. The Ministry's powers were, however, negative; they enabled it to do nothing to remedy the inconveniences which resulted from maintaining piece-rates and premium bonus base times that had been fixed in a hurry. It took steps administratively to prevent such premature settlement in the National Shell and Projectile Factories, for which it was directly responsible, and it urged at times on controlled establishments the desirability of fixing rates and base times provisionally on new work. Beyond this it did not attempt any constructive policy for handling the problem until the end of the war.

(e) The Effect on Wage Advances of the Policy of "Sanction."

The provisions of Section 4 (2) of the Munitions of War Act safeguarded the maintenance of standard rates of (time) wages in controlled establishments, and checked to some extent any further dislocation of the rates of wages, already much disturbed in different firms by the middle of the year 1915.

Apart from the very limited extent to which the right of veto was used, the insistence by the Department on agreement between the parties concerned before permission was asked under the terms of Section 4 (2) to change existing rates of pay, prevented wholly irresponsible applications for advances. The administration of this Section of the Act therefore served as a steadying influence, in the interests of the taxpayer, on the rise of wages. It was, indeed, possible for firms to engage fresh labour at rates much above the district level without recourse to the Ministry, and the prevention of this was considered during the discussions of the Munitions of War Amendment Bill of 1918. Further, employers could evade the need for official sanction by giving occasional unauthorised bonuses for good time-keeping, etc., and by special payments such as those known to shipyard workers under the names of "time and a bit," "hallelujah rates," "work on the corner," etc. Such evasions, however, were probably neither serious nor numerous, so long as the power of workpeople to exploit the shortage of labour was limited by the leaving certificate; and the Department only felt called upon to seek penalties before a munitions tribunal for unauthorised changes in wages in 53 cases of

1 Despite the general acceptance of the inviolability of piece-rates and premium bonus time allowances, there were frequent complaints that these were altered unjustifiably. Thus, an important strike of engineers at Vickers, Barrow, in March, 1917, originated in the men's resentment against the alleged cutting of time allowances under the premium bonus system. Normally such disputes involved disagreement as to whether the rates in question were or were not "fixed" before the change was made—the firm contending that they were experimental only, while the men maintained that they had become established by agreement or lapse of time.

2 L.R. 5581/20.
which 50 were dismissed), involving fines of £28 in all. After the repeal of the leaving certificate provisions, such evasions of the standard rate became more frequent and more serious in their effects. The Department was hampered in its efforts to check them, partly by the difficulty of discovering them until it was too late to take action, and partly by the wholly inadequate penalties which the courts inflicted when prosecutions were instituted. It had, therefore, sometimes to connive at, and even to suggest, time-keeping bonuses or other additions to the standard rate as the only way of enabling firms to retain essential men.

The difficulties of the supply departments concerned with building labour, which only in exceptional cases came under the operation of Section 4 (2), and the chaos in the standard rates for building workmen produced by the absence of any powers of regulation, showed forcibly the advantages of central control, even on a limited scale, of standard rates of wages, under the special labour conditions produced by war. The action of the Department in standardising rates of payment and in diminishing local and trade differences was of definite value, and synchronised with similar influences at work within associations of employers and workmen. Further, the Department gradually assumed advisory functions and was able to offer assistance in the construction and remodelling of a growing and varying series of systems of payment by results. But, in other respects, its lack of control of piece-rates, together with the fact that the main lines of its policy inevitably conformed to those laid down by the arbitration courts which were outside its sphere, prevented the Department from exercising any general control over the upward movement of wages. The influence which the Ministry was able to exert under Section 4 (2) of the Munitions of War Act over the exceedingly complex and difficult problems of munition workers’ wages consisted in restraint rather than construction.

IV. Administration of Circular L.3 and the Dilution Policy for Men.

The administration of the Ministry’s dilution policy for men has been described in detail elsewhere and its relation to wages problems will only be considered briefly here. It was embodied in Circular L.3, issued as a recommendation to controlled establishments in October

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1 To 30 April, 1918. One such case, that of Morris v. Rudge-Whitworth Ltd., was referred to the Munitions Tribunal Appeals Court on 31 July, 1917. Judge Atkin in this case maintained the finding of the munitions tribunal, which had imposed a £20 fine on the firm for changing its workers’ piece-rates without sanction, and within fourteen days of application to the Ministry for such sanction. The Judge held that the absence of any expression of consent by the Minister for a period of fourteen days was equivalent to the definite “withholding of consent” provided for under Section 4 (2) of the Munitions of War Act of 1915. Within that period any unauthorised change of wages was a definite offence against the Act. At the end of fourteen days, such a change would still be an offence, unless the consent of an arbitration tribunal had been obtained.

2 Interview with Management Committee of Engineering Employers’ Federation, 4 October, 1918. (Hist. Rec./R/342/14.)

3 See below. Chap. VII, Sect. 3.
1915, and re-issued in February, 1916, as a statutory Order under Section 7 of the recent Munitions of War (Amendment) Act. It was sent to all controlled establishments, except those in the chemical, explosives, oil and seed crushing trades and a few firms in low-rated areas to which its terms were not applicable.

The history of Circular L.3 was uneventful compared with that of the twin Circular L.2, which prescribed the conditions under which women should take men's work in munitions. Both were set up as a fence, or rather a system of barbed wire entanglements, for the safeguarding of the skilled men's rates in exchange for the abandonment of practices and customs tending to restrict output and to limit the entry of untrained workers to the trade.

The tortuous history of L.2 may be traced in the account of women's wages.\(^1\) Circular L.3, like L.2, was drawn up by the Central Munitions Labour Supply Committee in the weeks immediately succeeding the Trade Union Congress of September, 1915, and the conferences held by the Ministry of Munitions with the engineering trade unions. It contained three parts.

(i) The first re-enunciated the general principle of the Shells and Fuses and Treasury Agreements of February and March, 1915, and of Schedule II of the original Munitions of War Act, by stating that skilled men's work might be done by semi-skilled or unskilled workmen during the war, but that the latter should receive the time, piece or premium bonus rates customarily received by the former; that piece rates should not be altered after they had been established unless the means or method of manufacture were changed; and that the same overtime and other extra allowances should be paid to such workers as to skilled men.

(ii) It then prescribed the time-rate at which such work should be done in the processes of manufacture, the organisation of which was most prominent at the time. In the production of shell, fuses and cartridge cases (where the work was not previously "customary") machine men should receive the standard turner's rate less 10s., but their wage should in no case be less than 28s. per week including existing war bonuses, for a normal working week, except that a wholly inexperienced workman might start at 26s. per week. This lower probationary rate, however, was not to be continued for more than two months.

(iii) Thirdly, it defined the position of the toolsetter, again within this limited area of employment. Those engaged on fuse-making machines should receive 10s., those on shell-making machines, 5s., above the current district time-rates for turners.

\(^1\) Vol. V, Part II, Chap. II and III.
The first part of these directions needs no further comment. It was at intervals quoted in complaints from unions of unskilled workmen, or unions with no very rigorous admission test, that their members were employed on skilled men's work, but were not receiving skilled men's pay.

Thus the Electrical Trades' Union from April to August, 1916, carried on negotiations with an important firm, concerning an ex-photographer and cinematograph operator employed on general electrical wiring at 30s. instead of 46s. the local district rate "in contravention of L.3." The firm said that the man was doing apprentice's or improver's work. Often before the war, they had, like other firms, taken on such men and given them a chance to improve their position. They had no intention of employing cheap labour. They fully intended, they explained to a representative of the Ministry sent to interview them, to pay the man full rates as soon as he had learnt his job,—and in August they reported that they were so doing.¹

The case provided for in the second part of the directions was an instance of the process of partial substitution taking place all over the country in engineering works before and during the war. It illustrates the craftsman's distrust of the handyman as a possible source of cheap labour, and also the trade unionist's recurrent suspicion of any but the briefest probationary period. This attitude reappeared throughout the struggle over the introduction of women to skilled men's work (in which some period of probation was clearly necessary before the skilled man's rate could be fairly earned), and in the negotiations which began in 1917 for training disabled soldiers for certain occupations.

The circular expressly provided against the too great extension of probation. The actual minimum wage originally laid down, was based on the standard rates for fitters and turners in October, 1915.² No industrially important districts in the country except Mid-Lancashire, had less than a 38s. time-rate for their trades (though a lower rate was common in the low-paid districts of the South-West Midlands, East Anglia, Oxfordshire, etc.). Even in Mid-Lancashire, however, the rate in machine shops was 39s., (as against 36s. and 37s. in textile machinery shops). A few districts paid over 43s., while the rate in London was 47s. 6d., in Sheffield 46s., in Coventry 43s. But with these exceptions the highly rated districts were not of great importance for the purpose of regulation, and Sheffield was in any case excluded from the operation of the proposed circular, as shell had been made there before the war.

Therefore the 28s. rate was fixed on as a fair minimum which bore a reasonable relation to the unskilled labourer's rate, and, on the assumption that piece-rates would be fixed in relation to this, allowed the machinist to equal, but not exceed, the earnings of the skilled man.³

¹ C.E. 275/4. ² M.W. 92329. ³ The piecework earnings of the male machine operator engaged on shell production were, in fact, normally greatly in excess of these rates.
Trade union officials were constantly on the watch against any possible undercutting of the standard rates by unskilled men who took skilled men's work, and against the acceptance of time-rates below the minimum laid down for machine workers. But in fact the men brought into the engineering trade in the process of dilution of labour most commonly took semi-skilled work, and there was much less friction about their replacement of skilled men, even in "part or portion" of the latter's work, than was the case with the women "dilutees."

In one minor point of administration the interpretation of the principle of equal payment for equal work whether performed by the "skilled" or "unskilled" worker, differed as regards men and women under dilution. In the case of women, the difficult question of deciding in marginal cases whether they were or were not employed upon work of a class customarily done by skilled men was in general determined by the custom of the country as a whole prior to the war. Where, however, it was claimed that an unskilled or semi-skilled man was employed on work which according to the custom of the establishment was previously done by a fully skilled man, the status of the substitute was, under paragraph 4 of the second schedule of the Munitions of War Act, regulated by the pre-war custom in the individual establishment concerned.

Thus in a case brought forward and contested by the Amalgamated Society of Engineers from March to October, 1917, and only terminated at the end of that month by one of the rare awards of the special arbitration tribunal for men's wages, it was urged that two unskilled workmen (an "ex-horizontal driller and an ex-labourer pensioner"), were employed at the Whitehead Torpedo Works on skilled work at less than the skilled man's rates. On investigation, it was found that the work on which the men were engaged, the internal circular shaping of torpedo air vessels, was work of a type on which the firm had normally employed skilled men before the war. "Shaping" was admittedly semi-skilled work, although it sometimes involved skilled handling; but the firm had before the war employed shapers paid at turner's rates on all types of shaping work without distinction, and it was therefore directed to pay these men at the full turner's rates. Such payment conflicted with the practice of the great majority of the engineering firms of the country, but it maintained the principle on which the dilution of labour was based.

Problems such as the above were not often propounded to the Department, but the extra payments due to the toolsetters (engaged

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1 Thus in February, 1917, the North West Coast General Munitions Tribunal considered a complaint against a controlled establishment for employing a semi-skilled turner at 29s. instead of 35s. a week. He had signed on when engaged to work for two months at the lower rate, but it was held that as he had had previous experience and was therefore above the probationary stage, he was entitled to the 35s. a week. In this case the firm undertook to raise him to the higher rate, with back pay from the time of his engagement, and the summons was withdrawn.

2 C.E. 1058/4.
on a limited class of munition work), caused some friction with firms, not so much on principle—since setters-up commonly received rates above those of the fitter and turner—as in practice.

Correspondence prolonged for fourteen months with Messrs. Firth, of Sheffield, and some half-dozen of their workmen illustrates the difficulty due to the limited application of the L.3. circular.

On 16 November, 1915, six toolsetters employed in this firm's new shell works, wrote to the Ministry, applying for the payment to them of the extra 5s. a week recommended in the new circular. The firm in January, 1916, pointed out they had made shell before the war, that they had customarily employed semi-skilled men in its production, and that therefore Circular L.3. did not presumably apply to them. They would gladly give these six men a rise in wages, if it were not that such a rise would only increase the existing discontent among their toolroom men as a whole. In March, 1916, the Ministry informed the men that they had no legal claim to the toolsetters' 5s., since L.3 did not apply to a firm in which shell had been made before the war. During the summer, however, the question was again raised, this time by the Sheffield District Committee of the Amalgamated Society of Engineers, which urged that as Messrs. Firth's shell works was a new building put up since the war, it formed a separate establishment to which L.3 must apply. The question was referred during the autumn to the special arbitration tribunal, which found (3 January, 1917), that the men's claims were not established. The conclusion of these negotiations is a testimony to the value of impartial investigation and arbitration. The men's correspondent wrote to inform the Department that the special arbitration tribunal had found against their claims, but that the men were quite satisfied with the results, since their fellow workmen could no longer upbraid them with working below the district rate. Further (and this probably affected their attitude towards the enforcement of the statutory Order), their manager had added 2s. a week to the 2s. above district rates which they already received, so that the loss of their claim only deprived them of Is. a week.

Toolsetters taking charge of machines, and responsible for their good working condition, would probably in any case have received an addition to the ordinary fitters' or turners' payment. Sometimes, however, the Ministry was required, under the terms of its own order, to insist on special toolsetters' rates when these would not under normal conditions have been held to be justified. In well-equipped shell factories, the process of toolsetting was sometimes reduced to an operation described as being "as simple as that of putting a fresh needle into a gramophone," and involved no responsibility for the condition of the machines such as a toolsetter would normally assume. In spite of this, 5s. above the skilled man's rates had to be paid for such work.

Thus a group of workmen at the Keighley National Shell Factory, who from February to July, 1916, persistently claimed the established toolsetters' rates, were said\(^1\) by the labour officer to be engaged merely

\(^1\) C.E. 717/4.
in fixing cutters to the toolholders for single boring operations. The machines were of one type, specially built for the production of these shells, and fitted with special toolholders. The men concerned simply fixed the tools in place, and the girls often did it themselves. The management stood out staunchly against this claim, despite the agitation of the Amalgamated Society of Engineers, but the 5s. extra had eventually to be paid to these men.

Except for these special provisions for toolsetters—not wholly satisfactory, except in so far as they modified the "skilled man's grievance" among the producers of shell, fuses and cartridge cases—the administration of Circular L.3 and its succeeding statutory orders was virtually a "fair wages" question. The principle, that the "custom of the establishment" should decide what was or was not skilled work, was on the whole consistent with the principle previously quoted, that it was the job performed in an establishment, and not the original trade of the man performing it, that must settle the standard rate to which he was entitled. The enforcement of the Ministry's dilution policy turned ultimately, like its wages policy as a whole, on the maintenance of standard district rates, however great might be the changes of working conditions within the firm or industry concerned.

The scope of the Order embodying L.3 was also restricted by the increasing proportion of women and girls employed on the machining of shells and fuses. For the last two years of the war the greater part of this work was done by them.

V. The Compulsory Extension of Awards.

(a) The Demand for Extension of Awards.

The process of adjusting local differences in wages by the methods described was laborious and comparatively slow. An advance in wages in controlled establishments was secured either by negotiations within a firm between the employer and workpeople—negotiations, the results of which normally received the sanction of the Department—or by direct award of the Committee on Production. If the decision of the latter concerned an individual firm, the parties concerned had no option but to comply, under heavy penalties. If again an arbitration award was made between a local association of employers and the trade unions representing their workers, its terms were binding on the whole association, while even a voluntary agreement was practically, if not legally, binding on its signatories and those whom they represented. This method of settlement, however, omitted all the non-federated munition firms, some of whom were geographically isolated, while others deliberately refrained from joining employers' associations. Often, indeed, they observed the same standard of wages as that of the federated firms and in some cases they paid regularly in advance of these; but no compulsion could be brought to bear on them except through the Fair Wages Clause. And the Fair Wages Clause, as has been explained, only operated in such cases if the agreement signed by the local employers' association in the industry concerned covered the
majority of local employers and thus established a new district rate. This was by no means always the case.

If then wages were to rise symmetrically, which was very desirable in the interests of industrial peace and of the maintenance of standard rates, this result was often only obtained after prolonged "heckling" of these outstanding firms by trade union officials.

Recalcitrant or dilatory employers could plead ignorance of Committee on Production awards (since they did not regularly read the Labour Gazette in which they were published); or the disturbance of their contracts by an unexpected change of wages; or they would urge that some special privilege enjoyed by their employees more than compensated for a refusal to pay an advance accepted by other firms. Eventually, however, under the special relation of labour and capital produced by war, the advance claimed as a result of an important arbitration award had normally to be conceded by other firms in the trade or locality.

As early as August, 1915, and during the first eighteen months of the Ministry's operations, it was periodically urged by trade unions that awards of the Committee on Production should be binding on the whole of the trades concerned. With the movement for national advances in wages which took effect in February, 1917, it was possible to apply the principle of extension effectively, and then it appeared as a natural corollary to these general awards.

The opportunity was therefore taken of the Amendment Bill of 1917 to take powers to extend awards by Order.¹

(b) Extension by Administrative Pressure.

Meanwhile the Department had taken steps to ensure, among controlled establishments, the observance of the forthcoming clause in the Act.² Even before the introduction of the Amendment Bill, copies of the first national award of 1 March in the engineering and foundry trades were sent out, on 28 March, to all non-federated controlled establishments with the intimation that the Minister proposed, in a Bill shortly to be introduced into Parliament, to take power to extend its operation to non-federated firms in the engineering and foundry trades. Pending the issue of a Statutory Order to that effect, this intimation was sent in order that the necessary arrangements might be made to give effect to the award as from the first full pay day in April.

A similar letter was despatched on 23 July, containing a copy of the second national award of the Committee on Production for the engineering and foundry trades (3s. advance in weekly wages from 1 August³).

The great majority of non-federated employers in controlled establishments complied readily with these and similar general awards.

¹ See above, Chap. II, Sect. 5 (a).
² M.W. 172423/3; L.R. 5171/3; Circulars M.M. 122 and 122a.
³ Circular M.M. 122b.
If they were recalcitrant, the Ministry could (if their works were in a district where the majority of firms in the same trade were federated) call upon them under the Fair Wages Clause to pay the advances to their workpeople. To more isolated firms, the Department had to admit that they were not legally bound by such awards, but intimated that the expected compulsory powers for their extension would probably be applied retrospectively.

Parallel with this action by the Ministry was that of the Chief Industrial Commissioner's Department, which Sir David Harrel, Chairman of the Committee on Production, explained on 19 June to the great deputation of labour representatives who were then claiming a second general advance in the engineering trades; representatives of the ironfounders and of certain of the unskilled trade unions had complained of the difficulty of inducing firms to observe the recent awards except under compulsion.

"What we have done since the issue of the last national award is this, that where non-federated firms did not pay the award and the men concerned reported the circumstances to the Ministry of Labour, the latter declared that to be a 'difference' and sent it along to us to be heard as a difference, and we did hear it, and we made awards. That is different from applying our general award to them, but it had to be done that way. On the other hand, I am bound to say that from the official information of which we are possessed, I think that the non-federated firms all over the country have responded very fully to the situation and have paid the award."

During the six months that elapsed between the issue of the first general award by the Committee on Production and the first extending order by the Ministry of Munitions, vigilant trade union officials were constantly on the watch to secure the general observance of all "national" awards. The tone of some of their comments in their reports to their members illustrates the desirability of action by some independent authority, to secure such observance.

"Almost all the various firms in the Division who refused in the first place to come within the terms of the March award are now brought into line, with the exception of a few whose cases are pending before the Ministry of Labour. Messrs. Lanston Monotype Corporation of Redhill had to be taken before the Committee on Production with the result we have secured the award. We are hoping now that the amending Act has passed that there will not be the same difficulty attendant upon securing future wages adjustments and although hopeful cannot help being somewhat sceptical of results but trust all recalcitrant firms will be early reported in order that they may be dealt with at the earliest opportunity."—(Delegate's report, Middlesex Division, A.S.E. Journal, September, 1917.)

1 L.R. 2475.
"The national advance has been observed more readily on this occasion than on the last. Trouble has been experienced in one soulless concern which has two works. They complied readily when they received the men’s ultimatum and even went to the trouble of posting notices throughout both works setting forth their good intentions."—(Delegate’s report, Liverpool Division, A.S.E. Journal, September, 1917.)

"The majority of the Cork employers have not yet conceded the 3s. increase and notices have been handed in to cease work. We have only had satisfactory replies from two of the Limerick employers on the same subject and pressure is being brought to bear on the remainder. All the Newry employers have conceded the 3s. increase but only a few of the Portadown employers have come into line. I am at present dealing with the defaulters in these areas.—(Delegate’s report, Belfast Division, A.S.E. Journal, September, 1917).

"If absolute control existed by the Government it would not be necessary for me to appeal to the Ministry of Munitions to apply the Wages Award of the Committee on Production six months after that award has been issued, yet I am engaged in that unenviable task to-day, and in a district where the salary of moulders was 5½d. per hour and that of labourers 3½d. per hour before the war; and this is a controlled establishment. Did I hear someone assert that industrial unrest existed? Perish the thought; with a princely income like that he would be an ungrateful curmudgeon who would do other than meekly wait and murmur not; and so I have undertaken the duty of revolutionary on behalf of these men."—(Ironfounders Monthly Journal, October, 1917).

(c) Extension under the Act of 1917.

In September, 1917, the Ministry, equipped with powers under the Amendment Act just passed, could at last take action for the generalisation of wage advances, and under Section 5 of the Act it issued, between 27 September and 30 December, 1917, sixteen orders extending compulsorily the application of arbitration awards.

Two orders applied to the engineering and foundry trades.¹ They were sent in September and November to some 1,200 firms, almost all controlled establishments, calling on them to put the "national" awards (for the 5s. and 3s. advance of the previous April and August) into operation, if they had not already done so. Thus, including the members of the Engineering Employers’ Federation, some 2,600 engineering firms came uniformly under the same group of awards.

The remaining orders covered a surprisingly small number of firms, some 80 in all. No. 7 was applied to 36 establishments in the Birmingham brassworking trade, No. 15 to 15 firms engaged in

¹ Circulars L. 103 and L. 104.
light casting; the remainder scheduled only 2 or 3 firms apiece. No. 4 was not issued at all, as all the establishments concerned complied voluntarily. No. 9 was applied on 30 September to a single dilatory brassworking firm which had not yet paid the 5s. advance of 1 March; No. 12 applied to one uncontrolled firm Sir W. Robinson's award of 14 May to the London building trade; No. 13 to a solitary shipbuilding firm the awards of 1 March and 14 July simultaneously.

The scantiness of the numbers of firms to which compulsion was actually applied under the Act of 1917 is explained partly by the fact that the principle of the general extension of arbitration awards was becoming known in the late summer of 1917. Further, the Department adopted the procedure of sending out to controlled establishments copies of "general" awards by the Committee on Production, asking firms to comply with these and to report when they had done so; and compulsory orders were only sent out to such firms as had not definitely stated that they had already complied.

Few formal complaints were received from those to whom the orders were sent. Such complaints as were received dealt, most comprehensibly, with the effect of the increased wages bill on costs of production. Thus a West Country shipping firm to which Order 16 was ultimately applied, but which for a year carried on an acrimonious correspondence with the Ministry and the Chief Industrial Commissioner, with regard to the application of awards, based its objection almost entirely on the effects upon its contracts. On 2 April, 1917, it replied bluntly to the Ministry's circular with regard to the observance of the recent national award: "Please note it is not our intention to pay this," and explained that it held contracts to the value of £30,000 which would take eight months to complete "and this advance will mean £50 per week (£1,600) to us," while the prices quoted to the Government were based on existing prices. Reassured by the Department from which it held its contracts, that the increased expense of these would be defrayed, it applied the 5s. award to its workpeople at the end of April.

Later in the year, however, it again delayed with regard to the 5s. general advance of November, 1917, and after protracted correspondence with the Ministry, explained its position thus—"Kindly note that until we get the money refunded which we have paid out to our employees since April last, now amounting to over £4,000, we shall refuse to make this award, the amount of which up to date will be £6,000 to £7,000. We are not in a financial position to pay unless we get the outstanding money refunded. We have made repeated appeals to the Departments for the amounts on the different jobs we have in hand, but cannot get any settlement. They proposed a short time ago to give us an advance, but we hear now this is not forthcoming."

The gradual simplification of the process—to which this complaint refers—by which refunds for advances in wages were obtainable under

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1 C.E. 767/4.
certain conditions from the Departments responsible for the issue of contracts, is described elsewhere.¹

When in July, '1917, intimations (M.M. 1226) were sent out to the engineering and foundry trade calling on non-federated firms to adopt the recent 3s. award, their attention was specially drawn to their position with reference to contracts. "If a contractor is of opinion that a claim arises for revision of prices payable in respect of direct contracts with Government Departments on the ground of increased labour costs due to the advance, such claim should be submitted to the Department from which the contract is held."

At the end of the year arrangements were made by the Ministry of Munitions, in conjunction with the Admiralty and the War Office, for the insertion in munition contracts of clauses providing for additions to contract prices "to meet additional labour costs arising from direct Government action." Under these circumstances, one valid objection of employers to the automatic adoption of awards was removed, and only two orders for compulsory extension were therefore issued in 1918.

The actual effects of the exercise of compulsory powers under Section 5 of the Act of 1917 were therefore very small, as measured by the number of firms scheduled under statutory orders. The desired extension of general awards was achieved far more by departmental circulars, urging a form of "voluntary" anticipation of compulsion familiar since the outbreak of war, than by exercise of the coercive powers given by the Act of 1917.

It is rather as introducing a new principle in the relation of the State to movements in wages, and so carrying still further the generalisation of trade union standards in industry, that the movement for the extension of awards is interesting. Its application laid down a precedent, which was followed in the Wages (Temporary Regulation) Act (1918), under which wages were regulated for twelve months after the Armistice, and the adoption of this principle in a permanent measure was urged by the Provisional Committee of the National Industrial Conference, convened by the Government in February, 1919. The experience of the principle in war-time was not, however, decisive. Employers on the whole were not reluctant to increase wages; they were able to recover the increase in their labour costs by a revision of their contract prices. These conditions were abnormal, and the intrinsic difficulties of giving effect to the principle under normal conditions, especially the demarcation of trades to which different awards were to apply, and the administrative enforcement of awards in marginal cases, were never fully tested.

¹ Chap. VII, Sect. 2 (b).
CHAPTER V.
PAYMENT BY RESULTS.

I. The Spread of Payment by Results, 1914–15.

(a) ATTITUDE OF LABOUR TOWARDS PIECE-RATES.

Of the incidental results of the demand for munitions, one of the most important was a wide extension of systems of payment by results. The industries affected by the demand were, before the war, mainly time-rate industries. But methods of remuneration are closely connected with and dependent on methods of production, and the war demand, leading as it did to important modifications in methods of production, was bound to have an effect on methods of remuneration. The possibility of payment by results depends on the possibility of isolating and measuring the contribution to production of individual workers or groups of workers. By enormously increasing the proportion of repetition work of a uniform character, the munitions demand made possible this isolation and measurement over a largely increased proportion of the field of industry. The effect was the greater, because some payment by results was already in operation in most of the trades affected, and the decade before the war had been a period of much experiment in this direction. Employers had precedent to go on, and alternative systems to choose from, when the change in their output made the introduction or extension of payment by results a practical policy.

It is a common error to suppose that organised labour as a whole is opposed to piece rates. An intellectualist minority is opposed to any system of payment by results, and certain trades have always opposed it. But more unions, with more members, accept or insist on payment by results than resist it. The demand for munitions, however, affected particularly the trades that resist it. Thus the building industry (with which most, if not all, of the wood-working trades contributing to aircraft manufacture were connected), was essentially a time-working industry. The attitude of the chief building crafts to any system of payment by results is described later. They carried the same attitude of opposition into their ship-building work; while the other wood-working trades shared their traditional opposition to piece-work. In the engineering and shipbuilding industries the current methods of payment varied. Of the workers in the shipyards probably at least 60 per cent were piece-workers in 1917. The boiler-makers had for a number of years normally worked on piece-work, almost as sub-contractors, dividing the earnings of the squad between riveters,

1 See above, p. 5.
2 cf. Mr. Wilkie, before Committee on Production.
helpers and rivet-boys,\(^1\) and the iron trades were to a considerable extent piece-working trades. "In most of the shipbuilding districts there are recognised piece-work price lists negotiated between shipbuilders and men's unions. In a few instances, the lists are not district lists but yard lists," explained the secretary of the Shipbuilding Employers' Federation at the beginning of 1917.\(^2\) There remained, however, an irreconcilable minority among the shipwrights, ship-painters, carpenters, etc., while the blacksmiths, angle smiths, electricians, coppersmiths, were also time-workers.

In the engineering trades payment by results was much less general. There had been an agreement, under which piece-work was allowed in the engineering trades, made in 1907 between the Engineering Employers' Federation and the principal engineering unions, but it was terminated before the war. The Secretary to the Engineering Employers' Federation thus described the position at a meeting of the Employers' Advisory Committee in July, 1917.\(^3\) "The arrangement that we had with Trade Unions relating to piece work was embodied in the 1907 agreement which was terminated (cancelled by the A.S.E.) before the war. The arrangement that we have with the unions on the fixing of premium bonus basis times is contained in a memorandum which was not adopted by all the societies, and which is simply a recommendation. There is now no agreement except local agreements."\(^4\)

Piece-work had been coming increasingly into engineering during the war, and even fitters and turners, and the skilled tool-room men, whose position caused so much unrest in the trade, had acquiesced readily, in many cases, in the introduction of some system of piece-work or collective bonus.\(^5\) As a whole, however, probably, the majority of skilled men in the engineering trade looked with suspicion on

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\(^1\) The "gang" system adapts itself easily to piece-work. Thus brass-casters with one of the most elaborate and successful systems of settling piece rates in the metal trades of the country are piece-workers who share their large earnings with their helpers; cf. the cautious statements of a delegate of the Brass Workers, and Metal-mechanics' Association, before the Committee on Production, 22 August, 1917. "I have two men and a boy at work for me. The boy gets £1 13s. 6d. a week. The two men pay income tax, so that they must earn £4 or £5. I pocket the rest,—a great deal but ... I worked on an average 8\(\frac{1}{2}\) days per week for 2 years."

\(^2\) L.R. 141/2.

\(^3\) M.W. 89791.

\(^4\) The following is a typical example of such a local agreement. It is extracted from the working rules agreed to in March, 1916, between the Derby Engineering Trade Employers' Association, and the A.S.E., Patternmakers', Workers' Union, etc. "Employers and workmen are entitled to work piecework provided—

(a) Prices are fixed by mutual arrangement between the employer and workman.

(b) Each man's day rate is guaranteed irrespective of his piece-work earnings.

(c) Overtime and night-shift allowances are paid in addition to piece-work prices on the same conditions as in each shop for time work."

These stipulations were the same in substance as those in the discarded general agreement of 1907.

\(^5\) M.W. 89791.
systems of payment by results as applied to themselves, while—although the Amalgamated Society of Engineers was not officially opposed to payment by results as such, with due safeguards—the local trade union officials constantly threw difficulties in the way of its introduction in specific cases.

(b) Attitude of Employers.

Employers were predisposed to avail themselves of the opportunity afforded by the war changes in methods of production. The belief was general among them that payment by results was the most effective stimulus to exertion; their effort for a generation before the war had been in the main to extend such systems, and that the extension had gone no further was due entirely to the opposition of the unions. Payment by results was not, however, the first thought of employers when the need of increased output became apparent. Dilution of skilled labour, the suspension of output and demarcation restrictions, and the removal of limits on earnings where systems of payment by results were already in operation were the first innovations proposed by them. The Shipbuilding Employers’ Federation, it is true, suggested that the introduction of piecework would very likely meet the existing shortage of shipwright labour, but they did not press the point, and were more concerned to maintain the piece rate system where it was already established against the demand of the workpeople, which the latter were able to press with some success in the existing shortage of shipyard labour, for “piece-rate time rates,” “lieu rates,” and similar systems, under which the workman received for time-work an assured remuneration based on previous piece-work earnings. In a deputation to the Ministry on 9 June, 1915, from the Emergency Committee of the Federation a statement of work done by eighteen squads of riveters in 1914 and 1915 was handed in, showing a fall in the number of rivets per man per day from 346 to 221 after the change to time-work. The work, it was stated, was of a lighter and easier character, and the employers, if they considered only their own interest, would raise no objection to the increased cost, since their contracts with the Government were on the basis of actual expenditure plus a percentage. The parallel memorandum submitted to the Committee on Production by the Federation of Engineering Employers contained no reference to extending payment by results.

(c) Policy of the Government.

Nor did the Government in its early negotiations with the trade unions press for the extension of payment by results. Doubtless such an extension might have been implied in Mr. Lloyd George’s appeal at the Treasury Conference to suspend all restrictions on output, and subsequently it was held in a number of arbitration awards that refusal

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1 Memorandum as to negotiations with the Shipyard Trade Unions handed in to the Committee on Production, 11 February, 1915. (Hist. Rec./R./180/4.)

2 Memo. on Labour for Armaments, 9 June, 1915. (Hist. Rec./R./320/1.)
to accept payment by results did constitute restriction of output, but the actual examples of restrictive practices given by Mr. Lloyd George were limitation of number of machines which one man might work, opposition to the employment of semi-skilled labour, and opposition to the admission of female labour. It was realised that restriction of output might be practised as a method of protecting piece-rates. The Committee on Production in their second Interim Report, 20 February, 1915, called attention to this practice of workmen confining their earnings to "time and a half" or whatever the local standard might be. They understood that the practice was due to a desire to protect piece-rates, and suggested as a remedy that the Government should require firms engaged on the production of shells and fuses to give an undertaking that they would not take war-time earnings into account in fixing future piece-rates and would not cut piece-rates during the war unless some change in the method of production, such as the introduction of a new type of machine, justified the change. A little later Mr. Barnes called attention in the House of Commons to the effect of cutting piece-rates on output; a prominent employer drew attention to the same evil; and a large Midland firm of explosives manufacturers complained that they could not induce their piece-workers to exceed 25 per cent. over time-work output, it being the custom of the district in the past to reduce rates if they did.

Restrictions on output on systems of payment by results, therefore, was one of the evils which it was the object of the Munitions of War Act to remove. No specific reference to this type of restriction occurs in the Act, so that to deal with it it would be necessary to refer to the Board of Trade or to arbitration under Section 4 (3) the question whether any rule, practice or custom of this kind did as a matter of fact restrict production. Similarly no specific provision was made to prevent the cutting of piece-rates or bonus times. The need for such provision had not been put forward at the Treasury Conferences and found no place in the Treasury Agreement on which the second schedule of the Act was based. Complaints, however, that restriction was practised to protect piece-rates continued to be made, and led to two attempts to reassure the work-people. In the first place the National Advisory Committee representing the unions attending the Treasury Conferences issued an appeal in July, 1915, in which after referring to cases of restriction of output reported to them and reminding their constituents that the Treasury Conference had decided that it was imperative that restrictions on output on war-work should be removed, they pointed out that the usual justification of such restriction, the fear that prices would be cut and the increased output made the standard, was no justification in view of the country's need and in any case had no ground since "under the Treasury Agreement

1 Mr. W. L. Hichens, Chairman of Cammell Laird, in the Memorandum referred to above.

2 Memo. on position leading to introduction of the Bill, June, 1915. (Hist. Rec./R./221·1/6.)

3 Ibid.
every conceivable safeguard was set up to protect the workman's interest when we return to normal times." In the second place, a press notice was issued in September, 1915, calling attention to the fact that changes in wages in a controlled establishment without the consent of the Minister were illegal, and that the Minister was prepared to use his powers to prevent the reduction of piece-rates as a consequence of the increase of output due to suspension of restrictions; a circular to the same effect was sent to all controlled establishments. Mr. Lloyd George gave the same undertaking at the Trade Union Congress at Bristol. Mr. Isaac Mitchell had suggested investigation and action in one or two specific cases, and Mr. Owen Smith urged that it was necessary that all proposed alterations in piece-rates should be submitted to the Department for sanction; the number of piece-rate adjustments, however, as the volume of munitions work increased became too great for such detailed control.¹

The importance of this pledge was hardly realised until its results began to be felt a year or two later. Employers made no organised protest at the time; doubtless it was accepted by them, as it was by all the officials concerned, as a reasonable concession to the workpeople's fears in return for the suspension of restrictions on output. Since the fixing of a piece-rate, or any other basis for payment by results, is difficult on all new work, and the production of munitions involved much new work, rates were fixed in many cases too high, and, reduction being prohibited, lucky individuals were enabled to make abnormal earnings, which led, gradually but inevitably, to a serious dislocation of the normal relations between the earnings of different classes and grades of workpeople. The guarantee did not even expressly exclude changes following on changes in methods of production. Changes of this character were not formally objected to by the unions and were allowed by the Wages Section of the Department; and this qualification gave some elasticity to the principle. But neither employers nor workpeople were satisfied with this carrying out of the pledge, and in the discussions which took place in the summer of 1917 on a proposed clause protecting piece-rates in the Munitions of War Amendment Bill of that year, employers attributed to the artificial fixity given to piece-rates much of the current ill-feeling and unrest in industry, while the trade unions accused employers of taking the opportunity afforded by trivial modifications in the methods of manufacture to force on their employees disproportionate reductions in piece-rates. By that time, however, the question of payment by results had become more important and more controversial. The manufacture of the more important types of munitions has passed from the state of experiment into that of routine production, in which the technical possibilities of payment by results were very much increased, and the combined increase in demand and reduction in the supply of all kinds of labour made the problem of finding a stimulus to sustained or increased exertion correspondingly more urgent.

¹ L.R. 2339. See also above, p. 104.
II. Official Propaganda before 1917.

The proposal of an organised campaign to extend payment by results, as distinct from measures designed merely to protect piece-rates and so stimulate output, appears as early in the history of the Ministry of Munitions as November, 1915, when the deputy labour officer for Scotland wrote to the Department from Glasgow, suggesting that shipwrights should be paid by piece-work. This could easily, he said, be arranged, "though the Ship Constructors' and Shipwrights' Association was against the proposal, and as firms were afraid that by moving in the matter they might hinder, rather than help, output, they were not prepared to do anything unless they had the sure backing of the Ministry of Munitions." Only one high-class firm of shipbuilders (William Denny, of Dumbarton) had introduced the system as yet. The Chief Labour Officer for Scotland in forwarding this letter noted that "many firms had lately said that output would be very largely increased by piece-work." The deputy labour officer, prior to joining the government service, had many years experience in various Scotch shipyards. He recommended the Ministry of Munitions to have a conference with leading officials of the Shipwrights' Association with regard to the proposal. This communication was sent to the Admiralty who deprecated action.

Incidentally the subject came up at conferences convened by the Admiralty on 21 March and 1 April, 1916, at which representatives of employers, trade unionists and the Ministry of Munitions were present, in order to discuss (a) the question of "piece-work time rates," (b) the computation of overtime, with a view to improving time-keeping in shipyards. Much more emphasis was, however, placed on the latter question than on the former, and an elaborate scheme for improving time-keeping in shipyards was a few months later drafted by the Central Munitions Labour Supply Committee.

III. Propaganda by Employers.

Official propaganda achieved little in the field of private employment in 1916. Piece-work and other systems of payment by results were,

1 M.W. 64440.
2 The comment of the official to whom it went may be quoted:—
   "In the Royal Dockyards, shipwrights have been on piece-work for many years, but they have been mainly time-workers with intermittent piece-work. Having regard to the present tendency of the workmen to insist on very high fixed time-rates as a minimum for piece-workers, it is considered that the present time is not the most suitable for attempting innovations of the kind. It is very desirable that the Ministry of Munitions should try to stop the exceedingly objectionable system known as 'made-up allowance,' lieu rate, guaranteed day-rate, piece-work energy on time-rates, on the nod.' All these mean much the same thing: viz., that instead of a worker being paid according to the amount of work he has done, he has now secured that he shall be paid at a minimum rate, originally equivalent to, and now in many cases much in excess of, the previous average earnings under piece-work rates quite regardless of his output. This system encourages idling, and anything that can be done to stop it will have a greater effect in increasing output than anything that can be done in the direction of enclosed reports."
3 M.W. 65058.
however, spreading all the time as a result of the pressure of employers. Most of the work undertaken by women and unskilled male dilutees in engineering shops was put upon some systems of payment by results as soon as the workers had become expert at it; the minimum time-rates assured to these workers by the Ministry’s Orders were intended only as a safeguard during this period of training. The work was repetition work, and lent itself to such methods of remuneration. With their skilled workers the employers were in many cases able to institute or extend piece-rates or premium bonus by agreement. The terms of the national agreement, regulating payment by results, from which the Amalgamated Society of Engineers had withdrawn just before war broke out, were re-embodied in local agreements in some cases, and served as the basis for private arrangements, even where no formal collective agreement was concluded. An inquiry made by the Ministry through its chief investigation officers early in 1917 indicated that about one-third of the general engineering shops of the country had adopted piece-work by that time; and skilled time-workers, fitters and tool-room men, whose work did not lend itself to a piece-rate basis, had in many cases acquiesced readily in the introduction of some form of piece-work or collective bonus. A circular inquiry addressed to secretaries of local Engineering Employers’ Associations a little later (May, 1917) gave similar evidence of extension; Derby, for example, showed the large proportion of nine out of eleven firms with more than half their employees on some system of payment by results. It was noted by the officers of the Wages Section of the Ministry that the Midlands were much further advanced than the North in the matter of piece-rates; a difference that would be explained by the difference in the character of their pre-war production.

This policy of employers went beyond the limits of private negotiation and local agreement in three particulars. In the first place they used the possibilities of payment by results as an argument in arbitration hearings. It was frequently their practice to point out in replying to applications for increased wages before the Committee on Production and on other occasions that an acceptance of piece-work by the shipwrights’, carpenters’, cabinet-makers’ and furniture makers’ societies would, per se, increase the workers’ incomes without forcing on the employers any increase of the district time-rate.

1 Vol. V., Part II., Chap. II.
2 L.R. 3601, 1093.
3 Wages Section Report, 8 June, 1917.

At the second of these, the extra rates paid were incidentally discussed. Payments “on the nod” and lieu rates might (it was admitted by the men) mean an increase of “anything from 5 per cent. to 30 per cent. on existing piece-prices,” given either to stimulate output or by way of compensation to the skilled piece-worker who through the admission of less skilled labour found that the “most intricate and least remunerative” portions of a job were left to him.
In the second place they claimed that a refusal on the part of workpeople to accept any system of payment by results amounted to restriction of output, and they referred such cases for arbitration under Section 4, Subsection (3) of the Munitions of War Act, 1915. This subsection made it illegal to persist in any rule, practice or custom, not having the force of law, that tended to restrict production, and left it to the Board of Trade, or on the application of either party to arbitration, under Part I. of the Act, to determine whether in any case the rule, practice or custom did tend to restrict production. It has been noted above\(^1\) that this section and subsection constituted the only means in the Act of dealing with the practice of restricting output to protect piece-rates, which was so often referred to in the discussions preceding the passing of the Act; but there is no evidence that any compulsory change in methods of remuneration was contemplated when the subsection was drafted. The wording of it, however, gave employers the right to appeal, which they took in individual cases, and their contention was upheld.

Thus, Sir Thomas Munro, on 24 July, 1916, decided as a single arbitrator that the refusal of the electricians working in Messrs. Beardmore's engineering shop and shipyard to work on a premium bonus system (which had been accepted with a "very considerable increase in output" by other mechanics in other departments of the establishment), tended to restrict production, and he, therefore, prescribed in detail a system of premium bonus for the electricians, suspending their time system of payment for the period of the war.\(^2\) Similar awards (with regard to joiners, etc.), were made by the Committee on Production on 22 November, 1 December, and 18 December, 1916.\(^3\) While such awards may have contributed in some cases to the extension of payment by results, the opposition to such systems was much too deep-seated to be removed by such an indirect and incidental procedure. A case such as that of the Brightside Foundry & Engineering Company showed the impossibility of enforcing such an award where the opposition was determined, and Sir Thomas Munro himself pointed out the difficulty to the Employers' Advisory Committee.\(^4\)

The system of recognising a "piece-work time-rate," was justified by Mr. Willkie on the ground (often complained of by workmen at the time) that "the Government presses the employers to put twenty men on work where there is only room for ten, and it is done to enable them to make their money at the usual rates." Mr. Carter, President of the Shipbuilding Employers' Federation, denounced both systems vigorously. "The one thing that the shipbuilders in this country are against is this 'on the nod' and this 'piece time rate.' We have begged of the representatives of the Government to make it illegal. It is not the employers who want it, but it is certain trades have forced it on them by refusing to fix up piece-rates, and to get the work done for the Government some people have had to pay anything."

Such payments, it may be observed, offered a ready means of evading the spirit, if not the letter, of section 4 (2),—the "sanctioning" clause of the Munitions of War Act.

\(^1\) p. 124.  \(^2\) C.E. 185/5.  \(^3\) Awards 585, 619, 642, 643.  \(^4\) See Appendix II.
In the third place, an attempt was made to use subsection 5 of Section 4 of the Act, to compel the acceptance of payment by result. This subsection provides that—

"The employer and every person employed in the establishment shall comply with any regulations made applicable to that establishment by the Minister of Munitions with respect to the general ordering of the work in the establishment, with a view to attaining and maintaining a proper standard of efficiency, and with respect to the due observance of the rules of the establishment."

In order to make the Act effective, the Minister made the following regulations under this subsection on 14 July, 1915:

"(1) The owner of any controlled establishment shall as soon as practicable post rules relating to order, discipline, time-keeping and efficiency, conspicuously in his establishment, so as to bring them effectively to the knowledge of workmen employed therein. Copies of rules so posted shall be sent to the Minister of Munitions.

"(2) Every person employed in the establishment shall comply with any rule so posted, provided that no person shall be liable to a penalty under the Act for failing or refusing to comply with any rule, if the Munitions Tribunal is satisfied that the rule is an unreasonable one, or that the person had just cause for his failure or refusal to comply with it."

The Engineering Employers' Federation therefore drew up a code of works rules, and circulated it to its members. Among these was the following:

"5. Piece-work or Premium Bonus System.—All persons employed shall work on piece-work or the premium bonus system, as and when required by the Company, time-rates in the case of piece-work being guaranteed."

The validity of this rule, if challenged, depended on a munitions tribunal holding it "reasonable." The matter does not seem to have been tested, the direct appeal made by employers against the refusal to accept payment by results on the ground that such refusal was restrictive of production, raising the question in a different and more definite form. The result of that appeal has been given above. The mere posting of a rule, posted on the instructions of the Minister of Munitions, though not drafted or approved by him, may have had some moral influence in inducing men to waive their objections to payment by results; but in practice it was found that the only rules that could be enforced were the Model Rules issued by the Ministry, which contained no provision of this sort.

IV. Payment by Results in National Factories.

While official action had little result in the field of private employment, systems of payment by results were generally adopted in the National Factories which began work in the course of the year. The

Boards of Management of factories established in 1915 had no basis to go on in fixing rates except the schedules of Woolwich and the armament firms which had manufactured projectiles before the war. These were based on conditions of manufacture on which the new factories, just because they were new, had been able to improve, with the result that they enabled the workers to earn wages which excited the envy of more skilled time-workers. To meet this difficulty and to encourage other Boards of Management to adopt systems of payment by results, the department of the Ministry responsible for gun ammunition and the supervision of national factories (A.M.3) set up a section, which had the assistance of an expert from the firm of Messrs. Herbert of Coventry, which made a careful investigation into the pricing of shell operations and furnished information as to normal speeds for certain processes. Most of the National Projectile Factories on the strength of this information adopted piece-work for machine hands, with a bonus on output for toolroom operatives and other indirect producers, in the summer of 1916. National Shell Factories were recommended, early in 1916, to institute the system of overhead bonus, a recommendation adopted by the Huddersfield Factory, in February, and by seven or eight others soon after. In the summer the Director of Area Organisation decided that piece-work would increase output in Shell Factories also, and they were recommended to adopt piece-work, reporting their schedules to the Labour Department in order that a representative of that department might discuss the proposals with the management. Each Board, however, was left free to make its own decision, and while some changed from collective bonus to piece-work or adopted a combination of piece-work and bonus on output, others continued to rely on collective bonus. An inquiry in February, 1917, addressed to eight National Shell Factories with systems of collective bonus elicited very favourable opinions; the system was said to increase output and reduce labour cost.\textsuperscript{1} The National Factories were outside the control of the Wages Section of the Labour Department of the Ministry, until they became controlled establishments in February, 1916; the Royal Factories and Woolwich Arsenal were never under its control, their wages being settled by the Director of Munitions Finance with final reference to the Treasury.

After the first few experimental months the earnings of piece-workers in national factories were not abnormal; they were certainly moderate compared with some of the earnings in privately-owned works.\textsuperscript{2} The substitution of women for men in shell factories in the course of 1916 (with alterations in the methods of production) did much to keep the piece prices for ammunition comparatively low. A section of A.M.3 worked out ideal costs which provided an exact and stable

\textsuperscript{1} D.A.O. Committee and N.P.F. Committee Minutes, and C.E. 2266/4, 389/4, 492/4, 411/4.
\textsuperscript{2} Hist. Rec./R./342/148. In the National Shell Factories in September, 1917, average earnings were as follows:—Fitters, £3 16s. 8d.; Turners, £4 4s. 5d.; Machine Operators, Men, £3 7s. 3d., Women, £1 18s. 3d.

In National Projectile Factories, July, 1917, average earnings of Machine Operators, Men, £4 4s. 3d., Women, £1 17s. 4d.
basis for piece-prices. Even before this an inquiry, arranged by the Wages Section at the beginning of 1916, had given a basis of definite information on piece-rate and piece-workers' earnings on shell, which was supplied to Boards of Management. During the autumn of 1915, the Department had received not a few complaints of the excessive earnings made by machine men on shell work. Thus at the Projectile Company, Wandsworth Road, it was shown that 57 machine men engaged on simple operations like shell boring and turning had for nine weeks been earning on an average £4 3s. 0d. a week, or nearly twice the wages of an ordinary skilled tradesman. These high earnings were felt to be objectionable from the point of view not only of national economy but actually of production, since "if a man could earn more than he needed in five days he had little inducement to work on the sixth."

It was therefore decided to hold an inquiry to find out how far the cause of the trouble lay in inflated piece prices and if so, whether it could be removed.¹

The enquiry was directed chiefly to the manufacture of 18-pounder, 4·5 in. and 6 in. H.E. shell. By the end of February sufficiently detailed information had been obtained to serve as a basis for advice to the National Shell Factories and managers of certain other controlled establishments, though it was not definitely tabulated. Thus details of operation rates were sent in May to the Secretary of the Engineering Employers' Association for the North-West of Scotland, who applied to the Ministry for advice on behalf of his members, explaining that unduly high piece-rates for shell had been fixed early in the war by some local firms which had not previously made shell, and that the majority of shell-making firms (who were now preparing under pressure from their workers to fix their piece-rates) wished for a schedule based on that of experienced firms such as had been prepared for the National Shell Factories.² The results of the inquiry gave the Department a concrete basis for an estimate of piece-workers' earnings, and were therefore of value in negotiations for the improvement of the relative position of time-workers. On the whole, however, during the first year of the Ministry's existence, the Department was able to do little towards the systematisation of piece-rates. The only statutory power which the Department could use to regulate piece-rates was the power of requiring employers to submit changes in wages for its sanction under Section 4 (2) of the Act. This it used, as it had opportunity, to stabilise rates; but the power extended only to controlled establishments, a limited class in 1915 and 1916, and was further limited by the right of appeal to arbitration. And the Wages Section never possessed a staff that would have enabled it to scrutinise every change in a piece-rate or base-time.

The influence of the production departments was greater. They controlled the national factories, and were able by careful cost-accounting

¹ M.W. 76556.
² M.W. 112821, cf. Committee on Production award in the case G. & J. Weir, Cathcart (20 March, 1916). It was stated that pieceworkers earned up to £8 a week.
to find a satisfactory basis for piece-prices. In the light of
the results of the national factories, they were able to criticise the
costs, especially the labour-costs, of private firms, and to divert
contracts for shell and other ammunition from those which were too
expensive.

V. Propaganda in the Shipbuilding Industry, 1917.

An organised campaign to extend payment by results was under-
taken first in the shipbuilding industry as a result of a Cabinet decision
early in 1917. The proportion of piece-workers here before the war was
much higher than in engineering or woodwork, and the possibilities of
dilution were much less.

The enemy submarine campaign in the winter of 1916-17, gave a
new importance to any device for economising skilled labour or securing
a larger output from the limited supply available. The Ministry of
Munitions was not directly concerned in the negotiations with
employers and unions, but the shipbuilding trades were so far identical
with the trades engaged in the production of munitions under the
Ministry’s supervision, that any results achieved by the Shipyard
Labour Department of the Admiralty and the Ministry of Labour,
would have affected the work of the Labour Department of the Ministry
of Munitions, and the mere negotiations helped to determine the
attitude of unions and employers when they came to discuss the
Munitions of War Amendment Bill in July and August. Some account
of them is therefore given here.

On 5 January, 1917, a meeting of the Federation of Engineering
and Shipbuilding Trades, which embraced some thirty trade unions,
but did not at that date include the Amalgamated Society of Engineers,
was held at Montagu House to meet the Minister of Labour.1 The
Minister of Labour intimated that it had been brought to his notice that
differences had arisen in various parts of the country in the engineering
and shipbuilding trades, in connection with proposals that had been
made with a view to securing the maximum output in these trades
by changing the method of remunerating labour from the time work
system to that of payment by results. He had asked the Federation
to meet him in order to put before them proposals which he intended
to make, with a view to the matter being thoroughly investigated by
a competent tribunal, under the guidance of a suitable chairman, with
the assistance of persons having practical acquaintance with works
management and industrial organisation, and he expressed the hope
that he would secure the co-operation of the federation in the enquiry.
The Minister’s proposals were accepted “as a recommendation” to
the executives of the affiliated societies, but it was decided to adjourn
till January for any definite decision.

1 See account pp. 197 ff. A.S.E. Journal, March, 1917, and Boilermakers’
Journal; also the account with comments in Carpenters & Joiners’ Journal, 
March, 1917, p. 197.
It was also decided to request the Minister to give a written statement, explaining his proposals in detail; he wrote as follows:—

"The proposals I made to the general meeting of the Federation are identical with proposals I submitted to the Engineering Employers' Federation and the Shipbuilding Employers' Federation, at conferences which were held earlier during the same day. Briefly I propose that in order to investigate certain points that have arisen in connection with questions of remuneration and systems of payment for securing increased output in the Engineering and Shipbuilding Trades, there shall be appointed by the Minister of Labour a special Committee consisting of representatives of the employers and of the Trade Unions, with an independent Chairman accustomed to industrial enquiries, the reference to the committee being to consider and report on the systems of payment now in operation in the Engineering and Shipbuilding Trades with a view to the adoption of the most efficient system, having regard to the interests of the State, the workpeople and the employers.

"It is intended that the Committee shall conduct their enquiry in the chief engineering and shipbuilding centres, and local representatives of the trades whose wages conditions are under review will be co-opted as members of the Committee, and will act whilst these conditions are being subjected to enquiry.

"The Minister will be glad to receive from the Federation of Engineering and Shipbuilding Trades suggested names of representatives from amongst whom he can select the persons to act on the Committee. It will probably be found advisable that the Committee should include three representatives of the workmen, and three representatives of the employers.

"A report of the Committee will be submitted to the Minister as early as possible, and he will be glad at a later date after receipt of the report, to discuss the matter again with the Federation of Engineering and Shipbuilding Trades."

The proposal of the Ministry of Labour was not received with favour. At the adjourned meeting, on 19 January, 1917, of the Federation of Engineering and Shipbuilding Trades, the meeting took the bit in its teeth and voted (by 38 to 29) in support of a motion of Mr. Dawtry of the Steam Engine Makers' Society:—

"That this conference of the allied trades, believing that the proposed enquiry into systems of payment by results cannot be of any value in assisting the successful prosecution of the war, and cannot profitably be discussed by Trade Unions except in conjunction with other controversial questions, we therefore agree that the time is not opportune for such an enquiry, and hereby affirm at this juncture that we cannot agree to the proposed enquiry."

The wording of this resolution was due to the Executive Council of the Amalgamated Society of Engineers, which, although it had dissociated itself for some time from the Federation of Engineering and Shipbuilding Trades on account of its constitution, had yet met
the allied trades in the morning of 19 January, had represented the situation to them, and secured their support for the resolution adopted in the afternoon.

In a report by two, members of the Executive Council of the Amalgamated Society of Engineers, the society explained its own refusal to co-operate in the proposed enquiry on the grounds that it referred more to post-war problems than the present, that it "could not be of any value in assisting the successful prosecution of the war," and could only be considered profitably in connection with the whole question of post-war restoration of trade union conditions. There was further in the mind of the Executive Council some anxiety lest the interests of engineering should be overshadowed by those of shipbuilding. No single enquiry, it represented, could possibly cover both trades.

At the same time the Amalgamated Society of Carpenters and Joiners, which had been engaged on canvassing its members with regard to the introduction of premium bonus or piece-work in connection with the shipbuilding and housebuilding industries, reported that out of 17,000 members a majority of 5 to 1 had voted against either system and for a strike if any employer attempted to change from the hourly system of payment. "Now," characteristically observed the society's Journal, "we can inform any employer or Government Department that if they attempt to introduce any departure from our present system of payment they will be courting trouble." 1

Despite these rebuffs, the attempt was continued. On 7 February a general conference of the representatives of the trade unions concerned was held, when the Prime Minister and Admiral Jellicoe addressed the meeting on the urgency of increased shipbuilding. As a result on 27 February, 1917, the Federation of Engineering and Shipbuilding Trades accepted at their quarterly meeting the principle of payment by results "as the Government had determined that it was in the national interests that such a system should be adopted," and undertook to co-operate loyally "with a view to securing an increased output in the shipbuilding industry in order to meet the great national danger created by the wholesale attacks on shipping now being made by the German submarines." 2 It must be remembered, however, that the federation had no power to commit its constituent bodies.

On 12 March a letter was sent to the Council of the federation by the Minister of Labour, explaining the system proposed for the introduction of the change. Its proposals were as follows:

1) Proposals for the adoption of payment by results were to be made by the employer to the representatives of the trade union concerned.

2) Counter proposals, if any, were to be made within 7 days by the workmen.

1 Amalgamated Society of Carpenters & Joiners' Journal, February, 1917, p. 103.
2 Hist. Rec./R./342/121.
(3) In case of disagreement, a reference of the points at issue was to be made within 10 days to a district conference of employers and trade unions concerned, or to a local tribunal which would be set up in each district and would consist of two technical advisers for each trade (one appointed by employers and the other by the workmen in the district), with an impartial chairman appointed by the Minister of Labour. Any decision reached by such a tribunal would be made binding on non-federated firms.¹

(4) The introduction of payment by results on such terms was to be duly recorded as a departure from trade union customs for the period of the war, with the usual implications:

(5) Any such agreement should "include provisions that the existing time-rates shall be deemed to constitute a guaranteed rate for all time worked, should this be desired by the workmen's representatives."² The district conferences included in the scheme should decide on general questions as to whether a system of payment by results should be introduced uniformly or by each shop concerned, and as to the method of its introduction. District committees of employers and employed should then be appointed for each trade or district, to draw up a schedule of the rates or prices for the trade in that district; or if no district committee or local tribunal took action, a shop committee ("of that trade in each shop") should be set up to decide the matter.

"The local officials of the Ministry of Munitions and the Shipyard Labour Department of the Admiralty," it was added, "will be prepared to lend any assistance in their power," as would the Ministry of Labour.³

This scheme resembled the scheme of dilution commissions employed with considerable success the year before on the Clyde and elsewhere. Mr. Macassey, at this time head of the newly-formed Shipyard Labour Department of the Admiralty, was Chairman of the Clyde Dilution Commission.

It was arranged⁴ that Mr. Macassey should hold meetings in the course of March, at Hull, Glasgow, Newcastle, Barrow, Liverpool, Cardiff, Bristol, where he should speak to delegates of all the trade unions concerned with shipyard work. After he had spoken in each place, members of this Department were to stay behind and attempt to

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¹ The principle of extension of awards had just been decided on for inclusion in the (unsuccessful) Munitions of War Bill then before Parliament.
² The secretary of the Boilermakers expressly disclaimed for his members a guaranteed time-rate when on piece-work (cf. Committee on Production Hearing, 27 February, 1917). "We in our Society have never asked it, because where there are guarantees given, what happens very often is that the man is allowed only to earn something like time, time and a quarter, or time and a third."
⁴ M.W. 167355/4.
induce the district committees of all the trade unions to enter into an agreement (a model of which was drawn up) for payment by results. A list of the Ministry's chief investigation officers was sent to Mr. Macassey at his request and it was agreed that the Wages Section of the Ministry should co-operate in the campaign.

Mr. Macassey was in favour of adopting legislative compulsion. On 27 April, 1917, he sent to Lord Curzon a draft of a Bill to be carried out by the Admiralty "to provide for the introduction of piece-work in shipbuilding and ship-repairing yards and marine engineering works," with a note that "inasmuch as what is to be given effect to is the decision of the War Cabinet, I suppose it is beyond my official duty to suggest the legislative machinery required, but still as the Department is vitally interested and I am satisfied that piece-work can be introduced successfully, I hope it will not be considered presumptuous in my submitting a draft Bill for the Act required." The Ministry of Munitions was then promoting an Amendment Bill to the Munitions Acts; it was a subject of consideration whether sections on the lines of Mr. Macassey's proposal should be incorporated. Mr. Wolfe and Mr. J. C. Smith, however, were clear that if this was attempted, it must be done through a separate Bill, not as an appendage to the Munitions of War Amendment Act, and the proposed Bill never passed beyond the stage of a draft.

Some agreements were secured. An arrangement was made by the Shipbuilding Employers' Federation with the Shipwrights' Society through the Shipyard Labour Department that its members would work piece-work, and negotiations, it was repeated in June, had been taking place since, in the various districts, with reference to the framing of piece-work price lists. They were then proceeding on the North-East Coast. The Employers' Federation made an agreement also with the Woodcutting Machinists' Society on 5 June to the effect that so far as possible payments by result should be substituted for time-work, for the duration of the war. Piece-work prices were wherever practicable to be fixed by mutual arrangement between the employer and the workman or workmen who performed the job. But the electricians, the joiners, and other shipyard trades remained obdurate against any form of payment by results, and the serious labour situation which the great strikes of May revealed made it undesirable to press to an issue so controversial a policy as the national adoption of payment by results.

1 L.R. 141/4.
2 L.R. 141/2.
3 See A.S.E. Journal, May, 1917, pp. 16 and 17, for an appeal to A.S.E. members to accept piece-work, from Sir L. Macassey, Director of the Shipyard Labour Department of the Admiralty (4 May). "The scheme of the Admiralty has been constructed with assistance and advice from practical Trade Unionists lent to the Admiralty by their organisations. It contains every legitimate and reasonable trade protection. The scheme has been cheerfully and loyally accepted in many districts. In some there has been hesitancy in its acceptance because of its provision for payment by results. Let it then be clearly understood that no other system than piece-work will be introduced by the Admiralty."
VI. Negotiations with the Engineering Unions, and the Munitions of War Act, 1917.

In the engineering trades, with which the Ministry of Munitions was concerned, the statutory enforcement of payment by results was not seriously considered. The Ministry was engaged in negotiating with the unions to secure their support for the extension of dilution to private work, and the clauses in the Amendment Bill which did not bear on that proposal were all of them aimed at removing alleged grievances and so smoothing the passage of the unpopular clauses. The Labour Department neither opposed nor questioned the usefulness of the national propaganda of the Shipyard Labour Department; but just as it was not prepared to join with that department in pressing for statutory powers, so it was not prepared to follow its example in undertaking a national campaign. The reason for this attitude was brought out clearly in the negotiations over the Bill to extend dilution.

On the second reading Mr. Kellaway promised to propose in committee a new clause, which should be an addition to the second schedule of the original Act, prohibiting rate-cutting. The fear of rate-cutting still obstructed the spread of payment by results, and allegations of rate-cutting figured largely in the reasons given for the unrest that led to the strikes in May and the inquiry by the Unrest Commission in June. There was no other reference to payment by results in the draft; yet the Amalgamated Society of Engineers in bringing their proposed amendments before the Minister on 4 June included among them “that the question of ‘payment by results’ be not proceeded with on a national basis.” The Minister stated that he had never asked for it. Mr. Brownlie explained that there was very strong feeling on the subject in the country, because the rules of the society required that a question of that type should be settled by the district. Dr. Addison thereupon said: “I never dreamt of it. So far as the Ministry of Munitions is concerned, I think you ought to pay by results when you can conveniently. I think it is an advantage to all concerned if you can, but I never proposed that it should be raised as a national issue, and I do not propose to do so.” The policy of the Shipyard Labour Department was another and an independent matter. At a subsequent conference on 9 June reference was again made to the Shipyard Labour Department’s propaganda. “A big effort,” a delegate said, “is being made by the Shipyard Labour Department to get some sort of principle agreed as a national basis; but we say, with the best intentions in the world, we do not think it would be beneficial to you or to us to do such a thing. We know the forces which will be up against us and we ask that the question shall not be pressed on a national basis.” Where employers wished to introduce a change they could ask for a local conference, and, if necessary, get the question referred to a central conference within six days. Mr. Brownlie confirmed this; the Shipyard Labour Department would never get

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1 L.R. 159/22.  
2 L.R. 139/36.
payment by results in the engineering trades on a national basis; they could get it through the machinery for negotiations between employers and the unions already in existence; progress would only be made if negotiations on a national basis were dropped.

The attitude of the Amalgamated Society of Engineers’ executive on this occasion was quite consistent with their rejection of the Minister of Labour’s proposals the previous February. Their opposition was clearly in part due to disapproval of the “means and method” of the introduction of the proposals. In the next number of their Journal¹ the General Secretary of the Amalgamated Society of Engineers discussed the question dispassionately from the point of view of his society.

“It is necessary,” he wrote, “that any system of payment by results will be one which in war time will give the workers a proportionate increase in wages for the extra work done, and at the same time secure that no advantage will be taken when the war ends to reduce prices. Suitable machinery must be set up whereby the Trade Union wage for the time-workers shall be the basis for establishing a minimum wage for piece-workers of not less than 25 per cent. over day wages.”

This was the claim familiar to Mr. Macassey and others who had framed the women’s wages Orders in the preceding and current year. The article proceeded to quote as follows from the August, 1911, number of the Society’s Journal, issued under very different conditions but not in an atmosphere of industrial peace.

“We are not suggesting that piece-work is the only perfect form of remuneration. We should much prefer an ethical condition of industry under which every worker would do a fair day’s work and get a fair day’s pay. But the time is not yet. We must take things as they are and try to improve them. The abolition of piece-work is out of the question nowadays. All theorising on the benefits of the system are fallacious and futile as long as the methods of using it are so divergent and contradictory in the actual experience of the workshop.”

The Ministry concurred in the Amalgamated Society of Engineers’ view of the situation, left the extension of payment by results to negotiations between the employers and the unions, and gave an undertaking not to press for the adoption of payment by results on a national scale.²

The clause in the draft Amendment Bill prohibiting rate-cutting was described by Mr. Wolfe in a conference of trade union delegates on 21 May as “a pure gift.” The unions, however, did not hesitate to look the gift horse in the mouth. The clause provided that rates or basis-times once fixed should not be changed without consultation with the unions representing the workpeople concerned; the unions asked

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that for "consultation" should be substituted "consent" and also that the consent of the Minister should be required to any change.

The Ministry took these suggestions up with the Employers' Advisory Committee, who strongly resisted them. The employers had no objection in principle to consulting the unions and securing their consent; but they argued that it was impossible in practice because the unions had not an adequate staff of officials to deal with the innumerable cases that occurred. They were quite prepared to discuss changes with their employees and quoted the successful system of consultation and appeal in operation at Barrow as an example that might be followed; but they could not hold every change up for the attendance of a union official, and they did not like the possibility of national officials being brought into purely local questions. They objected also very strongly to the omission of any proviso limiting the operation of the clause to cases in which there had been no substantial change in the method of manufacture. It was explained to them that the unions attached very great importance to the clause. What the unions had in mind was indicated by a delegate at the conference on 9 June: "We are asking that the price of a job shall not be cut. You can make as many changes as you like in operation, but the fact that the firm alters a nut here or puts in a bolt there and then says that they have altered the method of manufacture is what we object to." What they desired was that they should be able to send to arbitration or appeal the question whether a cut in price was reasonable. The employers' objection to the requirement of the Minister's consent was based on the same ground. Changes were too frequent—"every hour of the day"—to permit of it.

It proved impossible to draft a clause satisfactory to both parties. The Department therefore invited them to discuss the matter with each other and agree on a procedure for fixing and changing rates with due protection for the worker, which could be attached to the Bill as a Schedule and made compulsory. The Engineering Employers' Federation and the Amalgamated Society of Engineers agreed on such a procedure. It was recognised that a different procedure might be required in shipbuilding; but it was hoped that a similar agreement might be reached there which could be embodied in the Schedule, and the employers' federation and the shipyard unions were invited to supply such an agreed procedure. They proved unwilling to fall in with the suggestion. The Standing Committee of the parties to the Shipbuilding Trades' Joint Committee wrote that they were of opinion that their needs were amply covered by clause 5 of the second Schedule to the original Munitions of War Act, and that it would be better, in order to avoid friction and trouble, to leave existing practice and custom in respect of piece-rates undisturbed. The Admiralty had already pressed for the exclusion of shipyards from the operation of

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1 L.R. 139/9.
2 L.R. 139/28, 8 June. L.R. 5581, 17 July.
3 L.R. 139/36.
4 Appendix IV.
5 L.R. 139/40.
6 L.R. 139/32.
the clause. It became necessary, therefore, to frame it in such a way that it would not interfere with existing or proposed agreements. A further provision had to be made to meet the case of women workers, who had no agreements with employers regulating procedure in changing rates and whose wages were protected by directions given under Section 6 of the Munitions of War (Amendment) Act, 1916.¹ The clause as finally drafted and passed, therefore, read as follows:—

“8.—(1) The undertaking which the owner of a controlled establishment is by virtue of sub-section (4) of section four of the Munitions of War Act, 1915, deemed to have entered into shall include an undertaking that piece prices, time allowances, or bonuses on output, or the rates or prices payable under any other system of payments by results once fixed in the establishment may not be altered except in accordance with any procedure which has been adopted by agreement between the owner of the establishment and the workmen or their representatives and is in force in the establishment at the passing of this Act or by the direction of the Minister of Munitions, which direction shall not be given except in accordance with an agreement between the owner of the establishment and the trade unions representing the workmen affected by the alteration, or failing agreement after consultation with the parties concerned.

Provided that this provision shall not apply where the alteration is made in accordance with the directions as to the rates of wages of female workers given by the Minister of Munitions under section six of the Munitions of War (Amendment) Act, 1916, nor shall this provision apply to shipbuilding yards or ship-repairing yards, but as respects such yards the Minister of Munitions or the Admiralty may make rules regulating the alteration of rates or prices payable under systems of payment by results therein.

(2) Where an alteration of the rates or prices payable under a system of payment by results is made in accordance with the provisions of this section, paragraph seven of the Second Schedule to the Munitions of War Act, 1915, shall not apply.”

The view of the Wages Section of the Ministry on the problem raised by the clause is developed in some comments by its head, on the agreement reached between the Amalgamated Society of Engineers and the Engineering Employers’ Federation.² He criticises the omission of the normal guarantee that the piece-rates or bonus system shall yield a percentage above time-rates, and the omission of any overt provision for any experimental periods, and for revision by consent. He regards Clause 5, which provides that no change shall be such as to effect a reduction in the earnings of the workers concerned, and Clause

¹ L.R. 139/185. See above, Chap II.
² L.R. 139/40, and Appendix IV.
7, which guarantees average earnings on new work as being open to the same objections as "lieu rates" ("piece-work time rate"). He objects to Clauses 3, 6 and 8, because they seem to contemplate the fixing of rates by the employer, while the essential thing is fixing by consent. The essentials of a sound scheme are in his opinion, (1) that no piece-rate having been fixed shall be altered except by consent; (2) that the time rate shall in all cases be guaranteed; and (3) that piece-rates, etc., shall be so fixed as to enable a workman of ordinary ability to earn at least 25 per cent. or $33\frac{1}{3}$ per cent. over his guaranteed time-rate.

Two of the officers of the section who had had considerable experience in assisting firms to instal systems of payment by results, emphasize the chief points in his comments. "Consent" covers the whole ground. The right of the workmen to negotiate piece-rates should be guaranteed. If it is, then the precise machinery whereby parties may confer had better also be left to their mutual agreement. If the workman has a legal say in the fixing of rates, he can see to everything else himself. They note as a result of their travels that employers everywhere realise that the old practice of fixing and changing rates behind the backs of the men was fatal to the best hopes of production, and that payment by results will only succeed if the workmen are given an equal joint voice in the fixing of prices. The guarantee of earnings, however, they regard as unnecessary and expensive.

**VII. Payment by Results in the Aircraft Industry.**

While the controversies in the shipbuilding and engineering industries turned on the extent to which systems already in use could be applied to work hitherto done on time, the war gave rise to a great industry in which all the workers practically who were taken over were accustomed to time-rates, while the actual processes of manufacture were mainly of a repetition character which lent itself to piece-rates or some other system of payment by results. The aircraft industry existed before the war, but only in the experimental stage; it went through a process of development in the course of the war which, under normal conditions, might have been spread over a generation. The dislocation of accustomed habits inevitably caused unrest among the workpeople, and disturbed relations between them and their employers. Their differences, due ultimately to the revolution in the character of the industry, focussed in two controversies, one on the admission of women to the industry; this has been discussed in the part of this history dealing with the control of women's wages; the other on the method of remuneration. A fuller account of the controversy over payment by results is therefore given in the case of this industry than in either of the other cases.

The manufacture of woodwork for aircraft was carried out by members of six or seven woodworking trades—carpenters, joiners,
cabinet-makers, coach-builders, organ-builders, pattern-makers, wheelwrights, case makers—represented by at least ten different unions. Each of these unions claimed to introduce into the industry its own wage rates and working rules, and raised difficulties as to "demarcation" and hours of work. The two points on which all the unions were agreed were (i) a claim for all workers to the rate of the best-paid trade engaged in aircraft in the locality concerned, and (ii) a combined opposition to any system of payment by results. These claims were inextricably intertwined, and the claim for a standard time-rate cannot be altogether omitted from an account of resistance to payment by results.

The claim to a standard rate and working conditions can be best followed in its early stages in the history of arbitration awards. It is to some extent a part of the department's administration of the Fair Wages Clause. In July, 1915, Mr. Mackenzie, at a hearing at Glasgow, rejected the claim of the workmen that "a rate of wages should be definitely fixed for all woodwork operatives in the Glasgow district, such rate to be the highest wage paid to any woodworking trade in the district." A similar claim (for the 11½d. an hour joiners' rate) on behalf of the Joint Woodworking Trades Aircraft Committee (Glasgow district), was refused by the Committee on Production in July, 1916 (award 340). The Committee was "unable to accept the contention that firms engaged upon aircraft manufacture should necessarily pay the rates of wages that may be agreed upon for the building and other trades, where many of the conditions of employment are dissimilar."

The claim to transfer the wage advances of one industry to another has been responsible for a large proportion of the difficulties of wage adjustment during the war, when very many workers have been transferred from their own work to something similar but not identical. The department in its fair wages administration and the Committee


The following statistics of trade union membership are of interest in considering the claim for standardisation of conditions:

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of 1914. Trade unionists in British Isles</td>
<td>3,919,962</td>
</tr>
<tr>
<td>Trade unionists connected with woodworking and furnishing</td>
<td>142,227</td>
</tr>
<tr>
<td>Trade unionist members of Amalgamated Society of Carpenters and Joiners</td>
<td>73,349</td>
</tr>
<tr>
<td>Trade unionist members of other woodworking unions</td>
<td>64,686</td>
</tr>
<tr>
<td>Total carpenters insured under housebuilding</td>
<td>123,722</td>
</tr>
<tr>
<td>Estimated number of Amalgamated Society of Carpenters and Joiners’ members in shipbuilding</td>
<td>10,000</td>
</tr>
<tr>
<td>Estimated number of General Union of Carpenters</td>
<td>8,000—9,000</td>
</tr>
<tr>
<td>Estimated number of non-unionist building carpenters</td>
<td>52,000</td>
</tr>
</tbody>
</table>

"Some thousands of these non-unionists are only 'hammers and saw' men, who during ordinary times would not be employed as carpenters."

"Our organising efforts in the future must be in the direction of closing up our ranks; there are far too many unions catering for woodworkers." (Journal of the Amalgamated Society of Carpenters and Joiners, November, 1915, p. 560).
on Production adopted an identical attitude, i.e., they insisted that payment for work should depend on the work done, and not on the original trade of the worker performing it. The position was stated clearly in one of the "reasoned" awards issued by the Committee on Production on 12 January, 1916, after a hearing in the previous month of an application from trade unions including aeroplane operatives in the London district for a uniform minimum wage of 1s. per hour and a recognised code of working rules, including provisions relating to hours of labour, wages, overtime, notice of leaving, travelling allowances, limitation of apprentices and improvers, etc. The Committee after "detailed inquiry into actual conditions" and visits to a number of factories refused both applications, on the ground that the industry was still in an undeveloped state, and that it was much too early to stereotype it. A similar claim was refused on 17 July, 1916, with the additional reason that it was undesirable to apply the rates claimed in the building industry to aeroplane work.

This defined the official attitude to the claim for a fixed minimum rate until the following year. Incidentally the Committee on Production noted that payment by results might be desirable.

"The increase in repetition work may be expected to make it practicable and expedient for piece-work to be applied to some portions of the industry. . . . The inspections which the Committee have made of various factories suggest to them that some of the processes involved could be performed on the piece-work system, and that the application of this system is likely to be of importance in the future development and progress of the industry.

"The Committee think that a properly adjusted piece-work system would probably lead to good time-keeping, efficient work and increased output (with higher earnings). The very close inspection both by the Government inspectors and the works' inspectors, and the checks provided at each stage by the fitting in of parts, ensure the maintenance of high quality in the work."

Payment by results, however, was strenuously opposed by the workers. At a general meeting of aircraft workers as early as December, 1915, a resolution against the adoption of any system of payment by results, was passed. The matter had been discussed in detail with the employers during the previous months. The comments

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1 Thus when in September, 1916, the Amalgamated Society of Carpenters and Joiners at Bristol claimed under the Fair Wages Clause the recent advance of 3d. an hour granted by the local Master Builders (an advance which would secure their members a standard 11d. an hour, whereas the chief local aircraft firm only paid 10½d. plus 4d. a day war bonus), the Wages Section of the Ministry held that the claim was not justified, and quoted the recent decision of the Committee on Production. Weekly Sectional Report, 20 October, 1916. See also above, Chap. IV.

2 Awards 151 and 340 of the Committee on Production, 1916.

3 See Vol. V, Part II for illustration of the current change of processes.

4 Times, December, 1915.
of the Amalgamated Society of Carpenters and Joiners in their Journal illustrate the hostility of the conservative worker, while the secretary's estimate that one-third of the woodworkers of the country were non-unionists partly explains his society's hostility to a system tending to weaken trade union influence. ¹

Unfortunately—from the point of view of the advocates of payment by results—there were departmental differences as to the policy to be adopted. Thus on 11 April, 1916, at an inter-departmental conference at the Ministry of Munitions on the payment of men and women in the woodworking trades, it was noted that the Admiralty employed aircraft workmen on time-work only, whereas the War Office permitted piece-work. It was agreed that this discrepancy might continue, since the Admiralty gave much fewer repetition orders than the War Office.

On 27 January, 1916, the Admiralty had sent out the following letter to 41 aircraft firms:

"I have to inform you that the employment of piece-work or the premium bonus system in connection with any constructional portion of woodwork of aircraft is considered by the Admiralty to be undesirable and that such systems should not be introduced by you in connection with any Admiralty Aircraft Contracts.

If such systems are now in practice in your works in the above connection it is desired that they should be discontinued as soon as possible." ²

On 5 May, 1916, the Engineering Employers' Federation asked for a reconsideration of this decision, on the ground that "the danger of faulty construction is just as great under pure time, as under piece or premium bonus systems." The remedy in either case was efficient supervision. To this the Admiralty replied on 1 July that it was impossible in Admiralty work to exercise the increased supervision which would be required. This decision was communicated to inquiring employers and trade unions.

The anomaly could not continue as the output of aircraft increased, and the shortage of labour became more and more pressing. In August, 1917, therefore, a committee was appointed to consider and report on the anomalies existing in the wages of aircraft workers. It was clear that the men's opposition to payment by results (a localised opposition, since the Coventry firms were almost wholly on piece-work or premium bonus, and it was estimated that the system covered 40 or 50 per cent. of the workers of the country),³ and their demand for a standardised week and working rules, must be faced, in the interests of the trade and of output. The committee, of which Sir William

¹ See above, p. 142.
² M.W. 53250/2; M.W. 167355/4; M.W. 124283/2.
³ "About 40 per cent. of the Contracts of the Air Board are on such systems and experience has proved that a change from time work to payment by results means an increase in production of from 25 per cent. to 50 per cent." (L.R. 4221, 22 September, 1917).
Robinson was chairman, contained the following members: Captain Little (Air Board) secretary; Mr. J. C. Smith (Ministry of Munitions); Captain Rogers (Air Board); Mr. A. G. Cameron (Amalgamated Society of Carpenters and Joiners); Mr. J. Compton (Coachmakers' Society); Mr. Henson (Daimler Motor Co.), Mr. Sigrist (Sopwith Aviation Co.), the latter representing the National Aircraft Committee and the Engineering Employers' Federation respectively.¹ In September, 1917, it reported unanimously in favour of

(a) a standard rate;
(b) standard working rules and conditions;
(c) a maximum working week of 53 hours;
(d) the general institution of payment by results.

So far from effecting a settlement, however, the committee's findings precipitated a crisis. The last proposal—the institution of payment by results—was put to a ballot of the members of the unions and rejected by a very large majority. Shortly afterwards the Department was inundated with demands for the immediate putting into force of (a) (b), and (c). The situation became very critical in the Hendon district, and after a conference between the Minister and the National Aircraft Committee, a joint Committee of the unions, negotiations were entered into with the Committee which resulted in the signing of an agreement on 30 October.²

At a meeting on 22 October, 1917,³ the secretary of the Amalgamated Society of Carpenters and Joiners reported the result of the vote of members of the ten unions affiliated to the Committee. The Minister pointed out the urgency of the German offensive in aircraft, and the desire of the Department to do its best for the industry. "We want," he said, "to make thoroughly good wage conditions and wages standards for your men, and we want you in return to make an absolute record in the output of aeroplane material." Sir William Weir admitted that there was some truth in the delegates' contention that the defective output was due to inefficient workshop management, but asked how the potential output of the workers was to be developed. The Union representatives refused a suggestion made by Mr. Kellaway that a statement should be sent to the press to the effect that (a) a standard rate would be adopted by the industry, and (b) the National Aircraft Committee would not resist the introduction of payment by results where the majority of men approved. The delegates, however, had no intention of interfering with existing systems, and would strongly advise their executives to that effect. Mr. Cameron himself was anxious to do all that was possible to help. He would go round to members throughout the country, urging them to do their very best for output, provided that the standard rate was secured. The best course would be to leave the question of payment by results and to go to the men and say: "The Ministry of Munitions has done all that they possibly can do to satisfy you, and they have established conditions

¹ Weekly Intelligence Report, 25 August, 1917.
³ L.R. 4914/8; 4914/2; 4914/5.
of employment which are satisfactory to the trade unions concerned and we appeal to you to do all that is possible to justify the efforts which we have made on your behalf."

The agreement of 30 October which was signed by the National Aircraft Committee embodied the recommendations of Sir W. Robinson's Committee with the exception that instead of providing for the general institution of payment by results, a clause was inserted confirming an understanding with the men that payment by results could be adopted where the employer and workmen concerned agreed.

"The Minister would approve and support any satisfactory system of payment by results that might be mutually agreed between employers and employed. The Minister would in each case satisfy himself, before approving, that the system proposed was a satisfactory system proportioning reward to effort; and also that it had genuinely been mutually agreed between the employers and employed, i.e. is introduced by arrangement and with the general consent of the men concerned."

This amounted to an undertaking, in return for the promise of the long-desired standard time rate, that there should be (i) no interference with existing systems of payment by results; (ii) no opposition to new systems if agreed by the majority.

This compromise was received with little enthusiasm on either side. The irreconcilable workmen said that the results of their ballot had been ignored, and that the Ministry of Munitions—

"instead of assisting the woodworkers to come to an amicable agreement, had provoked the woodworkers into adopting the 'down tools' policy by taking sides with the employers. We feel that this pernicious system, which will inevitably result in scamped and shoddy workmanship, should not be introduced into the manufacture of Aircraft. The lives of our Airmen are far too valuable to be exposed to such risk. As to the Ministry's charge of slackness of production, we answer that the principal causes are: (1) Allowing contracts for obsolete machines to be completed and then dismantled. (2) Inefficient inspectors in the Aircraft Inspection Department. (3) Shortage of materials. (4) Shortage of wood-working machinery. (5) Bad management.

"The Ministry of Munitions and the employers have had ample opportunity of settling this matter, and have lamentably failed. We therefore have taken the only action possible, and have ceased work, and we are determined not to resume until a settlement has been arrived at."

A serious strike was taking place at the Hendon works at the time of the discussion of the agreement, the signature of which had been hastened in consequence, and there was much unrest among aircraft workers.

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The employers and the Admiralty on the other hand also objected.

Sir Lynden Macassey, head of the Shipyards Labour Department, wrote on 27 November to the Department protesting against the proposed Order fixing (under the Munitions Act of 1917), a standard rate and standard hours for aircraft workers. Such an order must affect wages in the shipbuilding trades, since a considerable amount of aircraft was being made in shipbuilding yards. "The recent experience of the futility of attempting to confine the 12½ per cent. bonus to the original recipients proved beyond doubt" that such extension must take place. ¹ "Under these circumstances, the Admiralty could not be a consenting party to the making of any order which would give effect to the agreement already entered into, which they regard as most inexpedient and dangerous in its direct and indirect effects."

This protest was discussed with Sir Lynden Macassey by the Labour Committee on 27 November, and by the Employers' Advisory Committee on 6 December² and on 7 December, the Government Labour Committee decided to exclude shipyards from the operation of the proposed order. Accordingly the Order, when issued on 8 February, 1918, contained the following provision. (Clause 6.)

"These directions shall not apply to skilled aircraft woodworkers employed in a shipbuilding or ship-repairing establishment."

The Engineering Employers' Federation were equally hostile. The federation was not directly consulted before the signature of the agreement of 30 October. Only the London District Engineering Employers' Association were invited to discuss it (on 26 October), owing to the urgent need for a decision. The Engineering Employers' Federation refused to accept the agreement as the basis of a statutory order owing to the working conditions established thereby. "While admitting that their representatives had signed the recommendations of Sir William Robinson's Committee in favour of a standard rate, standard working rules and conditions, and the 53 hour week, they contended that the institution of payment by results was the price they were willing to pay. By the agreement on the other hand they had nothing to gain."

The difficulty again originated in the sources contributing to aircraft manufacture.³ Aircraft woodwork was produced in (a) aircraft establishments; (b) engineering establishments; (c) establishments in the building trade; (d) establishments in the furnishing trade; (e) establishments in the coachbuilding trade; (f) shipyards; each of which had its own customs as to methods of payment, overtime rates, and hours of work.

¹ L.R. 4914/12.
² L.R. 4914/12, L.R. 5581/15 and minutes of Employers Advisory Committee, 6 December. The Shipyards Labour Department had, through Sir L. Macassey, protested strongly against the extension of the 12½ per cent. bonus to the shipbuilders (See L.R. 5581/11, etc.), but had to accept this in the December time-workers order for shipyard men. It was correspondingly indisposed to accept this Aircraft Order.
The proposed order gave (i) overtime rates on a more favourable scale than those common in engineering works, and also laid down 53 hours as the working week "or such shorter time as may have constituted the working week, in the establishment concerned immediately before the date of the order. This in a building establishment would mean a week of 44 to 46 hours for aircraft workers: (ii) it also secured to the workers the rate payable to carpenters, cabinet-makers, coachbuilders, "whichever is highest," employed on aircraft in a district. The Engineering Employers' Federation strongly criticised both provisions, principally because the proposals would introduce alien wages and working standards into the engineering trades, already greatly disturbed by the 12½ per cent. advance.

"This means," said Mr. A. Smith, at the Employers' Advisory Committee, on 29 November, 1917, "that all the good work which has been done by the Committee on Production in order to take the manufacture of aircraft out of the housebuilding conditions is absolutely knocked on the head by this Order. We are not going to be a party to throwing back the aircraft industry into the building trade. We have the full support of the Committee on Production in this contention that it is a new industry and that it is more allied to the engineering industry than to building, in that it is not subject to climatic conditions, to short hours in winter, etc."

Again on 26 January, 1918, at a very full meeting of the Advisory Committee, he repeated:

"You are wanting us to give to a certain section of the workpeople special rates of pay, special hours of working and special rates of remuneration for overtime, night shift and holidays. Once we agree to that we open the floodgates and we cannot deny it to any other section in the works. We are not going to do it. The Government has made this mistake and we are not going to get them out of it on that basis. . . . We are not going to be swayed by any considerations of the workpeople going on strike, because the issue is very much larger than whether they are going to work 53 or 54 hours."

Meanwhile, workpeople were becoming exceedingly discontented, as November, December, and January passed without the issue of the Order, the quid pro quo for the acceptance of payment by results which they had very reluctantly and spasmodically permitted, and a formal letter of protest was sent to the Department by the National Aircraft Committee on 22 January. It was clear that either an Order must be issued embodying the agreement in full, or a compromise providing that the present normal working week in each establishment should continue.

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1 Hist. Rec./R./342/134/9.
2 L.R. 5581/14.
3 L.R. 5581/17.
4 The Clyde employers had protested against the 53 hours week as being an hour shorter than that of local engineering establishments.
The final decision was to exempt the engineering establishments in part from the operation of the order, by the insertion of a clause (5.B.) that:

"The allowances in respect to overtime and night shift shall not apply to establishments which prior to August, 1914, were recognised as engineering establishments, that is to say, which followed engineering practice and conditions. In such establishments, the allowances to be paid for overtime and night shift shall be those fixed by custom, in agreement between employers and Trade Unions, for men in the engineering trade."¹

Still the situation was not clear. Trade unions continued their opposition, in practice if not officially, to new schemes of payment by results. These they said (at a conference on 13 March at the Ministry of Munitions) were being "introduced surreptitiously" by individual agreements between employer and workmen in contravention of the primary trade union principle of solidarity.² The spirit of the workmen, said Mr. Wolfe, at this conference, was all against the agreement of 30 October. "We find that you actually interfere in some cases with existing systems, but much worse you violently oppose the introduction of fresh systems of payments by results." On the other hand, the National Aircraft Committee said that on 14 February a National Employers' Conference had decided that all aircraft factories should come under clause 5.B. quoted above. "Every aircraft establishment was claiming to be an engineering establishment," in order to avoid the shorter working week, and so was "deliberately causing trouble."

The order, however, had been formally issued on 8 February, and applied to some four hundred aircraft establishments.³ The basis of a settlement was there, and no Government Department could ensure its peaceable acceptance by compulsion. The double controversy over methods of payment and standardisation of conditions was carried on amid much overtime work, much unrest, but also a very great output of aircraft. Few industries can have passed through a more stormy period of adolescence than that of aircraft.⁴

¹ Order 187.
² L.R. 4914/30, of 1918
³ Hist. Rec./R./342/132.
⁴ Apart from the issue of the skilled aircraft order on 8 February, the appearance of aircraft manufacture as a separate industry was marked by a separate award from the Committee on Production on 18 March, 1918 (award 980). It had been part of the agreement of 30 October that in future aircraft workers should apply as a body for periodic advances in wages, and should not obtain them as part of the engineering, building trades, etc. This award, after a hearing of no less than twelve employers' associations and the National Aircraft Committee representing ten trade unions, (a) extended the 12½ per cent. and the 7½ per cent. bonus to aircraft workers on time or on systems of payment by results respectively, and (b) gave to workers in the majority of aircraft establishments the advance of 5s. per week from the beginning of December, 1917, already received as the third "national" advance by members of the engineering trades. This award was extended 11 June, 1918. (Award 1555) to semi-skilled and unskilled workers.
VIII. Departmental Policy, 1917-1918.

While the department did not undertake any organised campaign for payment by results, it must not be thought that its influence was negligible, or that the Wages Section had no opportunity of giving practical effect to its views. The provision in the Munitions of War Act (Section 4 (2),) under which any change in wages in a controlled establishment required the sanction of the Minister, was held by the Treasury Solicitor to cover changes in piece-rates.1 Very many changes were doubtless made without that sanction; the view was even expressed by an officer of the department in May, 1917, that the section referred only to time rates;2 but the existence of the rule acted as a check, and brought to the department a great many cases; it also enabled the department to interfere with effect when some disturbance, due to the unsatisfactory working of the scheme, brought to its notice a scheme which had not been submitted for sanction. The employers’ while protesting against a reminder that the rule existed, and objecting that it was practically impossible to await the concurrence of the department in changes that were taking place every hour of the day, admitted that they were not permitted to make such changes3 without that concurrence.

The submission of advances in time-rates for sanction was even more important. There were no doubts about the necessity of this, and the submission gave the Wages Section the opportunity of urging in cases they considered suitable, the substitution of some system of payment by results. The section had two aims before it in its decisions, first, to prevent any firm from “jumping” the standard rate under the pretext of granting some form of special bonus, and, second, to ensure that an advance should be adopted if possible to stimulate output. The variety and eccentricity of the bonuses proposed, afforded much scope for revision in the light of some such simple principles.

The department let it be known that it was in principle in favour of the adoption of payment by results, whenever this was practicable. Thus, when a protest against payment by results on the ground that such payments led to disputes was forwarded by a Lancashire Association of Brassfounders, Turners, Fitters and Coppersmiths, the department replied (6 June), that “in view of the vital necessity of increased output it favours the adoption of payment by results, and is of opinion that with proper machinery for discussion between employers and employed,” disputes should be avoided.4

In May, a circular letter was sent by the department to secretaries of district engineering employers’ associations, asking them how far methods of payment by results had been adopted in the engineering establishments of their district, and what extensions were possible.5 This was followed up by visits from officers of the department

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1 L.R. 139/185.  
2 L.R. 139/9.  
3 L.R. 5581, 17 July, 1917  
4 L.R. 1966.  
5 L.R. 3601, L.R. 1093.
(Mr. Murray and Mr. Nance Williams), to a number of districts, Manchester on 7 June; Leicester, 8 June; Nottingham, 12 June; so that the policy and method of introducing payment by results (especially among the difficult class of tool-room workers), could be discussed in detail. "Employers," it was reported, "were surprisingly ready to commend the piece-rates circular, and to desire that the fixing of rates should be negotiated between the parties and be based on consent" (as in the shipyard scheme). "If the workmen's claim to be recognised were granted, employers and employed could settle the rest, much preferably without outside interference. The Midlands are much further advanced than the North about piece-rates."\(^1\)

This gradual propaganda was making good headway, but was stopped towards the end of June by the recall of the two officers responsible. Mr. Wolfe shortly afterwards described the situation to Mr. Kellaway as follows:—

"A strong protest against the introduction of payment by results on a national scale has been entered by the unions. We have given an undertaking that we will not attempt this, and there is little doubt that what was done by the Admiralty Shipyard Labour Department in this respect, while perfectly justifiable and necessary, tended to create unrest. At the same time, particularly in aircraft, it is essential that some progress in this direction should be made, and we have found that by introducing payment by results quietly and locally, we have been able to accomplish a great deal. We have rather suspended work in this respect for the moment, and we shall be glad to have a decision to enable us to go forward."\(^2\)

IX. Departmental Policy, 1918.

The issue of the Skilled Time-workers' Order, giving a 12\(\frac{1}{2}\) per cent. advance, threw on the Wages Section an immense volume of work of application and interpretation.\(^3\) It also imposed on the section the necessity of renewing, or rather increasing, its efforts, by personal propaganda and assistance as well as through correspondence, to extend payment by results. The necessity arose from two causes. On the one side the workpeople, in many cases in which piece-rates or bonuses were not very remunerative, decided that the enhanced time-rates were preferable and demanded a reversion to time-work, while in other cases they demanded a revision of piece-rates or bonuses to maintain the relative advantage of their position over time-work.

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2. L.R. 139/204. Cf. *A.S.E. Journal*, July, 1917, p. 11. "A guarantee has been secured from the Ministry of Munitions not to press the demand for a general adoption of payment by results in all trades and districts." (Executive Council's report on negotiations re the Munitions of War Bill).
3. See below, Chap. VI.
The employers on their side had a new incentive to extend payment by results, since by so doing they would avoid the necessity of paying the 12½ per cent. and secure additional output for additional payment; even where economy in wages was not a sufficient motive employers were glad to avoid the invidious task of discriminating between one class of worker and another.

The Department used its influence to oppose any reversion to time-work and took the opportunity to install collective bonuses and substitute true bonuses on output, payment of which was contingent on and bore some relation to increase in output, for the fixed bonuses which had become common. Thus in the Manchester district, where there was great unrest among the lower paid piece-workers and among classes of skilled men who were excluded from the new bonus by reason of some small bonus on output, and in several cases where tool-room operatives were paid a fixed percentage over time-rates as "piece-time rates," an officer of the Department spent a good deal of time devising schemes of bonus on output, and, when the 7½ per cent. bonus to piece-workers made it necessary, revising these schemes. The schemes were generally entrusted to the supervision of a permanent bonus committee, representative of workpeople and management, whose function in supervising the scheme tended to stimulate interest in the production of the firm and to smooth over difficulties generally. The Manchester Engineering Employers' Association preferred straight piece-rates to collective bonus; but the workers were opposed to piece-rates in the tool-room. The Department had no strong prejudices either way, so long as the spread of fixed bonuses irrespective of output was stopped.

In the Midlands about the same time, it is noted, the Department endeavoured to use the grant of the 12½ per cent. to encourage the substitution of genuine output bonuses for the system of guaranteed percentage bonus that was becoming common in the district. They ruled that the existence of an "output bonus" with a guaranteed minimum of 25 per cent. was to be regarded as a fixed bonus such as disqualified for the 12½ per cent. bonus, and intimated that if the parties would substitute for this a bonus that rose and fell freely with the output, they would be regarded as qualified for the 7½ per cent.

The Department looked to the spread of output bonuses to secure for it an increased effort that would correspond with the increase in wages, which became inevitable when the leaving certificate was abolished and labour became free to exploit its opportunities. Collective bonuses were preferred, since they went some way towards meeting the worker's traditional objection to ordinary piece-rates and premium bonus. At the same time it was recognised that a satisfactory collective bonus was even more difficult to devise than individual piece-rates, and cases occurred of schemes being dropped at the end of an experimental period because they cost too much or yielded too little. "The drawing-up of a good bonus scheme," the Section Report points out, "is in

1 Wages Section Report, March, 1918.
2 Wages Section Report, April, 1918.
3 Wages Section Report, March, 1918. See below, Chap. VI.
realism a matter which would require weeks, if not months, of careful study, and it could hardly be expected that officers of the department in their hasty visits can be sufficiently acquainted with all the circumstances to design schemes with uniform success. It is remarkable how few employers have given serious thought to the question of stimulating output by methods of remuneration, and how few are capable of thinking out a successful scheme for themselves without assistance.\(^1\) In this, as in other departments of its work, either the functions of the Wages Section were too large or its staff was too small.

The problem which the Skilled Time-worker's Order was intended to solve was created by the extension of systems of payment by results to occupations and processes in which a reliable basis in experience for fixing rates or base times did not exist. Rates yielding abnormal earnings to workers of a slight degree of skill were the inevitable result of such an extension, and it was impossible to deal with the problem as it arose on account of the pledge to maintain piece-rates once fixed. The employers who had been so anxious to extend payment by results endeavoured to meet the problem by a further extension. Opposed to any extension of the Ministry's power to fix wages, which was the correlative, they considered, of the Ministry's duty to insist on dilution and should therefore be confined to the wages of "dilutees," and fearing the extension of any special bonus granted until it covered all time-workers, they sought to restrict the concession to workers who had had the opportunity of working on "some system of payment by results and had refused to take it." Mr. Wolfe pointed out that such a provision would be, in effect, to make payment by results compulsory, and the Ministry refused to force by an indirect means a policy it had deliberately rejected on its merits.\(^2\) When the propagandist work of the Wages Section was interrupted in July, 1917, the Department was beginning to consider the need of extending its statutory powers to fix the wages of skilled time-workers. The repeal of the leaving certificate section of the original Munitions of War Act, which had been decided on in June, made necessary some action to equalise the positions of the time-worker and the piece-worker. At this point the history of payment by results merges into the history of the 12\(\frac{1}{2}\) per cent. time-workers' bonus.

X. Some Questions of Principle.

(a) Methods of Payment by Results.

There remains for consideration the question of principle involved in the extension to new processes of payment by results, and the issues which the Ministry was called on to decide.

Payment by results may, and during the war did, take a great variety of forms. Whatever form it took the object was the same—to stimulate the worker to larger production by making his remuneration depend more or less directly on his output. Under any system

\(^1\) Wages Section Report for June, 1918.  
\(^2\) L.R. 139/193.
of remuneration, some relation between output and remuneration is assumed by the employer; but, whereas under time-rates the workman is assured of his hourly or weekly rate whatever the output resulting from his work, under payment by results his hourly or weekly earnings will fluctuate with his output. The applicability of payment by results obviously depends on the possibility of distinguishing the contributions of machinery and management, and of measuring and attributing to particular workmen the specific contribution of each. Where there is no difficulty in this, a price can be attached to each piece of work done, and the workman paid simply in proportion to the number of pieces done; this is the system of "straight piece-rates." But straight piece-rates are not always easy to adopt. The work of a group of men, or of all the workpeople in an establishment, may be so closely linked, that it is impossible to distinguish the specific contributions of each; some form of collective payment by results will then be the only alternative to time-rates. Or the work of an individual, although easily distinguished, may change frequently, so that it is difficult from want of experience to determine a piece-rate that shall at once offer an incentive to more than time-rate exertion without yielding a disproportionate reward to the increased exertion. The method by which this difficulty has been met has been to pay time-rates, and give a bonus on output supplementary to time-rates; the premium bonus system is a special variety of output bonus. Output bonus, like straight piece-rates, may be either individual or collective. These different systems may be explained in greater detail.

Straight piece-rates give satisfaction to both employers and workpeople where there is a large volume of work of a uniform and measurable character. The textile trades, and among munitions industries the boilermakers, normally work on a piece-list. The different classes of work have each their price; allowance is made for every variation in the operations performed; the "list" is established by collective bargaining for the district, or at least for a whole yard or factory; and no time-rates are guaranteed.

Where the work involves much repetition, but varies from worker to worker—so that uniform piece-rates cannot be negotiated for the whole establishment or the whole district—or the work changes frequently, to such an extent that the change involves the setting of a new price and cannot be met by a modification in the price for the previous job, there the system of output bonus is adopted. In ill-organised trades, it is true, straight piece-rates are employed; but where the trade union is strong, in such cases it either insists on time-rates alone, or makes a guarantee of the standard time-rate a condition of any system of payment by results.

(b) Premium Bonus System.

Of output bonus systems the premium bonus is the most interesting. Under this system a base-time is allowed for a job; then the worker is paid (a) his ordinary time-rate for the actual time he spends on the
job, and (b) a further sum if he completes the job in less than the base-time; this further sum consisting of a proportion of his time-rate calculated on the difference between the time spent and the time allowed. A common proportion is 50 per cent.; under this a man rated at a shilling an hour, who did in three hours a job that was timed to take five hours, would be paid 3s. for the time spent, plus 1s. ( = 50 per cent. of the time saved), or 4s. in all. The effect of this system depends mainly on the fixing of the base-time. If the base-time is simply the time actually required by an average worker at time-rate speed, then the worker, although he can increase his remuneration by increasing his output, does not increase his remuneration in proportion to his increased output. If the premium were 100 per cent., the system would be equivalent to straight piece-rate; if it is less than 100 per cent. it amounts to an automatic reduction of the piece-rate as the output is increased. If, however, the base-time, after careful calculation of the time actually required by an average worker at time-rate speed, were fixed at something above this actual time, then the average worker would be assured of a bonus even if he did not exceed his time-rate output, and a bonus on the time saved of less than 100 per cent. could be justified. The fixing of the base-time above the time actually required, would guarantee a rate of payment higher than ordinary time-rate on all output below the point at which bonus became payable, and the employer would recover what he paid for this by paying at a lower rate for any output in excess of normal.

The spread of the premium bonus system would seem however to be due, not to any exact calculation of probabilities of this kind, but to its superficial advantages to both parties. The workman is attracted by the possibilities of augmenting his earnings without apparently risking his time-rate. The advantage to the employer is that the method allows a margin for error in fixing the base-time or piece-rate; a slight error in calculating the base-time (the alteration of which could not be effected without trouble) is not so serious when the bonus payable on the time saved is only 50 per cent. of the worker's time-rate, while it might be serious if he were paid straight piece-rates. For the same reason the system does not give rise to variations in earnings as great and disconcerting as result from straight piece-rates in trades where the precise estimate of probable output is difficult.

A special variety of the premium bonus system acquired considerable favour during the war, probably because it was particularly effective in levelling down inequalities in earnings. This was the Rowan system. Under this system the bonus payable varies with the output, the formula being

\[ \text{bonus} = \frac{\text{time saved}}{\text{time allowed}} \times \text{time spent}. \]

In other words, hourly wages for the time spent are increased by 10 per cent. for every 10 per cent. saving on the time allowed. The object of the ordinary premium bonus system was to eliminate the necessity of cutting rates, by making it impossible for the workman to earn very much in excess of his hourly rate. This object the Rowan system
attains with much more certainty. Under it the workman can never earn double-time (since that would mean that he had saved all the time allowed, and done the job in no time); the bonus increases (though at a diminishing rate), until the time saved is half the time allowed, after which it decreases. If the time-rate basis be ignored, and the relation of payment to output alone be considered, it will be seen that there is justification for the description sometimes given of the Rowan system; "The rate automatically cuts itself."1

(c) Output Bonuses.

Another type of payment by results that may be mentioned is the differential piece-rate or bonus recommended by the advocates of scientific management. Under their system the timing of jobs is done with great care, the process being divided into unit operations and a time fixed for each of these; by this method a standard time or output which should be attained without difficulty by the normal worker following instructions is established. On Mr. F. W. Taylor's system, when this output is reached the worker is paid at a higher piece-rate; on later systems, which employ a modified form of premium bonus instead of piece-rates, the bonus jumps to a higher level at this point. The differential rate or bonus is intended to afford the stimulus necessary to induce the worker to bring his output or speed up to the pre-established standard; the workman usually regards it as an arbitrary interference with the fundamental principle that remuneration for uniform work should be at uniform rates.

Scientific management as a system has not been adopted widely in this country. The method of detailed time-study by which it finds a basis for wages has however, been applied in a good many cases to the fixing of base-times for premium bonus with good results; especially is the effect on relations good when the workpeople are given access to the materials on which a rate or base-time is fixed.2 The device of offering a special incentive to induce the workpeople to attain a given level of output is a common principle in output bonus schemes. If an output bonus varies directly with output, it is equivalent to straight piece-rates with a guaranteed time-wage. Usually, however, the bonus does not vary directly, being adopted for the very reason that a satisfactory basis for piece-rates cannot be devised, and in consequence output bonus schemes have usually an element of arbitrariness in them.

1 Abstract economic theory would seem to require that a bonus on additional output should not be at less than the hourly rate for normal output (as on all systems of premium bonus), but at a higher rate. The "disutility" of labour increases, so that increasing rewards would seem to be needed to overcome the disability. Examples of such increasing bonuses did occur during the war. (C.E. 488/4.) They were discontinued, because the high earnings of the workers under it caused discontent among the other workers in the firm.

2 Cf. testimony by the delegate of the A.S.E. to a Manchester firm which had adopted the methods of scientific management. (National Advisory Committee Minutes.)
The systems of payment by results reported to the Ministry of Munitions have been analysed by the Intelligence and Record Section.\(^1\) The output bonuses given are very numerous and based on a variety of principles. Some vary directly with output; the majority do not. The bonus in some cases increases as output increases, more frequently it decreases; sometimes the Rowan system was applied collectively. In many cases the bonus proceeds by a series of jumps, which may have been designed to lead the worker on from height to height in the curve of output. The variations are, however, frequently difficult to explain on any principle. While the bonus as a rule was a substitute for piece-rates, a bonus was in some cases given in addition to piece-rates as an incentive to reach a particular output, which, it was calculated, the factory should achieve. The bonuses were mainly "overhead" or collective bonuses; group, department, and works being taken as the unit in different cases.

The chief difficulties encountered were, first, to find a measure of output that would be fair both to the worker and to the firm; secondly, to establish a base time for the bonus that would provide an incentive to increased production without making it so easy to earn high wages that output was discouraged; and thirdly, to determine the basis of division among participants. To meet the first difficulty weight of output was sometimes adopted, but was satisfactory only in certain foundries; elsewhere, invoice value of product was taken, but this introduced into the problem of wages the factor of market fluctuations, and also subjected the worker's income to influences—ability of management and the like—over which he had no control; in other cases an attempt was made to estimate the relative importance of the firm's principal products, and allow a conventional value to each; or the bonus was made to depend on the relation between labour-cost and output value. It cannot, however, be said that any satisfactory basis, capable of general application, was discovered. The second difficulty was a difficulty that attached to all attempts to institute payment by results where there was little experience to go on. Just as individual piece-rates often yielded very large returns, so overhead bonuses often led to unexpected results. The third difficulty consisted in the difficulty of deciding the relative importance of different classes of workers in increasing a factory's output. On the one hand an overhead bonus had the advantage of enabling indirect producers—foremen, the important class of tool-makers, in one case sanctioned by the Ministry, welfare workers—to participate in the reward of increased production; on the other hand it was difficult to find a ratio of division which would satisfy the participants. Distribution in accordance with time-rate earnings was perhaps the most successful method.

In spite of the difficulties involved, collective output bonuses were widely adopted. This was due probably to two reasons: first, that an overhead bonus was possible where the unit of product was so large

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1 Completed and published when the section was transferred to the Ministry of Labour after the Armistice.
or the nature of the work so varied that individual payment by results was impracticable; and, secondly, that an overhead bonus did not give rise to the wide variations in earnings that individual bonuses or piece-rates did, where experience of fixing rates was limited and rates once fixed could not be cut. In addition it was claimed that an overhead bonus had a valuable influence in developing the team-spirit in a firm, and the directors of certain firms with successful systems pressed the claims of the overhead bonus as a remedy for the industrial unrest of the last eighteen months of the war.

The revision and sanctioning of output bonus schemes became an important and difficult part of the work of the Wages Section of the Ministry. The section encouraged collective bonuses, without insisting on them where individual bonuses or piece-rates were preferred. It endeavoured to insist that when a bonus was given at all it should afford a direct incentive to output, and not merely "jump" the district rate. It aimed also at separating output bonuses from timekeeping bonuses and other conditional grants, and, of course, at examining all complaints, and, if necessary, securing redress, when an individual thought that he was being deprived of some payment which was his due. The cases with which it had to deal under this head were one proof among many that simplicity and intelligibility are desirable features in any system of payment by results, a principle often ignored by production managers whose judgment was subtle rather than sound. Many of the systems in operation involved a great deal of clerical labour in the calculation of individual earnings, and the Department's officers, when advocating an output bonus, were on more than one occasion met by the reply that the firm could not afford the necessary clerical labour. Still greater was the difficulty in the shortage of men that marked the last year of the war, of introducing individual payment by results where there was any great variety of work.

(\textit{d}) Opposition of Trade Unions.

The attitude of the trade unions towards payment by results is indicated in the negotiations that have been summarised. It was one of opposition to any extension at the expense of time-rates. This opposition was grounded in the fear that the security of the wage-earner's income would be jeopardised by any departure from the simplicity of standard hourly rates, a fear that expressed itself in the main in three ways. In the first place it was believed that rate-cutting was the invariable sequel to the introduction of piece-work or premium bonus into a field hitherto occupied by time-work. The Government's pledge doubtless prevented any overt cutting of rates; but the introduction of a clause making it specifically illegal in the Amendment Act of 1917 is evidence that the pledge had not been sufficient, and the discussions over the Bill revealed the suspicions of the workers. While an overt cutting of rates might not be attempted, any modification in the means or method of production enabled the employer to re-open the question and led, the men believed,
to disproportionate cuts in the rate. The complexity of certain systems of payment by results, which the men did not understand, was a further cause of suspicion, and the premium bonus system, which withheld a portion of the return to increased output, and specially the Rowan system, which automatically reduced the return, gave further cause for fear.¹

Employers in the early months of the war admitted that rate-cutting had been practised and was a cause of restriction of output. Later, they protested against the hard and fast rule that no rate once fixed should be cut unless there was a substantial change in conditions of production, on the ground that many rates had been fixed on very limited experience, or taken direct from Woolwich, which turned out to be far more remunerative than could have been expected. The Department admitted the difficulty, and regularly urged the need of experimental periods before rates were finally fixed; but the difficulty arose from the nature of the work, and the rate-fixer's mistakes pointed either to a large measure of truth in the workman's contention that the work was not suitable for payment by results, or else for the need of some different machinery for price-fixing.

The fixing of rates was a constant source of difficulty. The rate-fixer was the employer's agent, and although nominally a rate represented a mutual agreement, the advantages of knowledge and experience were all on the side of the rate-fixer².

District price-lists, such as obtained in the textile industries or boiler-making, were impossible at first owing to the variety of the work; even shop-lists were usually impracticable; individual arrangements were the result. As the volume of repetition work increased, district lists might have been devised. In the case of shell and projectile factories some approach to uniformity was made, and payment by results worked without friction. But no systematic attempt to draw up district or national lists was made. It was felt increasingly by workmen, and admitted by some employers, that some joint

¹ It should however be stated that many instances were quoted before the Committee on Production of antagonism to the premium bonus system which disappeared after experience.

² The working of the system under good conditions, but still from the point of view of the management, with no approach to "joint control" was thus described to the Committee on Production by a representative of Messrs. Beadmore, of Glasgow, in a premium bonus case in December, 1916. "Whenever we have introduced the premium bonus system, we have a special staff told off for this work. They are men selected as far as possible from the craft over which they are fixing rates. They are selected with a very great deal of care as being highly efficient tradesmen with some slight knowledge of arithmetic, in fact men who have not allowed themselves to go rusty since they left school. They estimate the times that it would take a man of average ability to do a certain piece of work—not the time that the quickest man would take or the slowest, but just a man of average ability. To that is added 50 per cent. and that is the time given to the workman to work upon and it is termed the basis time. Whatever the man saves from this time he shares with the firm." There was, he explained, a right of appeal from the rate-fixer to the chief rate-fixer and thence to the manager; but this right was very rarely used.
system of fixing rates, by which employers and employed were represented equally, should be devised. This was proposed during the discussions of the piece-rates clause of the Munitions Act of 1917, but no such provision was inserted, owing to the opposition of employers. Both the men's and women's Trade Union Advisory Committees repeated the demand in 1918.

The fear that rates would be cut, the suspicion of complicated systems, the objection to existing methods of rate-fixing all sprang from a fundamental doubt whether standard rates, fixed by collective bargaining, could be maintained, if payment by results were permitted. Payment by results as practised in the engineering and aircraft industries cut across the practice of collective bargaining. Wages came to depend on a multitude of individual bargains, conditioned by innumerable variations in the kind of work, method and means of production, class of worker and the like. A guarantee of the standard time-rate, a definite arrangement that piece-rates or bonus times should be fixed to yield a definite percentage over time-rates, and care in the fixing of rates and times, might do much to conserve wages standards and remove the worker's fears; but these were not general, and, even if they had been, would have given no security that the fixing of wages by a multitude of individual arrangements would not have led sooner or later to a divergence of earnings, a breach in the solidarity of the group, and the disappearance of the district standard. Time-rates had the overwhelming advantage of simplicity.

The relation between piece-work earnings and time-rates where piece-work was in force went far to justify the workers' fears. No recognised proportion between piece-prices and time-rates was established in the country as a whole. Thus at Birmingham, shell machinists might be making double time, while the machine tool-workers on old established systems of piece-work earned barely time and a quarter. At Manchester a joint inquiry held by Mr. Mackenzie and Mr. Isaac Mitchell in February, 1917, after a disputed award of the Committee on Production, obtained the following returns for the earnings of some 9,000 piece-workers in the town:

<table>
<thead>
<tr>
<th>Men</th>
<th>Earnings above day rate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>530 men</td>
<td>12(\frac{1}{2}) per cent. and under.</td>
</tr>
<tr>
<td>2,087</td>
<td>12(\frac{1}{4}) to 25 per cent.</td>
</tr>
<tr>
<td>2,730</td>
<td>25 to 33(\frac{1}{4}) per cent.</td>
</tr>
<tr>
<td>1,567</td>
<td>over 33(\frac{1}{4}) per cent.</td>
</tr>
</tbody>
</table>

A considerable number of the last class were on exceptionally important, hard or laborious work—such as smithy workers, who were allowed in some districts, according to the Amalgamated Society of Engineers' representative, to earn up to double time. Rates were specially low among most of the "exceptionally capable employees"
of the machine tool firms in the city, and also among the older locomotive shops and the textile engineers. Piece-work rates had been fixed in these trades for many years, but had been gradually "nibbled at," so that the surplus, if any, above the time rate was "hardly worth raising a hand for." "I have known," said the same delegate, "machine tool firms, whose highly skilled men work five hundred hours to draw a balance of 5d. over and above their day ratings."

It was said that conditions were exceptional at Manchester; but experience in the older engineering shops of the Midlands did not predispose skilled workmen in favour of payment by results. Objections might also be due to the high time-rates accessible for some sorts of war-work (as at Coventry where many firms paid above the district rate). Thus it was said that at the firm of Crossley Motors, Manchester, where the men were paid at time and a quarter on day rate, they did not want piece-work without a guaranteed minimum greater than the district rate.

While fears for the standard rate were the important ground of opposition, there was frequent reference to other grounds. In the wood-working trades, where the handicraft tradition is perhaps stronger than in any other branch of great industry, it was argued that payment by results was inimical to good workmanship. Generally, there was a fear of undue speeding up which combined with the resentment at being forced or tempted to do inferior work to make some of the most

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1 Committee on Production Hearing, 11 April, 1917.
2 Ibid.
3 The following extract from the Journal of the Amalgamated Society of Carpenters and Joiners gives a further illustration of the grounds of opposition to the system. "We submit that employers who desire to have the best class of craftsmanship put into any kind of joinery work, never request joiners to adopt premium bonus and piece-work systems, because all men recognise that either... system inevitably leads to "rushing" and therefore necessarily "scamping" work, and consequently the demoralising effect in the long run hinders, instead of assisting, in increasing the output of the genuine craftsman's production. It is a well-known fact that much of the war-work produced on the premium bonus and piece-work systems has to be overhauled and rectified by men employed on the hourly system... It was during the year 1892 that our society decided to abolish piece work in our trade. Time has proved that the step then taken was in the interests of our craft as a whole, and we cannot now go back to the old position simply because a few employers have pleaded that they do not get the maximum amount of production under the present method of payment. We, as craftsmen, must recognise that the employer desires quantity—without any regard for quality—when he speaks about introducing premium bonus or piece-work, and we must see that, whilst giving of our best as regards output, quality of work must be maintained, not only in our own interests but also in the interests of those who pay for and receive the products of our handicraft." (Journal, February, 1917, pp. 104-105.) The writer was considering shipbuilding and housebuilding, but the same arguments were reiterated with regard to aircraft. When this argument was put before the Employers' Advisory Committee, Mr. Allan Smith pointed out that bad craftsmanship was just as possible on time-rates and that employers did not find it any more practicable to omit inspection under time-rates than under payment by results.
skilled workers resist payment by results.¹ And a great deal of trouble was due to an incident of the system, which it was hard to avoid when the unit of work was large. This was the system of deferred piece-work balances. If a man were starting on a job which would last as much as two or three months, and would undertake to do it for a lump sum, he would draw his weekly wage till the job was finished, and might at the end find, if he had misjudged his time originally, that he was in debt to his employer.

Trade union representatives before the Committee on Production referred bitterly to the system of debit balances, which might leave a man permanently in debt (£70 in one case quoted) to his firm.² Or a mistake might be made the other way. At one time relations were strained in a Manchester armament works because the management were trying to induce the workpeople in one department to refund £130 paid in excess on account of piece-work balances through an error of a wages clerk, while workpeople in other departments were claiming a balance of £946 as due to them.³ The model Wages Orders for women issued by the Ministry forbade the accretion of any debit balances.

(e) DIFFICULTIES OF SETTLING PIECE-RATES.

These objections, however, were incidental and could doubtless have been overcome, if the danger to collective bargaining and standard rates could have been removed; but that danger was inherent in the attempt to substitute payment by results for time-work. Time-work survived before the war in the main only where the work involved so frequent a change of product or method that a basis for payment by results was difficult to establish. The difficulty was one of measurement. Repetition work of a uniform character is easy of measurement, and experience makes it possible to adjust piece-prices so accurately that uniform remuneration for uniform effort is assured. In a textile piece-list all the factors that can influence output are set forth and allowance made for each. In engineering and most wood-work before the war there was no basis for such exact provision, and the worker

¹ The embittered statement by an A.S.E. representative before the Committee on Production, 11 April, 1917, illustrates the standpoint of the time-worker. "Ever since I can remember we have resented piece-work in the trade as it interferes with the technical ability of the man, because he is always more concerned about his prices than the real technical labour he is putting into his work... The piece-worker is the keenest watched man in the trade; he is watched for output. Special men are employed to stand over him and see that the production is really every item that it is possible for a human being to put out. The output of a piece-worker really represents a man's limit, and employers of labour realise that."... "We will say a man has put in his best work, and he knows what time a job is going to take under ordinary circumstances to produce; then he finds ways and means of increasing the rapidity of production by attaching things to his machine and so simplifies the method of production, and, after all, instead of being complimented and compensated for his genius, he is punished by his price being lowered. This is continually done; it is the general workshop rule."

² Committee on Production Hearing, 11 April, 1917.
³ Wages Section Report, April, 1918.
preferred the rough justice of time-rates, which were simple and could be upheld. Time-study, the resolution of complex processes into units, and the keeping of detailed records of jobs, might in time provide a basis for payment by results as exact as that embodied in a textile piece-list; but the empirical methods of the ordinary rate-fixer were as far removed as possible from anything of this sort; while the high rates in many cases fixed and the preference of employers for methods, like the Rowan system, which cover up the mistakes of the rate-fixer, are sufficient to show that the problem of measurement had not been solved. Even where the rate-fixing was scientific and an effort was made to allow for every factor that could influence output and earnings, the result was not satisfactory, because the process by which his wages were fixed became incomprehensible to the worker. He would need a professional expert agent to act for him, as the trade union official in the cotton industry acts for his members, and the area over which piece-lists or bonus times usually operate is hardly wide enough in engineering and wood-working industries to make the employment of specialised full-time officials for this work economical.

Even if the measurement of work had been achieved and the adjustment of prices to operations settled, the relatively frequent change of work complicated the problem. Payment by results on the whole caused little trouble in the case of the semi-skilled workers engaged on the routine repetition work connected with the shaping, assembling and filling of shells and shell parts. But skilled labour was too scarce to be left undisturbed at routine work; new rates had constantly to be fixed, and on occasion men had to be taken from remunerative piece-work and put on less remunerative but more important time-work. Such changes were difficult to effect, and the unions' claims to a joint settlement in each case, however difficult it might be to meet it in practice, was natural enough.

Allied to this difficulty was the difficulty of adjusting the wages of direct and indirect producers. Indirect producers (i.e. overlookers, setters-up, toolroom workers, general labourers) might do more than any other class to hold up or to accelerate the work of the plant; yet their work was usually of a nature hardly specialised enough, except in the largest plants, to permit of individual payment by results. The great advantage claimed for overhead bonuses was that it enabled the case of these workers to be met; but an increase in the time-rates of the more important of them was the device preferred by the Government when a decision could not be deferred. An overhead bonus to indirect producers, whether based on the output of the factory as a whole or on the piece-work balances of direct producers or on the total earnings or the output of direct producers—and all these methods were tried—had the defect that it made their remuneration dependent, not directly on their own efforts which it is the main object of payment by results to effect, but on the efforts of someone else.\(^1\)

\(^1\) A case, detected and stopped by the Department, may be worth noting, where a rate-fixer's bonus rose with the piece-work balances of the direct producers under him until these reached 25 per cent. of their time-ratings, but declined if their balances went above 25 per cent. C.E. 5172/4.
The trade union attitude towards payment by results during the war was consistent with its attitude before the war. It has been noted above that it is by no means the normal policy of unions to object to payment by results; many recognise it, and some insist on it. The attitude and policy of the unions depend on the nature and condition of the work. If the work is of a uniform and measurable character, so that a piece-list will ensure uniform remuneration for uniform effort, trade union policy will be directed to framing standard piece-lists; where the work involves a frequent change of product and method and piece-rates could be arranged only by a multitude of individual bargains, trade union policy will be directed to establishing and maintaining standard time-rates. In both cases the object is the same—the establishment of a uniform rate for the labour of the members, and the protection of it by collective bargaining. It happened that the Ministry of Munitions was brought most into contact with unions that preferred time-work; but that was because the engineering and woodworking trades, with which it had most to do, were, before the war, trades in which repetition work on a large scale was still the exception. The war resulted in a great extension of this kind of work, and the unions, especially the woodworking unions, in opposing a corresponding extension of payment by results were adhering to the letter and neglecting the spirit of their own principle. The employers' unqualified insistence on the need for payment by results provoked and in part excused their attitude.

(f) Policy of the Department.

The situation then with which the Ministry of Munitions found itself faced in 1916, was one in which no policy would have avoided provoking dissatisfaction in some quarter. The change in the character of work in the engineering and woodworking trades made an extension of payment by results possible, while the growing shortage of labour in relation to the country's needs made it desirable. But payment by results was disliked by the workpeople, and regarded with suspicion by the unions in the trades in which the extension of it was most desired, and the attempt to secure formal agreement to it on the part of the trade union officials and executives, as agreement had been secured to dilution and the suspension of the right to strike, failed. Nevertheless, a great extension of payment by results was secured by the activity of employers, who had the sympathy and support of the department; the new repetition work was done mainly on some system of payment by results, and some extension of the principle was achieved even with the more skilled and varied operations.

The result showed that something more was needed than employers' propaganda, departmental support, and even trade union approval, if the new methods of remuneration were to prove a success. The piece-lists of the textile industries, the tonnage rates of coal and iron trades, the collective agreements in the printing and boot and shoe industries, are the outcome of a generation or more of experiment. They represent, therefore, an exact adjustment of remuneration to
work, which ensures a fair uniformity of remuneration and, while permitting exceptional industry or skill to earn exceptional wages, does not exaggerate individual differences, and allows no opening for the irrational, unjustified and disconcerting variations that follow inevitably from careless and inexperienced setting of piece-rates. In the engineering and woodworking trades there were few established piece-lists, and the work to which payment by results was extended during the war was much of it new or conducted under conditions so novel that previous experience was misleading. Even if all the conditions had been favourable to the introduction of payment by results in these trades—and the contemporary problems created by dilution, the rise in the cost of living and the increasing pressure of war demands made the conditions as unfavourable as they well could be—the task would still have been more difficult than in any of the old-established piece-work trades, because the work was so much more various.

Gradually a policy was shaped that embodied the experience of the best employers, and met many of the difficulties of the situation. At Barrow, after a strike due to the alleged cutting of rates, a successful scheme of control by a joint committee met some of the difficulties of rate-fixing. The same principle was applied elsewhere, and was approved in principle by both unions and employers. Local agreements of the engineering trades contained a provision that time-rates should be guaranteed. The Ministry’s Women’s Wages Orders, issued after prolonged consultations with employers and unions, carried the systematisation of payment by results still further. The Wages Section’s power to require controlled establishments to submit all changes in wages for its sanction, became an important factor in the control of methods of remuneration as the class of controlled establishments grew in number. The section and the Ministry’s local officials were also able to exercise a considerable influence by their advice. The policy of the Department, therefore, as expressed in the views of the section, may be taken as summing up the experience of the war. The points insisted on were that there should be an experimental period before rates were fixed, and the pledge to maintain rates became operative, that time-rates should be guaranteed, that there should be some definite relation between piece-rates and time-rates, and that rates should be settled by full and sincere consent. The last was the most important point; the exact machinery did not matter so long as the workman was placed in a position to insist on his right to an equal voice in the determination of his rate; the complete fulfilment of the condition, however, would have required a drastic revision of the organisation and methods of his union.

These conditions were not fulfilled when the extension of payment by results began. The full effects of inexperience were felt, and the Government’s pledge to prevent cutting of rates deprived employers of

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1 e.g. At the Phoenix Dynamo Company, Bradford (L.R. 3254/15).
2 Cf. Employers’ Advisory Committee Minutes (L.R. 5581).
3 Cf. L.R. 139/40.
their usual resource in covering a mistake. The high earnings of piece-workers represented so many mistakes in rate-fixing. If rates were not to be cut—and everyone agreed, when the pledge to prevent this was given, that the pledge was necessary—the old relations between the earnings of different grades of workpeople were bound to be upset. In the old-established piece-work industries like cotton, the relations between the earnings of different grades are as stable as in time-work industries. In the engineering trades by the middle of 1917, the extension of payment by results had relatively degraded the most skilled workers with the paradoxical result that the most essential work was the worst paid. The problem of the skilled time-worker was the inevitable outcome of the hasty extension of payment by results in time-work trades, and was only the most striking instance of a general dislocation of normal relations between the different classes and grades of worker. When allowance is made for the influence on production of the resentment, the friction and the unrest that this dislocation led to, a very serious debit must be placed against the increase in production that payment by results produced.
CHAPTER VI.

TIME WAGES AND THE "SKILLED TIME-WORKER" PROBLEM.

I. The Origin of the Problem.

The economic position of the skilled time-worker had become a problem before the Labour Department of the Ministry began its work in 1915. The great opportunities for repetition work afforded by munitions contracts enabled piece-workers to earn very considerably more than the more highly skilled time-workers, or than the "responsible" semi-skilled workers or labourers—enginemen, crane-drivers, etc.—who could not, if they wished, be placed on piece-work. Various complaints on this score reached the Department and the Committee on Production in the later months of 1915.

The enquiry into shell piece-rates at the beginning of 1916 referred to in a previous chapter was suggested by an application from the Wolseley Motor Company, Birmingham, for leave to change its piece-rates. The firm stated that "semi-skilled men on shells earn £4 10s. a week; skilled men are getting from the toolroom into the shell factory among the semi-skilled, in order to earn the same wages."

Discontent among skilled workmen was reported periodically to the Department, especially from Sheffield, Birmingham and Coventry. The Cabinet's "embargo" on a rise of wages in the early portion of 1916, and the Committee on Production's refusal of a series of applications for advances from skilled engineers increased the time-workers' sense of injury.

On 1 March, a deputation from skilled day-workers at Sheffield waited on Dr. Addison, and explained the difficulty of their position and the need that they, who taught new-comers their work, should have increased rates. The average earnings of the skilled workers at Sheffield were a few months later, according to the Amalgamated Society of Engineers' representative at a hearing of the Committee on Production, £3 a week, whereas those of the semi-skilled workers (till lately "gardeners and coachmen") were at least £6. Dr. Addison

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1 C.E. 1074/4.
3 See Chap. III.
4 Committee on Production Hearing, 9 August, 1916, on the claim of the Sheffield skilled engineers for an advance of 10s. a week. (The employers admitted the disparity of earnings between the two groups of workers, but as Sheffield had already the highest weekly rate (46s.) for fitters and turners in the country except in London, and as the cost of munitions had to be kept down, they could suggest no special remedy. The average earnings including much overtime were in May, 1916 in five local firms as follows:—

<table>
<thead>
<tr>
<th>Fitters</th>
<th>Turners</th>
<th>Slotters and Planers</th>
</tr>
</thead>
<tbody>
<tr>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
</tr>
<tr>
<td>3 12 0</td>
<td>3 6 0</td>
<td>3 0 5</td>
</tr>
<tr>
<td>2 17 9</td>
<td>3 13 0</td>
<td>2 18 0</td>
</tr>
<tr>
<td>3 7 0</td>
<td>3 11 8</td>
<td>3 6 0</td>
</tr>
<tr>
<td>4 1 0</td>
<td>3 15 9</td>
<td>3 0 9</td>
</tr>
<tr>
<td>3 17 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
promised this deputation (the nucleus of a local organisation which asserted itself with much force subsequently) to appoint a small committee to visit Sheffield and go into the points raised by skilled day-workers and generally into the position with regard to dilution at Sheffield. This committee's report showed chiefly the complexity of the question and the need to deal with the time-workers' position nationally if at all.

From Coventry complaints turned on the position of the tool-room men, whose discontent at the higher earnings of piece-workers was affected, but not appeased, by the very different wages paid to their skilled workmen by different firms in their anxiety to attract and retain labour. In March and April two officers of the Wages Section (Mr. S. R. Davis and Mr. J. Murray) visited Coventry, "with a view to discovering if possible some means of standardising and stabilising the rates for this class of labour," and obtained statements of the actual rates paid. They subsequently visited Birmingham and other munition centres. The results of these enquiries were not very great. The Department was able to persuade a certain number of firms to experiment in granting a bonus on output to their tool-room workers. A few tried to introduce piece-work into their tool-rooms, but the great majority found this impracticable. The mechanics in National Projectile Factories were so far as possible placed on systems of bonus on output, as these factories began work in the summer of 1916. Apart from this, the Coventry workers secured in June an advance of 12½ per cent. on their pre-war weekly rating of 38s.

In July the Committee on Production inaugurated its second cycle of advances, and gave an increase of 3s. a week to time-workers and premium bonus workers. Piece-workers received no advance. To some extent these awards improved the relative position of the time-workers, and employers, while vigorously opposing further advances to piece-workers, admitted before the Committee on Production that there was some justification for an advance on the grounds of cost of living to those on time-work. As the Amalgamated Society of Engineers' branches, however, were claiming 10s. a week advance for their members at the time, much discontent was expressed among the time-workers at the smallness of the results secured by arbitration.

The next general advance gave only 5s. a week in April, 1917, and both this advance and the two succeeding advances in 1917 applied equally to time and piece-workers. The 3s. awards of the late summer of 1916, therefore, represented, apart from extra payments for setting up, etc., or for teaching unskilled workers, the only relative gain of time-workers compared with piece-workers until late in 1917.

1 Wages Section Reports, 3 and 18 March, and 1 April, 1916.
2 A.S.E. Journal, September, October, November, 1916. October, 1916, page 32, Sheffield delegate's report. "A meeting has been held to consider the position of the day workers after the award of 3s. by the Committee on Production. After considerable discussion and great dissatisfaction at the smallness of the amount granted, it was decided to accept same for the present, but that an immediate demand should be placed for the balance of 7s. per week of our original demand of 10s. Resolutions were also passed calling upon the Government to take drastic steps to reduce the price of food-stuffs."
One result of their lower earnings was that tool-room workers were ready to work for very long hours (up to 80 or 90 a week on occasion) for at least the first two years of the war. The desire of the skilled workers to earn by overtime and Sunday work was given by various firms as a reason for not curtailing long hours, when this was proposed during the summer of 1916.

II. Statutory Power to deal with the Problem.

The negotiations that led to the 1917 Amendment Act have been described in Chapter II. The disturbed industrial conditions of 1917 gave a new importance and urgency to the problem of the skilled time-worker. The Commission on Industrial Unrest, appointed after the engineering strikes in the spring, was instructed, in the terms of reference drawn up by Mr. Barnes, to enquire among other things into the alleged grievances of the skilled time-worker. Seven out of eight of the local Commissions set up under the main Commission recorded the opinion that the skilled time-worker’s economic disadvantage was a fruitful cause of discontent; three of them recommended some supplementary payment to the skilled time-worker. The trade union representatives consulted in the negotiations over the Bill had also drawn attention to the grievance. Much more prominent, however, both in the Commission’s reports and in the discussions over the Bill, was the objection to the leaving certificate system. As has been explained above, the Ministry anticipated some of the recommendations of the Commission before they were published. It had decided to abolish the leaving certificate as part of the bargain embodied in the Amendment Bill, and the Department was carefully considering methods of meeting the time-worker’s grievance. The findings of the Commission, however, constituted a weighty additional argument for the change. They formulated the munition worker’s grievance with authority, and they were popularly taken to pledge the Government to action. Thus, when the members of the Amalgamated Society of Engineers rejected the proposed Bill, it was politically impracticable to maintain the leaving certificate, and the decision to abolish it was included by Mr. Barnes in his summary of the action taken to give effect to the Commission’s recommendations, in the daily press, on 23 August.

Mr. Churchill, therefore, on assuming the Office of Minister of Munitions, found himself committed to action on the skilled time-workers’ claims. The decision to abolish leaving certificates had been taken by the Cabinet, and the Ministry of Munitions was forced to devise some safeguard against a general movement of skilled men to less skilled but more remunerative piece-work, when they recovered their freedom to move. The first clause of the revised Bill was the safeguard adopted.

1 Vol. V. Part III, p. 101. 2 Chap. II, Sect. 5. 3 See above, p. 53. 4 Cf. Minute by Mr. Kellaway in reply to memorandum by the chief officers of the Labour Department protesting against the abolition. See above, p. 53. 5 See above, Chap. II, Sect. 6.
Mr. Churchill made it quite clear in conferences and in Parliament that this was the object of the powers taken by the new Act.¹

"There is another step which ought to be taken before the leaving certificates can be repealed. The swiftly developing conditions of labour during this war have led to the creation of great and invidious anomalies. We have seen—and there are numerous instances of it all over the country—highly skilled men, who have taught the others, working under time rates, at comparatively low wages, and who see side by side with them, in the same shop, newcomers whose skill, such as it is, has been hasty acquired, and who, on repetition work, and on non-repetition work, are earning wages far in excess of those paid to the skilled men. Let the Committee realise the seriousness of this. Supposing the leaving certificate provisions were abolished, while this anomaly remained unredressed, I am advised—and I believe I am rightly advised—that it might lead to a serious migration from the higher ranks of labour into the less highly skilled, though more highly paid, forms of labour."

General approval was expressed by the few speakers who took part in the debate on the committee stage of the Bill, Major J. W. Hills, who as chairman of the West Midland Commission into Industrial Unrest had heard many complaints about wages from the Birmingham district, in particular supporting the proposal.²

There was no debate on the proposed clause, which appeared as Section 1 of the Munitions of War Act issued six days later (21 August) in the following form.

"(1) If at any time during the continuance of the present war the Minister of Munitions considers it necessary, in order to maintain the output of munitions, that directions should be given with respect to the remuneration to be paid for work (being munitions work or work in connection therewith or work in any controlled establishment) which at the time when the directions are given is paid at time rates, he may, subject always and without prejudice to any agreement made between employers and workmen with the consent of the Minister with respect to the remuneration of such work, by order give such directions with respect to the remuneration of such work as he may consider necessary for the purpose of the maintenance or increase of output.

"(2) Any contravention of or non-compliance with any such directions shall be punishable in like manner as if the order in which the directions are contained was an award made in settlement of a difference under Part I of the Munitions of War Act, 1915, but where a difference has arisen respecting matters on which the Minister of Munitions has given directions under this section the difference shall be referred to a special arbitration tribunal

¹ Parliamentary Debates, 1917 (H. of C.), XCVII, 1305.
² Parliamentary Debates, 1917 (H. of C.), XCVII, 1316.
constituted under section eight of the Munitions of War (Amendment) Act, 1916.

"(3) Any directions given under this section may be varied from to time, but shall not continue in force after the termination of the present war."

Section 2 of the same Act gave powers to the Minister to repeal Section 7 of the Act of 1915, and measures were accordingly taken to withdraw the leaving certificate regulations from 17 October, 1917. This made it imperative to take action rapidly under Section 1.

While no criticism of the time-workers clause was made while the Act was passing through Parliament, the Employers' Advisory Committee protested against the Ministry's proposals when consulted by the Ministry in the six weeks during which the Act was under consideration. On 6 July they urged that great industrial unrest would be caused by the difficulty of determining what time-workers were to be entitled to an extra rate proportionate to the earnings of piece-workers, and that a new rate would be required for every kind of worker in the Kingdom. On 17 July the committee returned to the subject. The employers' representatives would not offer any counter-proposals to those of the Ministry, beyond suggesting the reference of the question to the Committee on Production, leaving employers to deal with separate cases. Both Mr. Allan Smith and Mr. Marjoribanks (secretary and president of the Engineering Employers' Federation) pointed out that any regulation would affect practically all time-workers, skilled and unskilled. The necessity in the interests of output of limiting any bonus to men who had not had the opportunity of going on to some system of payment by results, and the impossibility of confining a time-workers' bonus to highly-skilled men, were urged at a further conference on 10 August. A draft clause embodying the employers' views was submitted to the Minister on 14 August, and considered by him in conference with his advisers on the same day.

The Department, however, as has been explained, could not accept the attachment of compulsory payment by results to its proposal for the improvement of the time-workers' position.

1 The management committee of the Engineering Employers' Federation expressed their views on the first draft of the time-workers clause to the following effect:

"The committee desire me to say that in their view much of the difficulty which has arisen is due to the inflated earnings of piece-workers, brought about by the refusal of the Minister to alter piece-work prices or premium bonus basis times, arranged under stress of circumstances, and manifestly unreasonable. As to the proposed clause, my committee are of the opinion that on the understanding that the Ministry have decided that some such powers are necessary to enable them to deal with difficulties which have arisen and which they anticipate will be accentuated with the repeal of section seven of the Munitions of War Act of 1915, the responsibility of any such action as is contemplated should rest on the Ministry." (L.R. 5581/4.)


3 See above, p. 58.
III. The Skilled Dayworkers' Committee.

(a) The Committee's Problem.

On 4 August, while clause 1 of the Amendment Bill was under discussion, Mr. Churchill appointed a representative committee with the following terms of reference:

"To enquire into and report upon the rates of skilled men on munition work employed on day rates, with special reference to the discrepancy between such rates and the earnings of less skilled men engaged under systems of payment by results, and the possible effect of this discrepancy in view of the decision to abolish the provisions of the Munitions Acts dealing with leaving certificates, with due regard to the public interest both in the matter of expense and of increasing the output of munitions of war."

The committee consisted of Major J. W. Hills, M.P. (chairman), four representatives of employers' organisations, four representatives of trade unions and four official representatives, two from the Ministry of Munitions and one each from the Shipyard Labour Department of the Admiralty and the Ministry of Labour. Mr. John Murray, of the Labour Regulation Department of the Ministry of Munitions, was secretary. The committee assembled at 6, Whitehall Gardens on 27 August, and met on nine subsequent occasions, for about forty hours in all. No verbatim record of the discussions was kept. The question before the committee was one which implied measurement both of the numbers affected by the grievance and of the degree of improvement to their pay required as a remedy for the discrepancy in earnings. Unfortunately, the statistical information available in the Department was meagre and inadequate. The committee did not summon witnesses, and no comprehensive or detailed returns were procured showing the earnings of time-workers and piece-workers or numbers of workers in different categories. The committee's proceedings resolved themselves into a consideration of claims and counter-claims.

The obvious problems before the committee were to define:

1. The class of workers to whom the proposed advance should apply,
2. the extent of the advance,
3. the conditions, if any, to be attached to the bonus.

These three problems came up at once for decision.²

(b) Proposals Submitted.

The first proposals were submitted by the employers, through Mr. Allan Smith, on 28 August. As in the negotiations over the Amendment Bill in July, they proposed to make it a governing condition that men who were given the opportunity by their employers of working on a system of payment by results, and who refused, should not participate in the proposed bonus. Subject to this condition, skilled men

² Memo. by Major J. W. Hills. (Copy in Hist. Rec./R./342/10.)
employed on time in shops where manufacturing was done mainly on systems of payment by results were to receive the following bonuses in addition to time-rates:—

Gauge makers, while employed finishing gauges;  
\( i.e., \) beyond 0'002 of accuracy  
2d. per hour.

Jig makers  
2d. per hour.

Cutting tool makers while employed finishing tools;  
\( i.e., \) beyond 0'002 of accuracy  
1½d. per hour.

Inspection, Examiners and Gaugers  
1½d. per hour.

Markers off  
1½d. per hour.

Charge hands  
1d. per hour in addition to usual Charge hand allowance.

Setters-up (others than those engaged on shell fuses, etc.)  
from 2s. 6d. per week according to the number of machines under their charge and the skill and amount of supervision and teaching of workpeople required.

Skilled men engaged in maintenance and repair of plant and machinery and in the production of light, heat and power  
1d. per hour in addition to any special shop allowance.

Semi-skilled and unskilled men on day work who were working as regular and constant assistants to skilled men on a system of payment by results, should receive a portion of the bonus earned on the job proportionate to their day rate; other skilled men on time-work, no bonus. The proposals did not apply to shipyards.

The trade union representatives strongly opposed these proposals. They claimed instead a general advance of 20s. a week on time rates to all time-workers, skilled and unskilled, and that the position of the skilled piece-worker not employed on repetition work should also be considered. This was essential if the shifting of labour after the abolition of leaving certificates was to be avoided.

On the following day the representatives of the Department submitted an alternative memorandum, insisting with less rigidity on the alternative of payment by results, and substituting an even percentage of 10 per cent. advance on earnings to the same classes of workpeople, in place of the previous more elaborate scheme.

"It is considered," they said, "that any advice that is tendered to the Minister in accordance with the terms of reference to the Committee, must not discourage but must encourage by every possible means the stimulation of the increase in output, and therefore some system of payment by results should be adopted wherever practicable, with the introduction of such safeguards as may be agreed between the parties concerned.

"That any proposals that may be made should be limited to the skilled men in accordance with the original terms of reference."

They proposed to extend the bonus to skilled men employed in the maintenance and repair of plant and machinery, and in the production of light, heat and power, and to give a bonus of 5 per cent. to workpeople in the selected categories when employed in shops engaged
wholly on time-work, in which the discrepancy in earnings was practically non-existent. They suggested that the committee should also consider the desirability of a general advance to all skilled time-workers, and expressed the opinion that the stimulation of output referred to in the terms of reference could be achieved only by some system of payment by results.

To this also the trade union representatives took exception, repudiating any association of payment by results with the problem of the time-worker.

"In reply to the memorandum of the Ministry of Munitions representatives," they wrote, "we cannot accept the view that the purpose for which this committee was constituted, has anything to do with Payment by Results, and we therefore protest against any attempt to use this Committee in order to enforce the general adoption of payments by results. We hold that the question of any change in the methods of remuneration must be dealt with locally as at present, by District agreement, and we believe that negotiations on this matter would be most effectively carried on through Trade Union workshop committees acting under the authority of the District Committee."

The trade unionists recommended an advance of 20 per cent. on their day rate to the class of workers for whom the official representatives had proposed 10 per cent., and 15 per cent. to those for whom the official representatives had proposed 5 per cent.; and they added that "all other classes of skilled time-workers should receive a special advance of 15 per cent. on the same terms."

Further detailed proposals were made by either side, on the days immediately following. The employers, however, in a revised version of their first draft, insisted on a clause to the effect that the 5 per cent. and 10 per cent. bonus which they now proposed "should not apply in cases where workmen had been given the opportunity of working on a system of payment by results." The trade union representatives on 4 September refused to discuss any detailed proposals so long as this clause remained part of the employers' proposals. The employers' representatives refused to withdraw the clause, regarding it as a fundamental condition. It was decided, therefore, that the chairman should see the Minister, taking with him the amended form of the proposals of both sides, with a view to resolving the deadlock.1

The official representatives in an accompanying memorandum urged that the Trade Union Advisory Committee should be consulted with regard to the "payment by results" stipulation, and that if the provision was dropped any advance given to day-workers should be substantially less than the 25 per cent. above time-rates normally earned as a minimum by piece-workers.2

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1 This interim report, with the final memoranda submitted by the two sides, together with that of the official members, is printed in Appendix V.
2 See Appendix V, p. 253.
(e) The Department's View.

In acknowledging Major Hills' report, Mr. Churchill noted that it was proposed that the State should bear the cost of any bonus, and asked for an estimate. Mr. Larke submitted an estimate to the chairman, which gave the cost of the employers' proposals as £3,200,000 per annum (or £4,643,000 if certain classes of workpeople affected; the employers' proposals were found to be ambiguous in detail when examined critically, and it would be necessary for the committee to formulate its proposals in more definite terms. He found the number of male munition workers, as shown by the returns of the Munitions Area Recruiting Offices, was about 2,500,000. A census of 23,000 firms, to whom war-service badges were issued in December, 1917, showed a proportion of skilled men of 56 per cent., and a return from controlled establishments, in July, 1917, of 52 per cent., or roughly half; but the employers' representatives in the committee advised that this proportion should be discounted by a third, in order to allow for the tendency of employers, who were interested in returning as many men as possible as skilled, to include as skilled anyone who could not be replaced by a substitute with three to six months' training. In round numbers, therefore, there would be 800,000 skilled men. Of these the committee estimated that half were on some system of payment by results, leaving 400,000 as the number of skilled day-workers. The average earnings of these was taken as £3 7s. a week: 15 per cent. on this gave the cost of the trade union proposals. The cost of the much more restricted and detailed proposals of the employers was reached by taking each category separately and estimating the numbers in it and their average earnings.

On receiving the committee's interim report Mr. Churchill referred it to "L" committee (the Ministry's Labour Committee, of which Sir Charles Ellis was at the time chairman). In a covering minute, on 6 September, he asked this committee to make an independent estimate of the cost involved, and summarised his view of the problem.

"There is an admitted case of grievance and injustice in the disparity of wages between time-rate workers and semi-skilled piece-rate workers, which it is desirable in itself to remedy if the State or the employer, or both, can afford it. When it was decided to abolish the leaving certificate, it was strongly felt that the mitigation of this anomaly should, in the interests of the Government and of national output, precede such abolition; and we therefore delayed the abolition of the leaving certificate until we could take the necessary steps to improve the wages of the skilled time-rate workers . . . I consider, therefore, that we are morally bound to improve the rates of the skilled time-worker. I do

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1 For the discussion of the committee's proposals by the Ministry see L.R. 5997/5.
not consider that we are bound to equalise them with those of the piece-worker. The amount of improvement must be decided with reference to the interests of the State, as it is clear that the Treasury and the Cabinet have the final word. It is evident that the interest of the State in making such an advance will be powerfully affected by the possibility of obtaining an increased output, and if a large expenditure of money is required without achieving any special advance in this direction, the State would not be gainers except in regard to the greater contentment afforded. I am beginning to be rather sceptical of the degree of the danger which was so strongly impressed upon me, that there would be a violent movement from skilled to semi-skilled labour if the leaving certificates were removed while the wage anomaly remained unmodified.

The departmental committee, on 8 September, endorsed the estimates of cost submitted by Major Hills, deferred any suggestions as to the form any advance should take, and advised on the point at issue that the advance should not be limited by the conditions the employers proposed. Mr. Churchill accordingly, on 15 September, replied to Major Hills that "the employers' suggestion that the advances proposed should not apply in cases where workmen had been given the opportunity of working on a system of payment by results, should not be adopted." The Committee was desired to make fresh recommendations to the Minister on this basis.

The committee met again on 20 September. The employers' representatives protested that "in the interests not only of increased output, but even of the maintenance of output, the principle contained in clause 7 of their proposals was fundamental. This did not provide that work should be done on payment by results. It simply provided that if the workmen would not by increased output on suitable work increase his earnings, he should not receive consideration." They therefore refused to sign the final recommendations of the committee; these were based on proposals worked out by the chairman, and were signed by the official and trade union members of the committee, with the exception of Mr. I. H. Mitchell, and were dispatched to the Minister on 22 September.

The report offered the following answers to the triple problem presented to it at the outset:

1. It recommended the inclusion of a limited class of skilled engineers on time-work, excluding those engaged on shipbuilding.
2. It recommended an advance ranging from 10 per cent. to 15 per cent. on earnings.
3. It refused to attach to the bonus any conditions as to alternative methods of payment.

Mr. Barnes, with whom Major Hills discussed the report on 22 September, expressed his approval, and promised to recommend the Cabinet to accept it.

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1 The Report is printed in Appendix V, p. 254.
IV. Adoption of the 12½% Bonus.

(a) Consideration by the Minister and the Department.

The recommendations of the Hills' Committee were in the main adopted, but not until they had been considered in detail and modified both by the Ministry of Munitions and by the War Cabinet. There was no time for further deliberate consideration, since the pledge to abolish leaving certificates could not be deferred; on the other hand, premature decision might prejudice the Government's policy on other wages questions. An additional difficulty was the necessity of ascertaining the views and securing the consent of a number of independent Departments and other authorities. An attempt had been made to anticipate this difficulty by making the Hills' Committee representative; but the employers' and trade union representatives had failed to agree, while the adhesion of the other Departments concerned, the Admiralty and the Ministry of Labour, had not been fully secured. The representative of the Admiralty Shipyards Labour Department did indeed sign the report, but, as afterwards appeared, his signature did not carry with it the full concurrence of that department. The Ministry of Labour representative neither signed the report nor indicated dissent.

The issue was clarified somewhat by an inter-departmental conference on 8 October; but it was re-discussed ab initio at the Cabinet meeting of 12 October, and the decision of the conference of 8 October was reversed by the Cabinet committee to whom the final decision was left.

Mr. Churchill, on receiving the final report of Major Hills' Committee, referred it to the departmental committee of the Ministry of Munitions for advice. The great inherent difficulty in the recommendations was apparent—where to draw the line in granting an advance. The committee emphasized the indefinitely wide character of the proposals and the slippery slope down which they beckoned.

"The primary difficulty really centres round the impossibility of defining what is a skilled man. The committee feel that the problem which the Ministry originally endeavoured to solve was to adjust a bonus in such a way as:—

(a) to prevent the highly-skilled worker from leaving his work and going to better paid piece-work on repetition machines when section 7 is abolished, and

(b) to remedy the sense of injustice felt by the skilled man at the inadequate reward which he receives for his high degree of skill.

"The Committee are in considerable difficulty in view of the recommendation of Major Hills' Committee that the bonus should extend to all skilled men. It is felt that this extension goes much beyond the limits of either of the problems which it was originally intended to solve by this order as set out above. In addition, if the advances are so extended, the Committee feel that it will appear

1 Proceedings of Inter-departmental Conference, 8 October (L.R.5997/5).
that the Ministry are usurping the authority of the Committee on Production, as such extension would amount to a general rise of wages for all skilled time-workers in the engineering trades, such as Coppersmiths, Sheet Metal Workers, Foundrymen, etc.

"Further, the Committee have had impressed upon them that a similar demand is almost certain to be made by semi-skilled men employed on time-work in munitions, and that it would be very difficult to resist in the long run a general 15 per cent. increase of wages for all time-workers employed on munitions. If it is admitted that this wide extension is undesirable, it remains to be determined at what point a line should be drawn."

They therefore submitted two alternatives to the Minister; one, known as schedule A, a narrower scheme making an advance of 15 per cent. on time-rates, and confining it to tool-room, supervising and maintenance classes; the other, schedule B, proposing 12½ per cent. and extending it to all the classes covered by the Hills Committee proposals and also moulders. The reason for including moulders was that they worked in close conjunction with engineers and usually had their wages regulated with those of engineers.

They strongly recommended Schedule "A." 1 It may be noted that the Wages Section of the Ministry had, on 21 September, while objecting to the bonus as unnecessary, urged that if it were granted it should be restricted to a narrow range of carefully defined occupations.

Mr. Churchill again asked for estimates of cost. The committee replied that a narrower schedule "A" would cover approximately 165,000 men and cost £3,765,000 a year, the wider schedule "B" 250,000 men and £5,700,000; if ship yard and iron and steel workers as well as engineering were included, the numbers would be 315,000 and 400,000 respectively, and the costs £6,565,000 and £8,500,000. Mr. Churchill discussed the alternatives with the committee and Major Hills, and decided provisionally in favour of the limited schedule. A draft order was accordingly prepared, but the schedule was recast, after informal discussion with employers and trade union representatives, to include only those who by the nature of their occupation were prevented from working on a system of payment by results. As recast the schedule, referred to as schedule "C," covered approximately 207,500 men, and would cost £5,440,000 per annum.

Before coming to a final decision, Mr. Churchill decided to confer on the matter with the Ministry of Labour and Mr. Barnes. The conference was held on 8 October. In addition to Mr. Churchill and other representatives of the Ministry of Munitions there were present Mr. Barnes, Major Hills, Sir David Shackleton (representing the Ministry of Labour), and Sir Lynden Macasley and Mr. McElroy (representing the Shipyard Labour Department of the Admiralty). Mr. Barnes raised the preliminary point, that any advance ought to be first approved by the Committee on Production; Mr. Churchill objected that this would cause delay and dislocation and was not necessary in the case of

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1 Cf. also memorandum of L. Committee's views printed in Appendix V, p. 255.
schedule C, which confined the advance to certain definitely limited special classes. Major Hills urged the adoption of the wider schedule B; but the sense of the meeting was strongly in favour of the narrower schedule. Mr. Churchill said he would have preferred a general output bonus, but the general opinion was that this was impracticable, and he decided to bring schedule C before the Cabinet.

(b) Departmental Differences and the Cabinet Decision.

Strong objection to the proposal was made by the Director of Shipyard Labour, Sir Lynden Macassey, in a memorandum to the Controller of the Navy, which was submitted to the Cabinet. The order would not, he argued, effect its object, since it would not remove the disparity between the earnings of skilled time-workers and semi-skilled piece-workers. It would extend to all classes of skilled men, in shipbuilding as in engineering, and would check the extension of payment by results, which the Admiralty had been successful in effecting. It introduced two novel principles; first, a percentage wage advance "based not on the cost of living, but on a purely arbitrary percentage which cannot be tested on any economic grounds"; this would undermine seriously the practice and procedure of the Committee on Production; and, second, the principle that the day-rates of men not working piece-work speed should approximately equal piece-work earnings. As an alternative policy he suggested bringing skilled time-workers under some form of shop output bonus1. The possibility of intruding on the province of the Committee on Production had been considered by Mr. Barnes; he decided it was not an objection, since the Minister of Munitions would be regulating wages in agreement with munition workers by statutory authority, while the Committee on Production dealt with wages only when a difference had arisen and arbitration was necessary. Sir David Harrel, the Chairman of the Committee on Production, however, objected that the Order would disturb existing wages relations; that an accurate differentiation of the workers to be covered would be difficult, so that the bonus would tend to spread; and that there would be confusion between this advance made by the Minister of Munitions' authority and the awards made by the Committee on Production. Already on 13 October, in a memorandum summarising his view, he suggested that it would be necessary for the Committee on Production to give all munition workers the 12½ per cent.2

The proposal was discussed at a Cabinet meeting on 12 October.3 Mr. Churchill explained the necessity of the proposal and the objection to using it to force an extension of payment by results. Sir Lynden Macassey repeated his objections. Sir David Shackleton urged that the proposal interfered with the relative position of piece-workers and time-workers. As such it raised pre-war controversies which hitherto

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1 An extract from this memorandum will be found in Appendix V, p. 256; L.R. 5997/22.
2 L.R. 5997/11.
3 Hist. Rec./R./342/11.
the Ministry of Labour and the Committee on Production had refused to admit to consideration. Piece-workers would demand the restoration of the pre-war relation between their earnings and those of time-workers. Further, there were anomalies among piece-work earnings, and it would be impossible to resist the demand for revision of these. Sir George Askwith endorsed Sir David Shackleton’s opinions. Mr. Churchill replied that no alternative proposal for dealing with the admitted grievance of the skilled time-worker had been put forward, and that the Admiralty and Ministry of Labour representatives had raised no objections on the Hills Committee. Mr. Barnes said that it was not proposed to help a single man who was likely to be put on piece-work.

The War Cabinet was impressed with the differences of opinion, but felt that it was impossible to disappoint the expectations raised. They referred the matter to Lord Milner and Mr. Barnes, who consulted the Departments concerned and the Chairman of the Committee on Production the same afternoon, and decided in favour of the wider Schedule B. The Cabinet thus confirmed the finding of the Hills Committee, and over-rode the decision to confine the advance to a limited schedule of occupations in which payment by results was impracticable, reached by the Ministry of Munitions’ Labour Committee, and supported by its officers, by the Minister himself, and by the inter-departmental conference held on 8 October. Lord Milner and Mr. Barnes were influenced by the Chairman of the Committee on Production, who advocated the wider schedule as a means of forestalling probable further demands, and who was supported by Sir David Shackleton. The decision was:

"That fully qualified skilled time-workers in the engineering and foundry trades should be granted an increase of 12½ per cent. upon their weekly earnings, provided that their wages equalled or exceeded the district time-rate payable to fitters and turners. Such increase to commence in the first full week after the 14 October, 1917. This increase shall not apply to men with upstanding wage or salary covering overtime."

Mr. Churchill concurred in this decision. The order embodying it (1061) was issued on 13 October, and on 15 October leaving certificates were abolished.

V. Reception of the Bonus.

(a) Demands from Excluded Time-Workers.

The Skilled Time-workers (Engineers and Moulders) Wages Order, contained the following provisions:

(1) A bonus of 12½ per cent. on earnings was to be paid to fully qualified skilled engineers and moulders rated at or above the current district time-rate for turners or fitters while employed on or in connection with munitions work and paid at plain time rates.
(2) The term "plain time rates" excluded all the many forms of bonus in use at the time, except (i) a time-keeping bonus, (ii) a bonus (not being a bonus on output) less favourable to such workmen than the bonus payable under these directions, in which case the existing bonus should merge in the bonus payable under these directions, (iii) a war advance given to meet the cost of living as the result of or in conformity with arbitration under Part I of the Munitions of War Act, 1915.

(3) This bonus was not to affect time-rates, nor the basis of determining any system of payment by results.

(4) The bonus did not apply to "workmen paid an upstanding wage or salary which covers overtime or other allowances," i.e. it excluded foremen, etc.

(5) The order was applied only to workmen whose wages it "was the practice to regulate by the movements of wages in the engineering and foundry trades." Thus it was sent to engineering works, primarily, while the engineers employed in other factories, e.g., in collieries and railway workshops, did not gain thereby.

The fears that it would be difficult to restrict it within its intended scope were quickly justified. In quick succession demands for inclusion came from border-line crafts in the engineering and foundry trades, from semi-skilled and unskilled time-workers, from allied industries such as iron and steel and aircraft, from branches of included industries not engaged on munitions such as agricultural machinery, and from piece-workers. In the end the bonus or its equivalent was extended to all, but reluctantly, and only after successive attempts to draw a line short of such comprehension.

Four days after the order was issued the Chairman of the Engineering Employers' Federation attended the Labour Committee of the Ministry to ask for a definition of the term "fully qualified engineer." He suggested apprenticeship as the differentia with a definite schedule of employment, including viewing and gauging when performed by skilled men. Logically the scope of the order could be very much extended and he suggested that unskilled time-workers might later receive an advance of perhaps 10 per cent.¹ The committee decided that no alteration in the scope should be made, claims being left to the Committee on Production to deal with: but it appointed a sub-committee to draw up an interpretative list of occupations based on circular W.M.V.33.² This list included men paid at or above the current district time-rate for fitters and turners in the following trades:—blacksmith, borer, core-maker, fitter, gauge-maker, gear-cutter, grinder, hardener and temperer, jig maker, miller, mill-wright, moulder, patternmaker, planer, shaper, slotter, toolmaker, toolsmith, turner. Also skilled men employed in the following capacities whose trade was one of those specified above:—charge-hand, draughtsman,

¹ L.R. 5997/2. ² L.R. 5997/13.
examiner, foreman, gauger, inspector, marker off, rate-fixer, setter-up, viewer. It will be noted that at least two occupations normally classed as "semi-skilled," namely planers and slotters, were included in this list. The statement based on it was sanctioned by the Minister on 22 October.

The issue of the order at once excited unrest among excluded workers. On 25 October, it was reported that a large number of the representatives of the 47 unions attending a Committee on Production hearing of an engineering claim had expressed profound dissatisfaction with the order and anticipated a general strike. The Ministry's local representative in Sheffield reported mass meetings of unskilled workmen to demand the 12½ per cent., and said that the shop stewards, who had been organising for months with a view to such an opportunity, were encouraging the unrest. A stoppage was threatened at Nottingham unless the advance was extended to boiler-makers and coremakers.¹

(b) Extension to Semi-skilled and Unskilled Workers and to Shipyards.

It was thought that the prompt enforcement of the order might still secure its object; arrangements were made for the administrative handling of the problems raised; and a press notice was issued on 27 October, explaining that the order was not a general wages order, but directed to remedying the skilled man's grievance alone; general advances were the province of the Committee on Production.² The difficulties of application and the demands for extension were, however, too great.

Three questions presented themselves:

(a) Should men not strictly engineers but allied (e.g., plumbers, sheet metal workers, boiler-makers) be covered?

(b) Should the order be modified to include all men on time-work who were skilled in their own trade (such as smiths, strikers, fettlers, core-makers and machinists) whether in receipt of the fitter's or turner's rate or not?

(c) Should it be extended to semi-skilled and unskilled workers?

In connection with the first of these, the Admiralty had to be considered, since at least as many men in some of the classes named were employed in shipbuilding and ship-repairing as in engineering establishments. To give these classes the bonus when employed in engineering shops would make it practically impossible for the Admiralty to exclude them when employed in shipbuilding and ship-repairing. The Admiralty were convinced that if these men had an advance, so must all the skilled men in shipyards, including shipwrights and joiners. Then it would be difficult to exclude joiners in engineering establishments, and then all skilled men throughout the engineering trade.

¹ L.R. 5997/10.
² L.R. 5997/12, 23, 24.
The semi-skilled and unskilled workers claimed the bonus on the ground that, first, they were absolutely essential to production, secondly, they had been seriously affected by the increased production due to the war, in that they had to work with piece-workers at higher pressure and often with less staff than before, thirdly, they had been penalised as against new comers who had been placed on repetition work, and, finally, they had been neglected at the time of the Minister’s pledge to skilled workers inasmuch as they had not, despite their representations, been consulted.

Their unions had not resisted piece-work or payment by results, but their special trades could not be placed on piece-work.

The following trades therefore, claimed inclusion under the bonus scheme (at an estimated annual cost of £4,500,000 for 300,000 workmen)—crane-drivers, slingers, boilermen, enginemen, some classes of electrical workers, beltmens and oilers, progress clerks, foremen’s clerks, men in stores and warehouses, bogeymen, iron and steel dressers, core-makers, foundry labourers, smith’s strikers and hammermen, woodworkers and others. They pressed these claims in a deputation to the Ministry on 10 November.

The Labour Committee recommended the immediate extension of the bonus to the “border-line” cases, and the securing of the Cabinet’s consent to an extension to all other time-workers over 18, skilled or unskilled, engaged on munitions work in the engineering, foundry and shipbuilding industries. The estimated cost was £750,000 to cover 40,000 time-workers, like coremakers and dressers, who claimed to be skilled but did not come under the existing order, and £6,500,000 to cover 562,750 semi-skilled and unskilled time-workers.

The grievance to be remedied, Sir Charles Ellis noted in forwarding these recommendations to the Minister on 17 November, was no longer a skilled man’s, but a time-worker’s grievance.

Before the Cabinet considered the matter a conference was held, at Lord Milner’s request, of the Departments interested—the Ministry of Munitions, the Ministry of Labour, the Admiralty—to consider the bearing of the problem on an award of 5s. a week just made by the Committee on Production to the engineering and foundry unions. It was recognised that the 12½ per cent. or its equivalent would have to be extended to all time-workers in engineering and ship-building, that the Committee on Production award would have to be extended to shipbuilding, and that the Committee in making its award had not taken into consideration the fact that it would prove necessary to extend the 12½ per cent. bonus to all time-workers. The representatives of the Ministry of Labour and the Admiralty thought that the bonus and award should be merged in a single advance; and the Admiralty proposed an advance of 7s. to skilled and 5s. to unskilled time-workers in preference to a percentage bonus, because it would be cheaper to extend such a bonus to piece-workers. The Ministry of

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1 Boiler-makers, armature-winders, coppersmiths, plumbers, sheet-metal-workers, brass finishers.
Munitions on the other hand contended that the 12¾ per cent. had been given as an unconditional bonus, and that its purpose would be negativied if it were merged in a general advance for all workers.

A further conference, at which employers were present, considered that the bonus must be extended to all time-workers on munitions in the engineering, foundry and ship-building industries, but that piece-workers’ claims could be met by an adjustment of unfavourable rates and prices.

The Cabinet accepted this view on 21 November; Lord Milner and Mr. Barnes saw the representatives of the General Labour Unions the same day and announced the concession to them. The order embodying the decision was issued on 11 December.

VI. The Cabinet Committee on the Bonus.

At the time of the Cabinet decision on the first grant of the 12¾ per cent., attention was called to the lack of co-ordination between different departments in dealing with labour claims. After the decision to extend the advance at the meeting on 27 November, a Cabinet Labour Committee was set up under the Chairmanship of Mr. Barnes, to act as a general co-ordinating committee for labour questions. To it was referred the interpretation of the existing 12½ per cent. order, the drawing up of the order extending the bonus to semi-skilled and unskilled time-workers, and the question of the piece-workers’ claims. The committee reported on 24 December, that the original order had started a wide-spread agitation which now involved the Government in the necessity of paying the 12½ per cent. or its equivalent to all classes of workpeople, or of facing wide-spread strikes. They would have preferred announcing that the bonus was a mistake and withdrawing the order, but they were informed that such a course was not considered practicable for political reasons. They therefore put forward a proposal drafted for them by a sub-committee representative of the Ministry of Munitions, Ministry of Labour, and engineering and shipbuilding employers. This was that piece-workers should be given a guarantee that their earnings should be made up in cases of deficiency to 12½ per cent. over time rates, that no further orders giving the 12½ per cent. should be made but all future general alterations in wages be submitted to the Ministry of Labour for remission to a re-inforced Committee on Production, and that an appeal be made to employers and workpeople to maintain and extend payment by results. The administrative difficulties of applying the 12½ per cent. order had simultaneously convinced the officers of the Ministry of Munitions of the need of some modification of policy. Claims were coming in not only from munition workers, but from makers of agricultural and textile machinery (which, not being munitions, did not come within the scope of the Minister’s statutory powers), other munitions industries such as iron and steel, and from piece-workers. Mr. Wolfe in a memorandum on 15 December, recommended as the only course now practicable the withdrawal of the 12½ per

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1 Hist. Rec./R./342/11.  
cent. orders on the ground that employers and unions had not accepted the principle of strict limitation on which they were based, and the conversion of the 5s. award first given by the Committee on Production into 12s. The head of the Wages Section, Mr. Campbell, a little later explained the difficulties of the department. The ordinary work of sanctioning advances had been greatly increased since leaving certificates were abolished, and men could demand advances under threat of leaving. The extension of the Coal Controller's award meant additional work. The 12½ per cent. bonus made such a further addition that effective control by the department over wages had practically ceased. The first 12½ per cent. order might have been administered if it had been accepted by masters and men in the spirit in which it was intended; unfortunately the intention to remedy one grievance had been seized on as an invitation to demand remedies for many other grievances. The extension of the bonus had led to further demands, the concession of which merely defeated the original intention of the bonus. The result was general unrest, an unexpected situation which the section had not the staff to deal with: nor could the attitude of the Government, acting through the War Cabinet Labour Committee, on the many technical questions at issue, be sufficiently well defined to give the section the guidance it needed. He advocated withdrawing the orders and increasing the Committee on Production award to 12s., and then throwing back on to employers and trade unions the responsibility for dealing with wage anomalies by setting up joint wage boards in all trades. The Government, which paid practically all wages, could then indicate how far it was prepared to go, the Committee on Production would decide when a variation was necessary on the ground of change in cost of living, the joint boards would advise on the allocation of advances to particular grades and classes, and the Ministry would enforce their decisions. In subsequent memoranda (26 December and 1 January), he thought it would be necessary to extend the bonus to all time-workers on munitions, to press employers to revise piece-rates by local negotiations, and to deal with the iron and steel and aircraft industries by special trade conferences.

The Minister himself was of the opinion that it was possible to limit the advance by speeding up the application to the classes originally intended, and negotiating agreements in trade conferences where claims to it were pressed. An indiscriminate bonus would be unfortunate; the right policy was to plough through the difficulties in detail day by day. Piece-rates should be dealt with by local arrangement between employers and trade unions. In a memorandum urging this course on the Cabinet, Mr. Churchill insisted on his statutory responsibilities and powers, which could not be exercised by the Cabinet Labour Committee; he asked for authority to extend the bonus to the remaining time-workers in the munitions industries at an estimated

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2 Hist. Rec./R./342/134.
cost of £8,000,000, and to negotiate settlements with outlying trades, especially iron and steel, building and aircraft.

To sum up, if the withdrawal of the 12\(\frac{1}{2}\) per cent. orders was impossible for political reasons, two alternative policies were possible. One was that of the Minister of Munitions to persist in the original policy of the orders, extend the bonus to all time-workers in munitions work, adjust piece-work earnings where they were inadequate, using trade conferences to determine details, but to refuse any general advance. The other was that of the Cabinet Labour Committee and the Ministry of Labour, to extend the bonus generally, merging it in an ordinary advance, and so restoring the wages relations that had preceded the issue of the 12\(\frac{1}{2}\) per cent. orders, and restore to the Committee on Production exclusively the task of dealing with claims for general changes in wages.

The War Cabinet adopted both alternatives almost simultaneously. It gave the Minister of Munitions the authority he requested almost in the form he suggested. He was authorised to negotiate a settlement within the following general limits:—

1 extension of the 12\(\frac{1}{2}\) per cent. bonus to all men in the engineering and foundry trades, including outliers;
2 settlement of any claims arising from the extension under (1), made in the chemical and building industries;
3 calling of conferences in the iron and steel trades and the aircraft woodwork industry, in order to discuss wage anomalies and devise remedies.

But the Cabinet also the following week on 7 January decided to extend the bonus to piece-workers, substituting at the same time the Ministry of Labour for the divided authority of the Ministry of Munitions and Cabinet Labour Committee as the authority for dealing with all claims arising from the 12\(\frac{1}{2}\) per cent. bonus.

VII. The Spread of the Bonus.

(a) Extension to Time-Workers in Other Industries.

The settlement with the aircraft industry is described elsewhere.\(^1\) The negotiations with the iron and steel industry arose out of a claim by the Iron and Steel Trades Confederation, which was rendered urgent by a series of unofficial strikes in Sheffield and elsewhere. A conference was held on 3 January when a settlement was reached on the following lines:—

1 That the Conciliation Boards, or the Employers in the case of Iron and Steel establishments not governed by such Boards, be informed that for plain time-workers employed in direct connection with the production of iron or steel, including those whose wages are governed by sliding scales, a bonus shall be negotiated on the following lines:—

\(^1\) See above, p. 149.
(a) To workers who have received not more than 20s. war advance—the equivalent of $12\frac{1}{2}$ per cent. on earnings.

(b) To workers who have received over 20s. war advance—sufficient to produce an equivalent to the 20s. plus the $12\frac{1}{2}$ per cent. on earnings; that is to say, that in the case of workers who have received war advances in excess of 20s. such excess shall merge in the $12\frac{1}{2}$ per cent. on earnings.

(c) Workmen who have received the equivalent of 20s. war advance plus $12\frac{1}{2}$ per cent. on earnings, or more, are not affected by this settlement.

In calculating whether 20s. has been received, it shall be taken as 20s. for the normal week in the engineering department in the establishment, or in the absence of such engineering department, in the town or district.

(2) In respect of work done in an establishment both by plain time-workers and time-workers partly paid by results, the Conciliation Board, or the Employers, as the case may be, shall take into account any adjustment required to secure equitable treatment of the latter.

(3) As regards tonnage workers' helpers working as plain time-workers the Conciliation Board or the Employers shall consider and in conjunction with the workers' representatives agree how the bonus to which they are entitled under this settlement shall be paid.

(4) That in the case of workers whose wages are governed by sliding scales, advances accruing under the scales after the date of this settlement shall be merged in any advance arising out of this settlement.

(5) This settlement will operate as from the beginning of the first full pay next after 13 October, 1917.

(6) Agreements arrived at in accordance with these lines of settlement are subject to confirmation by the Ministry of Munitions.

(7) Any difficulty arising as to the meaning of the foregoing clauses or as to the carrying into effect of the principles thereof shall be referred to and settled by the Ministry of Munitions.

A settlement on similar lines was made with a number of allied metal trades:—nut and bolt, brass founding, bridge and constructional engineering, hollow-ware, springs, hot stampings, tubes, and wagon building. A pressing claim for the bonus from workers in electricity generating stations and sub-stations was settled by Sir George Askwith under authority from the War Cabinet.

(b) Extension to Piece-Workers.

The decision to merge the bonus in a general advance was made on 7 January and confirmed on 23 January. At the former meeting the Cabinet had under consideration two questions; what authority should administer the bonus, and whether the bonus should be extended to
piece-workers. Mr. Churchill urged that a single Department should
have the administration instead of a Cabinet Committee, and that no
general extension should be made; trade settlements should be
negotiated in which particular classes of piece-workers were covered.
If, however, a general extension were made he would prefer that the
Ministry of Labour take all responsibility over from his Department.
Against this it was urged that a settlement now with piece-workers
could be made by conceding 7s. a week, a saving of 2s. 6d. a week a
head, while if a settlement were delayed longer it would be necessary
to grant 12½ per cent. to all piece-workers.

The War Cabinet decided that:

(1) "All applications for an increase in war advances and wage
disputes arising therefrom shall be referred for decision to the
Ministry of Labour, who may refer them to the Committee on
Production.

The Ministry of Labour will have discretion to ask the depart-
ment concerned to carry on any necessary negotiations, but the
final decision will in all cases rest with the Ministry of Labour.

(2) "In deciding all claims for 12½ per cent. bonus or its
equivalent the adjudicating authority shall work within the limits
and on the lines laid down by the following formula:—General
formula for maximum concession for the settlement of the 12½
per cent. question.

(i) To plain time-workers included in the concession:

(a) To workers who have received not more than 20s. war
advance—the equivalent of 12½ per cent. on
earnings.

(b) To workers who have received over 20s. war advance—
sufficient to produce an equivalent to the 20s. plus
the 12½ per cent. on earnings; that is to say,
that in the case of workers who have received war
advances in excess of 20s. such excess shall merge
in the 12½ per cent. on earnings.

(c) Workmen who have received the equivalent of 20s.
war advance plus 12½ per cent. on earnings, or more,
are not affected by this settlement.

(ii) To premium bonus workers included in the concession—7s.
on existing war advances.

(iii) To piece-workers included in the concession—7s. on existing
war advances, or its equivalent in piece rates.

(iv) Any settlement under (ii) or (iii) shall be on the clear un-
derstanding that no one shall by the receipt of this concession
in addition to previous war advances, receive more than
12½ per cent. on his present earnings, or 27s. as a total
war advance, whichever is the less.

(v) In all cases where war advances have been given otherwise
than by the Committee on Production or similar award,
re-adjustment must be made within the above limits.
(3) "The co-ordinating Committee on Labour Disputes should be replaced by the Ministry of Labour after dealing with any outstanding business.

(4) "Mr. Barnes should have full powers to decide on behalf of the War Cabinet in cases referred to him by the Ministry of Labour, bringing to the War Cabinet at his discretion only cases of extreme urgency or difficulty.

(5) "No proclamation should at present be made, but when a suitable opportunity occurred the Prime Minister might make a public statement on the general labour policy of the Government." 

The substitution of the Ministry of Labour was announced in the press on 11 January. The decision to extend the bonus to piece-workers was not announced. On the contrary the announcement stated that the Minister of Labour proposed to deal with applications on the lines of a resolution passed by the Ministry of Munitions Trade Union Advisory Committee, viz:— that the $12\frac{1}{8}$ per cent. should be extended to cover time-workers who had not yet received it in the shipbuilding and munitions trades, but that so far as piece-workers in these trades were concerned no $12\frac{1}{8}$ per cent. should be given, but low piece-prices be revised and employers informed that this was the decision of the Government. The actual procedure would be by reference to arbitration under Part I and Schedule I of the Munitions of War Act, 1915. The decision to extend the bonus to piece-workers was, however, definite; the Ministry of Labour was considering methods, and, as a result of their advice, Mr. Barnes suggested at the Cabinet Meeting on 21 January that a percentage bonus of $7\frac{3}{4}$ per cent. be substituted for the flat rate of 7s. a week, as being easier to administer and a little cheaper. It was thought that the stimulus to output would more than justify the cost of the bonus, and the Cabinet approved Mr. Barnes' proposal.

Mr. Churchill's advisers had protested against the Cabinet's decision to extend the bonus as soon as it was made. Mr. Churchill shared their view and took the occasion of the change in the form of the extension to raise the matter again. He circulated for the Cabinet Meeting of 23 January a memorandum by himself and a joint memorandum by Sir Stephenson Kent, Sir Thomas Munro and Mr. Wolfe. In the former he warned the Cabinet against the $7\frac{1}{2}$ per cent. as unnecessary and expensive. "There is no excuse for shirking the laborious and practical business of insisting on the revision of low piece-rates and dealing with exceptional cases on their merits." The Department had succeeded in spite of interference in dealing with the $12\frac{1}{2}$ per cent. They had given away only £1,000,000 in the last three months' negotiations, and had not yet applied the whole of the £14,000,000 authorised in November. It would be absurd to pay an increase to large classes of workers who at piece-rates were earning upwards of £5 per week, in some cases up to £25 a week, and to make such an advance in the form of a percentage would be to leave the grievance of the low-rate piece-worker practically and relatively unredressed. If it were extended to piece-workers generally the women

1 L.R. 5997/79.
would be dragged in, which in turn would involve the extension of the 12\(\frac{1}{2}\) per cent. to women. He offered to take back the whole problem from the Ministry of Labour and Committee on Production and wind it up. If his offer were refused, it would be necessary for him to give Parliament a full account and correct the impression left by Mr. Barnes’ speech\(^1\).

The memorandum by Sir Stephenson Kent and his colleagues stated at length the objection to the proposed extension, and laid particular emphasis on the danger of starting a new “vicious circle” by depriving the skilled time-worker of the relative improvement in his position given by the 12\(\frac{1}{2}\) per cent.\(^2\)

The Cabinet, however, confirmed its previous decision. It was argued that delay had made it impossible to resist, so many cases had accumulated; the extension would assist payment by results; in any case it was impracticable to undertake a revision of piece-rates.

The new bonus was announced in the press on 24 January in the following terms:

(1) “The 12\(\frac{1}{2}\) per cent. has been given, under existing orders and extensions thereof made by the Admiralty and the Ministry of Munitions, to workmen employed on munitions work (as defined in the Munitions of War Acts) and paid as plain time workers in engineering shops, boiler shops, foundries, ship-building and ship-repairing establishments, iron and steel trades, electricity generating stations and electrical contracting trades, nut and bolt trades, brass foundries and brass works, bridge-building and constructional engineering, hollow-ware trade, spring making works, hot stamping works, tube works, and wagon building works.

(2) “As from the beginning of the first full pay week which followed 1 January, 1918, a bonus of 7\(\frac{1}{2}\) per cent. on their earnings shall be paid to all workmen of 21 years of age and over employed in establishments or trades (other than the iron and steel trades) covered by the existing Orders relating to plain time workers or extensions thereof, and engaged on munitions work as defined in the Munitions of War Acts who are piece-workers or are paid on a premium bonus system or any mixed system of time and piece or any system of payment by results including men working at augmented time rates fixed in lieu of piece-rates or by reference to results or to output of work.

(3) “The 7\(\frac{1}{2}\) per cent. bonus shall be paid as an addition to any other bonus or war advances payable to the man concerned under any agreements or awards. Provided that any bonus

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\(^1\) Mr. Barnes at Glasgow had accused Mr. Churchill of “butting in” with the 12\(\frac{1}{2}\) per cent. into the difficult task of adjusting wages to cost of living. He explained away his utterance in Parliament on the next day.

\(^2\) L.R. 15726.
or war advance which in the case of timeworkers has merged in the 12½ per cent. shall merge in the 7½ per cent. and that no workman shall receive the 7½ per cent. bonus who has already received in some other form some equivalent consideration for the 12½ per cent. bonus. In any case where payment has been made to workmen pending the general consideration by the Government of the position of men paid by results, the amount of such payment shall merge in the 7½ per cent. bonus now authorised and such bonus shall as from this date be in lieu of and in substitution for any such other payment."

The extension to piece-workers in iron and steel was left over for a special conference. It was also stated that future claims would be referred through the Ministry of Labour to the Committee on Production. This was made legally possible by the nomination of the members of the Committee as a special tribunal under Section 8 of the 1916 Act.

VIII. Conversion to a General Advance.

(a) Procedure in Making Awards.

The day the press notice appeared the secretary of the Engineering Employers' Federation wrote to ask by what statutory authority the bonus to piece-workers was granted.¹

The Ministry of Labour had apparently assumed that the Order could be made under Section 1 of the 1917 Amendment Act; that section, however, only gave to the Minister of Munitions power to regulate the wages of time-workers. A similar question might have been asked about the award made by Sir George Askwith on 7 January, of the 12½ per cent. for certain classes of electrical workers "under authority given" him "by the War Cabinet." The Engineering Employers' Federation did not press their question, a fact which illustrates the extent to which wages had become a question between wage-earners and the Government, with employers acting merely as agents of the Government. Under the procedure, however, adopted by the Ministry of Labour of referring claims as differences under Part I. of the Munitions of War Act, 1915, the extensions became legal and had binding force.

The chief steps in the subsequent extension of the bonus were as follows:—the explosives, chemicals and allied trades were awarded it by the Committee on Production on 5 February, sheet metal workers on 8 February, and building operatives employed by the Government on 21 February. A conference on 20 February drew up lines of settlement for the extension to piece-workers in the iron and steel industry. In the chain, wire and Sheffield light trades revised piece-rates or other special arrangements were substituted. Further extensions by Committee on Production awards were made to the metal trades, certain classes of employees of local Government Authorities and public

¹ L.R. 15726.
utilities, rubber, building (so far as not already covered), vehicle building, and smaller trades in the course of April, and a large number of awards affecting individual firms were made. The Committee was still busy extending the bonus all through May. Some of the awards affecting individual firms were important, for example, Messrs. Kynoch's, Birmingham, which was taken as a test case of the large composite engineering and chemical works, in which certain sections of the employees were covered by General Orders and Awards, but others not covered.

The delays inevitable in this piece-meal handling of the advance caused much jealousy and unrest; the actual awards, by making the bonus payable from different dates, did not allay such feeling. The press announcement of 11 January, although it stated that all claims should now be made to the Ministry of Labour for reference to the Committee on Production under the Munitions of War Act, 1915, did not relieve the Ministry of Munitions of a considerable share of the work involved. Weeks elapsed before claimants generally realised that they should not prefer their claim to the Wages Section of the Ministry, and every award left a margin of doubtful cases or difficulties of application which, in the case of munitions employment, came to the Wages Section for decision or advice. The section endeavoured to accelerate a settlement by advising employers and unions to submit joint applications to the Ministry of Labour and induced certain important associations, the National Employers' Federation and the Sheffield Light Trades' Association, to collect their members for uniform action.

Doubtful cases after an order had been issued granting the bonus were referred, in accordance with Section 1 (2) of the Act of 1917, to the Committee on Production, sitting as a special arbitration tribunal. Fifty-four appeals were dealt with in this way, most of them in the engineering and shipbuilding trades.

(b) Conclusion.

By June, the circles started by Order 1061 had spread to the edges of the pond. Isolated claims to the bonus were still being made when the Armistice came, but practically the whole field of munitions employment had been covered by order and award, while employers engaged on commercial work, even if no award had been made, had been compelled to grant the bonus in order to retain their staffs. The bonus had become, therefore, a general advance, and this was recognised in the Committee on Production awards, made at the regular hearings of the engineering and foundry industries in March, 1918; when the unions' claim to an advance on the ground of increased cost of living was rejected. This meant that the status quo in the relations of time-workers, skilled and unskilled, and piece-workers had been restored, and the grievance of the former remained unredressed. Members of the committee who recommended the original bonus defended it on the ground that their limitations had been ignored, and

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1 Wages Section Report for March, 1918.
complained that no extension should have been made without consulting them. ¹ Mr. Kellaway in Parliament claimed that it had prevented the general migration of skilled labour, and consequent loss of production, that had been anticipated when leaving certificates were abolished. The effect had been thoroughly sound, and there were fewer strikes than at any period during the war. ²

It has been necessary to give a somewhat disproportionate amount of space to the history of the 12½ per cent. bonus, because it became the subject of acute controversy and it has been necessary to make clear the attitude of the various contestants, and to bring out the limited effect of the order no less than the extent of its repercussions. Not every thing that happened between October 1917 and April 1918 is to be attributed to the issue of Order 1061. On the other hand the Schedule of Protected Occupations would have afforded a considerable safeguard against the feared migration of skilled time-workers to semi-skilled work, even if the bonus had never been granted. The "system of wages" on the other hand, which the Order was alleged to have dislocated, was not in fact a balanced system in October 1917. In any case the shock it sustained on the issue of the little-noticed Coal Controller's award of that month³ was much heavier than that which resulted from the 12½ per cent. bonus. The cost of the bonus had been much exaggerated. So long as it retained its original character of a special bonus to a special class its cost was moderate. When it lost that character it merged in the general advances, made at regular intervals to meet the rising cost of living, and was treated as such by the Committee on Production in March and April 1918.

From the point of view of the Ministry of Munitions, the bonus was an attempt to remedy an admitted grievance to a limited class of workpeople affected by the Ministry's contracts. The Hills Committee first widened the scope of the measure by including all skilled time-workers. When the administrative difficulties of confining it within even this extended scope became obvious, the Cabinet allowed it to be extended generally, and the Committee on Production covered up the failure to remedy the original grievance by treating the bonus in effect as one of their own periodical awards. The grievance itself arose from an earlier failure to deal with the anomaly of inflated piece-rate earnings, an anomaly that had already become obvious in the winter of 1915. ⁴ The record shows the great practical difficulty of drawing sharp lines of demarcation in industry, and the impossibility of maintaining such lines, when drawn, if administration is divided among a number of authorities. ⁵ The details involved in the application of the original Order alone were too numerous and complex for any merely advisory committee to define, and the Hills Committee may be taken as one further example of the difficulty of correlating the activities of advisory committees of busy men with the day to day necessities of departmental administration.

¹ Cf. Mr. W. H. Hutchenson's evidence before the McCardie Embargo Committee.
³ Chap. VII, p. 212
⁴ cf. p. 167.
CHAPTER VII.
THE PROBLEM OF CO-ORDINATION.

I. Introductory.

The Ministry of Munitions never possessed either the statutory powers or the administrative machinery needed for the systematic control of wages; yet the control that it sought to exercise could be completely effective only if it were systematic and general. The Ministry's interference with wages was incidental to its main purpose of organising the production of munitions. It was limited to the minimum of interference with voluntary settlements that seemed from time to time to be practicable. It originated, as is shown above, as a consequence of the limitation of profits; it was continued and extended in the interests of industrial peace and output, since output was checked by discontent and restlessness of labour, stimulated by content and appropriate methods of payment by results. The expansion and exercise of the Ministry's statutory powers of wages control have been described above; in this concluding chapter, certain special problems and difficulties that arose from their limitations are considered.

These difficulties were mainly difficulties of co-ordination. The administration of the Ministry's statutory powers of wages regulation was necessarily in the hands of a special department, the Wages Section of the Labour Regulation Department; but the Supply Departments and Finance and Contracts Departments had a direct influence on wages through the fixing of contract prices. Contract prices were related more and more directly to cost of production, in which labour cost was always an important element; labour cost depended on rates of wages, which depended in turn, in part at any rate, on the regulation of wages by the Government. As has been explained above, it was not the intention of the Government to regulate wages, but merely to substitute arbitration for the strike and lock-out; employers, however, argued that the Government's interference deprived them of their normal power of resistance, that the Government was responsible for advances in wages awarded by the Committee on Production and other tribunals, and that therefore they could claim to be re-imbursed by the Government for any increases in costs due to such awards.

The immediate interests of the different sections of the Ministry were not identical. There was always a conflict between the Supply Departments and the Contracts and Finance Departments, since the former were inclined to subordinate economy to the need of securing supplies at any price, while the latter were primarily concerned with

1 Chap. I.  2 Chaps. II and IV.  3 Chap. I, Sect. 4.
economy. The Wages Section was predisposed neither to favour wage advances nor to resist them, but to study the effect of any particular advance on the movement of wages in general and on industrial peace. The different grades and classes of labour are so connected, that a wages settlement in one grade or class has immediate reactions on others; wages demands, therefore, which seemed to concern only the employer to whom they were addressed, or the Supply Department for whom he was working, had to be considered also from the point of view of munitions wages as a whole, and it was to ensure this consideration that wages regulation was undertaken.

Even if co-ordination between different parts of the Ministry were attained, the regulation of wages was more than a departmental problem. Munitions labour was employed directly or indirectly by other Departments as well as the Ministry of Munitions. A settlement by the Ministry would not stand, if another Department authorised payment by its contractors of a different rate of wages to the same class of workers. Further, the rates of wages of different industries are closely connected and a change in one industry will invariably provoke demands for a corresponding change in industries that are either technically connected or customarily associated with it in the settlement of wages. Effective wage regulation, therefore, would require control by a single authority over all industries. Instead of this, the control of wages was divided between the Ministry of Munitions, the Ministry of Labour, the Admiralty, the War Office, the Coal Controller and the Railway Executive Committee. The Wages Section was struggling with a problem that stretched beyond its grasp or even the Ministry’s grasp. The problem grew until it became one of the biggest with which the Government had to deal. It had not been solved when the Armistice came.

II. Wages and Contracts.

(a) Limitation of Wages.

There is no necessity under peace conditions to put pressure on Government contractors to keep labour cost down. The ordinary pressure of competition is sufficient inducement, and the purchasing departments find it more important to insist, through the machinery of the Fair Wages Clause, on contractors paying not less than standard district rates. Under the conditions of war, the force of competition operated in the opposite direction. Competition for labour was much stronger than competition for contracts, and the ordinary motives that lead employers to resist wages demands were weakened or neutralised. The pricing of contracts, therefore, was one method by which wages might conceivably be controlled.

The use of contract terms to control wages did not, however, figure prominently in the Ministry’s policy. The difficulties of such a method were summarised by Mr. Campbell in a memorandum forwarded to the Minister by Sir Stephenson Kent on the eve of the Armistice.¹

¹ L.R. 26039/2.
"It is clear that so many factors enter into the question of what each firm could afford to pay in wages on contracts placed at a standard price and that the allocation of contracts on any rigid basis will be so difficult while the needs of the Army are constantly varying, as to make it impossible to maintain control over wages by such means. Such stipulation in a contract as that standard wages only should be paid in its execution are useless where standards are in a state of flux. In short, regulation of wages through contracts is a method too clumsy, dilatory, and indirect to be at all effective. Contract stipulations can only be used as auxiliary to other means for establishing wages. A very great deal could, however, be done by a system of allocation of contracts, which took closer regard of wages and other labour conditions, in particular man-power employed in relation to contracts to be placed, than has hitherto been attained."

Contractors regularly applied to the division from whom they held their contracts for instructions when a wages demand was made and the contracting division would either refer them to the Wages Section or consult that section and reply itself.

Where contract prices were based on costings, standard district rates were taken as the basis for estimating labour costs, and so long as district rates retained any definiteness and authority this served as a check on extravagance in wages. But after the middle of 1917, district rates lost their validity and the Ministry was forced to consider more direct methods of control. The attempt to keep down labour costs was not distinguishable from the constant effort of the Contracts Department to keep down costs generally.

So far as controlled establishments were concerned, no change in wages could be made without the sanction of the Ministry. But there were still uncontrolled firms engaged on munitions work in 1918, and the check was ineffective even with controlled establishments. It did not apply to advances to individuals, it did not prevent the employer from engaging new labour at an enhanced rate, and it was always possible for a firm, if an application for sanction were refused, to make of the proposed change a difference under Part I of the Act of 1915, and so in effect appeal from the Ministry to an arbitrator.

When the new national factories were beginning work early in 1916, a circular letter was sent to them calling attention to the danger of forcing up wages.1

"With a view to avoiding competition for labour, it is in the view of the Minister, of great importance that no initial rate of wage should be fixed in any National Factories in excess of the standard district rate for each class of labour, and that no increase should be made in the rates once fixed (other than an increase necessary for giving effect to the Fair Wages Clause) without previous reference to the Ministry."

A similar letter was sent to building contractors.

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1 M.W. 95723.
Periodically, suggestions were made that maximum wages should be fixed for industries and districts and the payment of any wages in excess made punishable. Such a suggestion appears in the weekly sectional report for August, 1915. The Building Labour Committee which dealt with a class of labour, of which only a small proportion was employed in controlled establishments, while all the big contracting Departments had relations with it, considered the adoption of a maximum or flat rate for all building operations from its institution in the autumn of 1915. Its attempt to stabilise wages are dealt with below.¹ There existed, however, no statutory power to impose such a maximum until the Munitions of War Amendment Act was passed in 1917; the Building Labour Committee was not able to control wages through clauses in contracts, and it was not until the Building Wages Order (S.R.O. 742 of 1918) was issued on 14 June, 1918, that any general regulation was effected. By this Order time wages for persons on building work, being munitions work or work in connection therewith, were limited to the district rate recognised on 15 April, 1918, or rates fixed by an award under Part I of the Munitions Act or by a decision of the Building Labour Committee; deviation from these rates was permissible only with the sanction of the Department.

In 1918, when the abolition of leaving certificates had restored to labour its full bargaining power and standard rates were rapidly disappearing under an accumulation of special bonuses and allowances, an attempt was made to use the Minister's powers of restricting employment to control and limit indirectly wages. In the case of the London sheet metal workers, the following notice was sent to employers:—

"I am directed by the Minister of Munitions to inform you that he has decided under the powers conferred upon him by the Munitions of War Acts, 1916-1917, and the Defence of the Realm Regulations, to make requirements, regulations and restrictions with regard to the carrying on of sheet metal work in factories and workshops in the London area, and to regulate and restrict the engagement and employment of all skilled workmen employed upon such work, in that area. These requirements, regulations and restrictions are made with a view to securing a due efficiency and economy, and a proper distribution of the labour in that area, employed upon such work.

"I am accordingly to state that the Minister of Munitions, with a view to increasing the production of munitions, hereby regulates and restricts the employment and engagement of skilled sheet metal workers by you, and directs as follows:—

Conditions of Employment.

"(1) (a) You will not be permitted, without the written authority of the Minister, to engage or employ any skilled sheet metal workers in excess of the total number in your employment on the date of this communication.

¹ See below, p. 205.
"(b) Applications for authority to engage a number of workmen in excess of that employed by you on the date of this communication, must state in detail the circumstances justifying the engagement of an additional number of men.

"(2) (a) You will not be permitted to engage or employ any skilled sheet metal worker at a rate of wages other than the recognised day-work rate for the London area, plus war wages, as defined in paragraph 3, except in the circumstances specified in paragraph 2 (b).

(b) Any skilled sheet metal worker in your employment at the date of this communication, and paid at a rate of wages other than the recognised day-work rate for the London area, plus war wages, as defined in paragraph 3, shall continue to be paid by you while so employed such higher wages. The Minister will sanction the payment of wages higher than the recognised day-work rate for the London area, plus war wages, as defined in paragraph 3, to any workman engaged by you after the date of this communication (with the authority of the Minister, where such authority is required), who was receiving such higher wages from his last previous employer. When sanctioned, such higher wages will be payable as from the date of engagement of the workman, but pending sanction, he must not be paid in excess of the recognised day-work rate for the London area, plus war wages, as defined in paragraph 3.

"(3) By the term "recognised day work-rate" for the London area is to be understood the rate of 1s. 1d. per hour (or in the case of men engaged on panel beating 1s. 3d. per hour), and by the term "war wages," it is to be understood the war wages payable from time to time under general awards applicable to sheet metal workers."

The same powers could have been used, and their use was suggested, to limit wages generally; but the exceptions allowed by paragraph 2 (b) of the regulations took away much of the effect of the embargo, and a necessary preliminary to any extended use would have been the re-establishment of definite and authoritative district rates.

The importance of restricting wages paid to the ordinary district rate attracted particular attention in the case of building, because a large proportion of the Government's building construction was undertaken by contractors on a cost and percentage basis, which gave employers a positive inducement to raise wages. In a return prepared for the McCardie Committee in November, 1918, it was shown that of production contracts outstanding on 31 August, only 1:44 per cent. of the total value were on a cost and percentage basis; of construction contracts, 57 per cent. of the total value were on this basis. It was the policy of the Ministry to restrict cost and percentage contracts as far as possible, and to grant them only in cases where it was impossible or very difficult to estimate a fixed price. On a complaint from a

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1 See above, Chap. II, Sect. 7.
Manchester firm that such contracts were causing unrest, Mr. Kellaway on 20 October, 1917, instructed the head of the Wages Section in conjunction with the Controller of Contracts to prepare a clause explicitly prohibiting any payment in excess of the district rates. The following clause was drafted:—

"The contractor shall not, in the execution of this contract, pay to any class of labour employed thereon, or in connection therewith rates of wages, bonuses or allowances in excess of the standards current in the district for that class of labour without the previous authority in writing of the Ministry of Munitions.

The contractor shall be responsible for the observance of this stipulation by any other person or persons to whom this contract or any portion thereof is sub-let or assigned by the contractor."

The Controller gave instructions on 26 October, that it should be included in all contracts, and Mr. Kellaway minuted that attention should be paid to the observance of the clause in all audits of claims. The inter-departmental Joint Committee of Finance and Contracts Officers decided on 22 November, that the clause should be applied to existing as well as to future cost and percentage contracts.

(b) Compensation for Wage Advances.

The employers claim to a revision of contract prices on the ground that labour costs had been increased by Government wage awards and orders, figured prominently in the negotiations between the Ministry and contractors. On contracts entered into before war broke out, concessions were made on the initiative of the Army Council; a more difficult question of principle was raised, when contractors began to ask for a revision of prices on contracts entered into in the war period itself.

A number of such demands were made as a result of the advances in wages awarded by the Committee on Production in the early months of 1915. The ground of the demand was that conditions were so unstable that it was impossible to make allowances for all changes in fixing prices, and that the Government, by compelling employers to accept arbitration so as to avoid stoppage of work, had thereby assumed an obligation to indemnify them against increases of pay awarded. It may be noted that labour spokesmen at Committee on Production hearings took the same view, arguing that employers could grant advances because the Government would re-imburse them. The pre-war rule was that existing contracts could be varied only with the consent of the Treasury in each case, and the Treasury's position was that a concession could be made only where the contractor proved loss on his Government work as a whole. The answer made to the earliest demands therefore, was an undertaking to consider

1 Munitions Council, 200.
2 Vol. III. Part II. Chap. III.
any representations that might be made if wages should change materially.

On the formation of the Ministry, the question was again raised, and a Committee appointed by the Treasury to recommend general terms on which contracts might be revised and to deal with individual appeals. This Committee, presided over by Mr. Lubbock, reported that there was a *prima-facie* case for revision of pre-war contracts, but no *prima-facie* case for revising post-war contracts; in the case of the latter, careful scrutiny of each claim would be necessary and the actual amount of profits made would need attention. They recommended that the appointment of the Committee should not be made public, since publicity might invite claims. The Treasury approved the report and the Committee proceeded to consider claims.

In the second report on 31 December, 1915, dealing specially with claims based on increased labour costs due to Committee on Production awards, the Committee recommended that contractors should be informed that the claims could not be admitted, The Committee on Production had never held out any hope that advances would be repaid, and there was no ground for the suggestion that wages would not have risen but for the Committee on Production's awards. If a contractor still pressed for revision, he should be told that the Government would consider cases where it could be shown that an actual loss had been incurred on Government work; but all work done for the Government must be brought into account and, if necessary, books examined. This report also was approved.

Contractors were not satisfied with this concession. In February, 1916, the Ministry negotiated an agreement with the chief armament firms for a substantial reduction in shell prices, and decided that it would be necessary at these reduced prices to make allowance for fluctuations in the cost of material or labour. Clauses making such provision were therefore attached to tender forms issued in May to these firms; and again in August when the provision for fluctuations in prices of materials was withdrawn, the provision for fluctuations in wages was repeated. In some contracts, schedules of price changes corresponding with different rates of wages were included.¹

The concession of principle made to the armament firms could not be confined to them; nor could it be confined to shell prices. It was not, however, extended generally without hesitation and opposition from the Treasury. The first important extension was made on 1 November, 1916, when the Minister gave a pledge to the representatives of the Boards of Management to make good any increase in wages given on the direct instructions of the Ministry of Munitions. The pledge was subsequently defined to cover advances made as a result of an arbitration under the Munitions of War Acts, an order by the Minister under Section 6 or Section 7 of the 1916 Act, an agreement sanctioned or approved by the Minister, or an advance in the district

¹ Vol. III, Part II, Appendix VII.
rate required to be paid by the Fair Wages Clause. It was confined to contracts for shell placed by Boards of Management; it threw on the contractor the burden of proving an increase in costs of manufacture and reimbursed him the actual increase. Since this involved a separate examination of each claim and might result in different amounts of compensation for different firms, the system was changed in May following. A schedule of fixed equivalents was drawn up, providing for a definite alteration in the price of each kind of shell for each of the general changes in wages.

Direct contracts could still be varied only in accordance with the procedure laid down in the second Lubbock Committee report.

The Boards of Management, early in 1917, began to press for an extension of the concession to other stores. The claim had not the same force since their contractors had been producing shell under unfavourable conditions that did not apply to the other stores. The concession was, however, decided on in April, and Treasury sanction asked.

The Treasury referred the matter to the Lubbock Committee. The Committee considered that the Minister’s pledge involved a complete reversal of the Government’s policy. In the case of Board of Management contracts, they recommended that the Ministry should prepare scales, from data in its hands showing costs of production and the proportion which productive wages bore to the whole price, showing for each type of store the equivalent addition to the contract prices necessary to cover the rise in wages. In the case of direct contracts, they recommended that claims should be dealt with on the same lines as heretofore; the admission should not be made that an increase of wages awarded by the Committee on Production of itself afforded grounds for an increase in price. Where, however, a contractor could prove that the effect of an award was to deprive him of a reasonable profit, his claim should be considered subject to certain conditions. Since the number of claims to be dealt with would very much increase, the Departments should be authorised to deal with them instead of referring them to the Committee. In future contracts clauses should be incorporated providing for price variation in accordance with variations in labour costs. The Treasury authorised action on these lines, and the Ministry informed contractors.

There remained the claim of the direct contractors. This was pressed in the spring and summer of 1917, by the Association of Controlled Establishments, the Association of Chambers of Commerce and the Federation of British Industries. It was considered by a Joint Committee of Contracts and Finance Officers of the War Office, Admiralty and Ministry of Munitions, and was finally conceded in principle. Cost variation clauses were agreed on and brought into use on 17 December, 1917.\(^1\) They were to be inserted in future contracts, but only if the contractor demanded them. The Ministry was prepared to consider their application to contracts of at least three months’

\(^1\) Circulars M.C. 17, 18, and 19; Appendix VI.
duration, made between 1 September and 17 December; contracts made before 1 September containing no special wages or materials clause could be treated as cases of hardship and referred to the Lubbock Committee. The clauses provided that contractors might claim "the strictly net amount chargeable to the contract on account of the increased cost of labour properly employed in the execution of the contract"; no additions were to be made for establishment charges or profits, both of which had been claimed by the contractors. The advances on account of which claims could be made were limited to advances due to awards under the Munitions of War Acts or Orders or awards made by the Minister or any tribunal. Advances sanctioned by the Minister, under Section 4 (2) of the Act of 1915, had originally been included, but were excluded at the request of the Wages Section on the ground that their inclusion would make it more difficult to refuse advances proposed by employers. The Wages Section also objected to any bonus on output being included in the labour cost on which a claim was based; the responsibility for such bonuses should rest with the employer who would be recompensed by the additional output evoked. The Contracts Board agreed to exclude any bonus not approved by the Wages Section, and to take approved bonuses into account in fixing the amount of profit allowable.

It was found convenient to meet claims for reimbursement by the method worked out originally in the case of shell contracts. On the data possessed by the Ministry's costing departments, an estimate was made of the percentage or lump sum increase on each unit of product needed to cover a given increase in wages. Contractors were offered such increase in settlement of their claim; if they refused it, they could have their claim investigated as a "hard case" by the Lubbock Committee.

Thus, the pre-war position that a contract price included allowance for contingent changes in wages was given up, and the Government undertook to meet the full direct charges due to changes in wages consequent on Government interference with pre-war methods of settling wages. A proposal made by the Admiralty representative on the Joint Committee of Contracts and Finance Officers would have been a logical deduction from this change of policy; it was that wages should be standardised and all future changes be ignored by contracting departments, contractors being reimbursed by one central authority that also controlled wages. The proposal was rejected; the administrative difficulties would have been great; but the Government was, nevertheless, left with the sole responsibility for settling wages. Employers had no longer any immediate interest in resisting wages demands, though they might still be influenced by thoughts of the post-war wages situation. The introduction into contracts generally of these cost variation clauses represented the final repudiation of the principle on which the Government's interference with wages had originally been based, namely, that wages could be left to the ordinary processes of bargaining with the mere substitution of compulsory arbitration for the lock-out and strike.
(c) Limitation of Prices and Sliding Scales.

In the iron and steel manufacturing industries the contracts policy of the Ministry had a special and peculiar influence on wages. In these industries, which employed in controlled establishments 280,000 men in addition to 16,000 in tin-plate mills, the wages of the majority of workers were based on sliding scales. The chief exceptions were the maintenance men and labourers, whose wages usually followed the settlements in the engineering and building industries. The wages of iron-ore miners, quarrymen in limestone quarries and blast-furnacemen were based on and fluctuated with the price of pig-iron, those of iron and steel workers on the price of specified kinds of manufactured iron and steel. The rise in the price of all these products which the war demand produced therefore raised wages. Some scales had maxima beyond which wages did not fluctuate; but it was estimated that wages had already advanced 30 to 40 per cent. by the end of 1915, and were likely to rise another 20 per cent. in the near future. The fixing of maximum prices by the Government stopped this rise. The desire to limit wages was one motive for fixing prices; an alternative proposal to limit the movement of sliding scales to 50 per cent. above pre-war level was discussed, but rejected as impracticable on the advice of the Chief Industrial Commissioner.

So far the Ministry’s policy had merely put iron and steel workers into the same position as other munition workers; and new problems arose when it became necessary either to raise maximum prices or subsidise producers on account of increased costs. If prices were raised, the wage-earners would benefit again under their scales. If, on the other hand, a system of subsidies was adopted, the conditions under which the workers expected and were normally justified in claiming an advance in wages would have been established, and they would consider that they had a grievance if they received no advance; yet the rise in price would be due mainly to such factors as increased cost of imported ores, increased freight, increased insurance and adverse exchange, and it did not seem reasonable that the workers should receive a bonus on these national disadvantages.

On the whole, it was thought that a system of subsidies was preferable to an advance in maximum prices in the case of hematite iron, if the labour objection could be overcome. The Labour Department of the Ministry was consulted and advised that the matter be fully explained to the unions, emphasis being laid on the fact that the subsidy carried no profit with it for the employers on Government contracts. It was decided, therefore, to adopt the method of the subsidy and “to explain frankly and fully to the leaders of the trade unions that there would be no interference with the rights of workmen under sliding scale or other agreements.”

Subsidies took the form partly of direct grants to meet increased expenses, partly of rebates on actual freights, insurance and exchange expenses. Direct subsidies were granted to meet the increased cost of

1 See above, Chap. I, Sect. I.
coal due to the Coal Controller’s awards of 1s. 6d. per day to miners in October, 1917, and July, 1918, and to meet the cost of the 12½ and 7½ per cent. bonuses. The practice of employers varied in their treatment of bonuses for the purpose of wage determinations. The Scotch firms counted them as part of selling price for the purpose of the sliding scale; on the North-East and West Coasts they were excluded. The trade union leaders, in putting forward their claim on 24 December, 1917, to the equivalent of the 12½ per cent. bonus granted to time workers in the engineering and shipbuilding industries stated definitely that “the sliding scales had been rendered inoperative by the fixing of maximum prices,” and that in many cases the scale men were in a worse position than unskilled workers who had received war bonuses and than men in the engineering trades. The settlement of this claim marked the beginning of a restoration of the sliding scale system to its old predominance. Workers who had received not more than 20s. war advance, received the 12½ per cent. on earnings; where the war advance exceeded 20s. the excess merged in the 12½ per cent.; but there was also a provision that any advance accruing under sliding scales after the date of this settlement should merge in the advance granted by the settlement.

The general relation of subsidies to wages was settled on 5 February, 1918, after a series of conferences between the Ministry, employers and unions. All subsidies given to the manufacturers since the Coal Controller’s award of October, 1917, were to be regarded as an advance in selling prices and so would affect wages under sliding scales. At the same time all war bonuses given since 1 March, 1917, to meet the increasing cost of living, were to be merged in the increased wages that resulted from the inclusion of subsidies in selling prices.

Before the sliding scale was restored to its normal position as the regulator of wages, the Committee on Production had in a number of cases to deal with applications from iron and steel workers. It dealt with them on three principles.

(1) It granted war bonuses. These were often initiated by the employers; examples were a bonus of 1s. to 3s. in March, 1915, raised two years later to 5s., in the South Wales and Monmouthshire iron and steel trade; a bonus of 6d. a day in March, 1915, to blast-furnacemen in Scotland; a bonus given by Messrs. Bolckow Vaughan to their Middlesbrough employees, raised by the Committee to 8s. a week in July, 1917. Bonuses consisting of a percentage on average earnings were fairly common. On the other hand the Committee refused to award bonuses, where in their opinion adequate advances had been secured by other means; examples were the applications from Cumberland blast-furnacemen, whose advances under their scale amounted to 28½ per cent., and the West of Scotland manufactured steel trade, who had advanced 22½ per cent. since war broke out, on 29 April, 1915.

(2) In a few cases the Committee’s award removed maxima, which, under existing sliding scales, were preventing the further rise of wages. Thus, in the South Wales and Monmouthshire iron and steel trade, a maximum of 45 per cent. over the basis was agreed on in
July, 1915, in addition to which a war bonus was paid. This maximum was reached in January, 1916. On application to the Committee in March it was maintained, but on renewed application in March, 1917, it was removed and the scale extended for the duration of the war. In March, 1916, the maximum (55 per cent. above standard) in the Scotch pig iron (blast-furnacemen’s) scale was extended 10 per cent.; in June of the same year a similar extension from 20 to 60 per cent. was granted for Messrs. Bolckow Vaughan’s scale, but the following year, in July, 1917, instead of a further extension an increased war bonus was awarded.

(3) The Committee attempted an assessment of the advances which workers might have expected had prices and sliding scales been functioning normally. Thus, in March, 1916, on an application from the blast-furnacemen in the Scottish pig iron trade for the termination of their sliding scale, the Committee decided that the scale should be maintained during the war, but that the maximum should be extended and also an advance of 5 per cent. made on wages to compensate the workmen, most of whom were paid on tonnage, for the reduction in output due to difficulty in getting supplies; a minimum wage was also fixed. In October, on a renewed application a further advance of 15 per cent. on basis rates was awarded. A clearer case was the application of the blast-furnacemen at the Blaenavon Company for a payment of 10s. a week in compensation for the loss of percentage on the sliding scale due to the Government’s action in fixing a maximum price for hematite pig iron in the middle of 1916. The Committee awarded an advance of 7½ per cent. on the sliding scale.

The committee was reluctant to interfere with the normal working of sliding scales. It refused to authorise the transfer of blast-furnacemen from one sliding scale to another in the case of the South Wales and Monmouthshire iron and steel makers (24 July, 1916); in other cases it continued to the end of the war the operation of scales which were under notice to terminate. The result was a certain amount of confusion at the end of the war. Steel makers were generally on scales based on the price of open hearth steel; during the war there was a big expansion of production by the Bessemer process to which these scales were not adapted. Wages became adjusted to war prices which included subsidies that would cease with the war. In some cases, for example the Midland firm of Alfred Hickman, sliding scales were instituted during the war, which gave them an abnormal basis.

It should be noted that the Ministry did not require sanction under section 4 (2) of the Munitions of War Act, 1915, to changes in wages consequent on a rise in prices under a sliding scale.

III. The Problem of Wages in the Building Industry.

The attempts to control wages in the building industry illustrate well the difficulties and possibilities of inter-departmental action.¹ The services of the industry were required urgently and on a large

¹ Hist. Rec./H./321/2.
scale by several Departments, especially the War Office for camps, and the Ministry of Munitions for factory construction and housing of munitions workers. There was a shortage of labour which made itself felt as soon as the Ministry programme of national factory construction was launched, due partly to unrestricted enlistment during the period of depression in the industry which followed the outbreak of war, and partly to the drift of building labour into the more regular and better paid work of munitions production; while wages standards were disturbed before any attempt at control was made by the competition of contractors, by varying local arbitration awards, and by the recruitment of navvy battalions by the War Office at rates of pay, 3s, a day and allowances, which gave the labourer with a family an income considerably in excess of his industrial standard.

Almost simultaneously attention was drawn to the need of systematic control by the Office of Works, which suggested subjecting building labour to the same limitations of movement as engineering labour, by the War Office, which forwarded to the Ministry a complaint by a contractor building hutments and paying 6½d. to 9d. an hour that his labour was leaving him for Gretna where the rates were 7½d. and 9d., and by the Treasury, which urged co-operation between the Ministry and the War Office in order to prevent competition for labour.¹ The matter was discussed at an inter-departmental conference on 22 October, 1915, which recommended the appointment of a small standing committee. This recommendation was accepted by Dr. Addison, the terms of reference of the committee being:

"to consider and make recommendations with regard to the rates of wages and other questions arising in that connection with regard to the supply of building labour for Government purposes."

The Committee passed through the following stages in its first year in dealing with building wages:

1. It was decided at its first meeting (28 October) that no uniform rates, such as had been suggested, could be adopted for builders' labourers throughout the country; any such standards must be adopted locally if at all, and "the existing wage rates were the only possible basis." One reason given for this by the Committee was that the recent Gretna award as to labourers' wages, quoted above, had fixed so high a rate that it was quite impossible to bring the rest of the country up to its level.

2. A circular was, on the recommendation of the Committee, sent out by the Wages Section in February, 1916, to Government contractors, urging them to refrain in future from paying more than the district rates to their workers, and to notify the Ministry of Munitions of any proposed changes in their rates of payment. Between thirty and forty replies to this circular were received, agreeing to its terms, and incidentally in several cases complaining of the degree to which their workers were unsettled by rates of pay offered by other Government contractors, especially those working for the Ministry of Munitions.

¹ Correspondence in Hist. Rec./R./321/1.
(3) Could building contractors offering exorbitant rates of wages be "controlled" as a remedy? The question was raised in January, 1916, with special reference to a group of firms in Coventry, who were said to be trying to outbid each other in securing labour. The Treasury solicitor gave, as his opinion, that the business of a builder could be declared a controlled establishment, and that by making establishments controlled it would be possible to prevent future increases of wages. He doubted whether any general regulation of building wages would be within the powers conferred by the Defence of the Realm Act.

(4) After two months' existence of the Committee, Mr. Morgan minuted to Mr. Rey, "the Committee suffers from lack of executive powers, and it is suggested that definite powers to require building contractors on works of all kinds connected with munitions to adhere to such scales as regards rates as it may lay down, should be delegated to the Committee." No executive powers with regard to wages were, however, at the time delegated to the Committee—this had been one of the obvious weaknesses of its position—and it had, therefore, to try perforce to regulate them by peaceful persuasion. This was done during its first year by an informal understanding among its members that they should report carefully on the contracts of their departments, and that no rates in excess of the district rates should in any case be paid, without the previous sanction of the committee. It was, however, only in February, 1917, that this procedure was formally recognised by a departmental minute.

(5) The informal understanding between members of the committee during 1916 to some extent kept building wages from being forced up merely by competition among impatient Departments and contractors, as distinguished from advances gained by arbitration awards, agreement with employers, and reasonable allowances for extra payments in the remote districts in which some munition works and soldiers' camps were placed.

The Departments concerned, however, sometimes omitted to consult the committee about wages to be paid by their contractors, and there were several fresh instances in the autumn of 1916 of overlapping between the firms working, for example, for the Army Contracts Department and the Office of Works. Accordingly, at the end of October, 1916, Mr. Johnston, on behalf of the committee, sent a fresh minute, this time to the Minister, explaining the utter inadequacy of its powers and asking for authority "to call on any Department to insist on its contractors reducing rates of wages paid by them ... in excess of the standard rate of the district, and further to insist that wages should not be raised above that rate" except with the Committee's fully considered consent. The Committee, it was explained, contained at the time representatives of every Department concerned with the erection of buildings for war purposes: the Admiralty, The War Office Contracts Departments, Explosives Supply, the National Shell Factories, the Office of Works, the Director of Factory Construction, the Director of Housing, the Road Board, with Mr. Vernon and Mr. J. C. Smith of the Wages Section.
As a result of these representations, instructions were sent to all the supply departments concerned within the Ministry, directing them to supervise the contracts of their departments in this way, while, after a good deal of discussion of the constitutional position involved, the representatives of the Departments outside the Ministry agreed, except in cases "of grave emergency," to be bound by the decisions of the Committee.

The Committee thus, after more than a year's work, obtained authority for the most important function laid down in its terms of reference—the control of wages.

As in the case of engineering labour, the question of wages could hardly be separated from the supply and movement of building labour. At its first meeting the Building Labour Committee considered the application to building labour of the leaving certificate provision of the Munitions Act. It was advised that the Act did not permit such an application. The Amendment Act of 1916 extended the definition of "munitions work" to the construction and repair of buildings for naval and military purposes or for munitions work, but this extension affected only a small proportion of the force engaged on building work. The regulations could still not be applied to the workers employed in preparing the ground for munitions factories and working on the early stages, and these were the building workers whose unsettlement gave most trouble in 1916. The leaving certificate provisions were unsuited to the building industry with its practice of short term engagements, and neither contractors nor committee pressed the Government very strongly for their extension to the industry.

An alternative method of restricting competition for labour was by restricting advertisement and other forms of "enticement," as had been done in the case of engineering labour by Regulation 8 B of the Defence of the Realm Act. This method was recommended by the Committee on 10 February, 1916, and subsequently, but without effect.

A more drastic method was to prohibit or limit the employment of building labour on private work and so to release labour for Government work. The Admiralty representative urged this method on the Committee in view of the shortage of labour for work at Rosyth as early as 2 December, 1915, and the procedure was, it seemed, legal under Regulation 8 A (b) of the Defence of the Realm Act. Though not adopted immediately, this method was applied, in the first instance, to the work on the London County Hall, on 20 February, 1916. This power was used sparingly, not merely because of the possible dislocation and expense of compensation, but because there was no security that the labour displaced would not be absorbed by other private work. Actual prohibitions were supplemented by a press notice on 29 March, 1916, advising private firms to commence no building operations without first consulting the Ministry of Munitions. The notice attracted a good deal of attention, and enabled the Building Labour Department to exercise pressure without actually invoking the aid of a compulsory Order.  

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1 L.R. 51873/16, 63.  
2 L.R. 51877/31.  
3 L.R. 51873/20, 25.
In spite of these measures, the Departments with building work on hand found themselves still faced with a shortage of labour. Both they and the Committee were of opinion that the only remedy was a general embargo on unregulated private building. The Board of Trade’s figures of employment pointed to the conclusion that there was still a reserve of labour on private work. A special regulation, S E, was accordingly issued under the Defence of the Realm Act, prohibiting the undertaking or completion of any building contract of more than £500 in value, or involving the use of constructional steel, unless carried out under Government contract or by a local authority authorised by a Government Department to borrow money for the purpose, or unless licensed by the Ministry of Munitions.

Neither the co-operation of contracting departments through the Building Labour Committee nor the restriction of employment on private work checked the upward and irregular movement of building wages in 1917 and 1918. The Departments did not always consult their representative on the Committee, or send representatives regularly, or exercise complete control over their contractors. Had they done so, rates were constantly being changed by arbitrations which, being local, were not co-ordinated and never final. Advances in the nominal rate were not large; the London increase, for example, between July, 1914, and July, 1917, was only 2½d. an hour; but earnings were driven up by the grant of extras, meals, fares, lodging money, special bonuses and, of course, by overtime and regular work. The Building Labour Committee sought to check these allowances, but had not always the power. Thus an award by an arbitrator appointed by the Chief Industrial Commissioner at Hereford early in 1917, granted "wet money" — a special payment when wet weather prevented outside work — which the Committee had always opposed; the National Service scheme for volunteers proposed a lodging allowance of 17s. 6d., which the Committee had always opposed as unnecessary in the building industry, which involved migratory work in normal times; and double pay for Sunday work became a sort of special bonus on Government work until the Committee secured a special Order under Regulation 8 E, in July, 1917, prohibiting it except on sudden emergency. The rising cost of living provoked, and the growing shortage of labour enabled, building operatives to secure constant advances.

In the autumn of 1917 a new Department attempted to solve the problem of wages in the building industry. The National Service Department, in discharge of its obligation to economise man-power, organised joint committees of employers and workpeople to assist it

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1 L.R. 51873/26.
2 Hist. Rec./R./321/2.
3 Minute by Mr. Fane, 17/1/18 (L.R. 15945).
4 The Journal of the Amalgamated Society of Carpenters of October, 1916, said: "Seventy-five per cent. of our members are at present engaged on war work, the majority of whom average £3 a week. . . . It is a well-known fact that many of our members have taken up to £6 and £7 per week for periods of weeks, and others up to £4 and £5 for months in the last two years."
in considering the needs of each industry. At a conference promoted by that department, in October, 1917, it was decided to form such a joint board for the building industry, although members of the Building Labour Committee present took part only on the understanding that the conference was merely to discuss the question. The Board was to settle all questions of wages and conditions of labour as well as the economising of man-power and allocation of contracts in building.

The Building Labour Committee, whose members at the conference had refused to give their support to the proposal, at its meeting on 27 November passed the following resolution:—

"This committee desire to point out that they view with considerable alarm the suggestion that a committee formed, with the exception of the chairman, entirely of the representatives of the Masters and Men, should settle the question of wages and conditions of labour. The work of the present committee is to force adherence to standard rates, and the difficulties they have to contend with are not so much the demands of the men as the eagerness of the master builders to pay increased rates with the view of keeping the men together. At the present time, when practically all work is Government work, additional wages do not fall upon the builders, but upon the ratepayers, and a committee upon which there is no member of a Government Department to state the case from the Government point of view would have no interest in keeping rates down, and there would be a general rise all over the country."

The formation of a joint board was held up as a result of this opposition, but a renewed attempt was made in the New Year. Some of the principal contractors employed by Sir John Hunter's department pressed for the reference of all wages questions to it. Resolutions from trade unions and master builders' associations reached the Ministry in favour of it, and on 19 February a joint resolution from the National Federation of Master Builders and the trade unions, protesting against the delay in setting up the board was addressed to the Minister. Sir John Hunter himself, as a result of complaints about unequal conditions, put forward a proposal for a flat-rate for the whole country for each grade of building labour, and suggested the London standards as a basis. The chairman of the Building Labour Committee objected that this would be to attempt to apply equal conditions where equal conditions could not and did not exist; new rates needed fixing, once they were fixed the committee could resume its work of preventing any departure from them.

The opposition of the Ministry of Munitions to the proposed joint board was reinforced by that of the Ministry of Labour. At an

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1 L.R. 15745.
2 Complaints were frequent against the contractors working for Sir John Hunter's own department: e.g., Building Labour Committee Minutes, 12 February, where a contractor building an aerodrome was reported to be paying building labourers 11½d. an hour plus 5s. a week bonus, instead of the local rate of 7½d. an hour and 4d. a day bonus.
3 Minute by Sir Ernest Newton, 21 January, 1918 (L.R. 15745).
inter-departmental conference convened at the Ministry of Labour, on 4 February, Sir David Shackleton stated that there was very grave objection to the kind of Wage Board proposed to be set up in the building industry, and that his department could not approve of such a board settling the wages in that industry as:—

(1) there was no check on the agreements they might make;
(2) that it would inevitably lead to demands of other industries to be allowed to deal with their questions in the same way.

It was suggested by him that what was necessary was a committee with powers to see that departments did not outbid each other, and that employers were strictly limited to paying the standard rate of wages in the districts.

As a result of this conference the Ministry of Labour circulated a memorandum on the whole problem on 12 March. After explaining the need of control, it recapitulated the reasons for objecting to the joint board proposed by the Ministry of National Service, and supported by the trade. Such a board might make awards inconsistent with the policy of the Committee on Production; whereas it was essential to maintain the position of the Committee on Production as the supreme co-ordinating authority, since one industry’s settlements reacted on other industries. Moreover, the ordinary brake of competition being removed, there was nothing to prevent wages from being raised above an economic level at the expense of the State. The memorandum then summarised various alternative policies discussed at the conference: the reform of the Building Labour Committee, the use of local conciliation committees as advisory to the contracting departments, the unification of control by the concentration of all Government building work in the hands of a single building department, and the organisation of the building industry on the same lines as the engineering industry for joint submission of wages demands to the Committee on Production.

The Scotch building industry had, in January, made an agreement at the instigation of the Chief Industrial Commissioner for the submission of wage questions jointly at four monthly intervals to the Committee on Production. The Ministry of Labour’s proposal, circulated with the memorandum, was that the national conciliation board of the building industry, which had ceased to function during the war, should be resuscitated; general wage applications should be submitted by this board to the Committee on Production at regular intervals, as was done in the engineering and other industries; questions affecting district conditions or customs should be formulated by the local conciliation boards, and no change permitted without the concurrence both of the national board and of the Ministry; the Ministry of Labour to consult contracting departments where changes were proposed, and, if they disapproved, to submit the case to the Committee on Production, the poaching of labour and excessive rates to be checked, if necessary, by the use of the Defence of the Realm Regulation, 8 A (b). The last point had been suggested by the Ministry of Munitions in a letter of 4 January.
The Ministry of Munitions, in reply, suggested two amendments of importance. The first was that the Minister of Labour should be assisted in considering changes by the Building Labour Committee, which embodied a wide experience and a detailed knowledge both of the building industry itself and of the reactions of building wages on other industries. The second was that local conciliation boards should refer proposals for changes direct to the Ministry of Labour. These amendments were accepted, slightly altering the balance of the scheme. In effect it now restored the authority of the Building Labour Committee, and gave it the means of making its decisions effective. On the one hand no change was to be considered, unless the representative organisation of the trade made itself responsible for it; on the other hand its decisions had a force they lacked when the committee was merely a piece of liaison machinery between contracting departments, since they had the authority of the Ministry of Labour, on which the Cabinet had imposed the duty of co-ordinating wage settlements generally. The building industry adopted the recommendation that general wage claims should be submitted to the Committee on Production at regular intervals; but these national settlements had not the same importance as in other industries, the chief occasion of controversy being local variations in special bonuses and incidental payments.

The Chief Industrial Commissioner took the chairmanship of the Building Labour Committee. To enable the Ministry of Labour to exercise its control, the Building Wages Order was issued on 14 June.\(^1\)

The Order, after defining "building work," limited time-rates, working rules and conditions of remuneration, as from the date of the Order, to the wages fixed under any award made under Part I of the Munitions of War Act, 1915, or by a decision of the Building Labour Committee, or, where no such award or decision had been made, to the wages recognised by a Conciliation Board or collective agreement on 15 April, 1918. These rates and conditions could be varied only by an agreement between employers and workpeople approved by the Minister, or by an award under Part I of the Munitions Act of 1915. Any difference arising out of the application of the Order was to be referred to the Special Arbitration Tribunal appointed under Section 8 of the Act of 1917; in other words, to the Committee on Production sitting as a special tribunal. Any contravention of the Order was punishable in like manner as if the Order were an award under Part I of the Act of 1915.

**IV. Extension of the Coal Controller's Awards.**

The reactions on the Ministry of Munitions' work of other Departments' action in interfering with wages are illustrated by the Coal Controller's first award.\(^2\) On 28 September, 1917, the Coal Controller agreed with the Miners' Federation of Great Britain to grant a special

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2. See memorandum by Mr. J. H. Jones in Ministry of Labour, Intelligence Division papers.
war wage of 1s. 6d. a day to colliery workers of 16 years of age and over, and 9d. a day to those under 16. The award did not extend to tradesmen, mechanics and others who were already in receipt of similar war advances granted in respect of their particular trade or craft; it was to be recognised as due to and dependent on the existence of the abnormal conditions then prevailing and was to be subject to revision in the light of changes in the cost of living. Where the customary number of days worked a week in any district was less than six, 9s. and 4s. 6d. a week were nevertheless to be paid. It was provided that the increase in the selling price of coal that the award would necessitate should not be made a ground for claiming a further advance.

The award immediately affected the Ministry of Munitions since the Miners' Federation asked that it should be extended to members of the federation in lead mines, ironstone and limestone quarries, coke-ovens, fire-clay and ganister mines. These, though few of them were controlled establishments, were working mainly for the Ministry of Munitions. Mr. McNair, of the Coal Controller's Department, took the matter up the same day with Mr. Craig, M.P., of the Iron and Steel Production Department, and with the Mineral Resources Development Committee early in October.¹

Already, however, the Labour Committee of the Munitions Council had considered the wider aspect of the Coal Controller's action. A preliminary settlement of the Controller's with colliery engine winding men, made without consulting the Ministry, was expected to provoke a corresponding demand from shale oil mines for which the Ministry was responsible, and to cause discontent among other trades, since the war advances of this class were brought up to 29s. a week as against 15s. in the engineering and other industries. The Coal Controller's action was regarded as a claim to a jurisdiction over wages independent of the Ministry of Labour and the Committee on Production. The Ministry of Labour protested to the War Cabinet, and the Ministry of Munitions supported the protest.² The result of this protest was the formation of the War Cabinet Labour Committee referred to below.³

The Ministry first proposed that any claims to participate in the Coal Controller's award should be referred to the Committee on Production. The Coal Controller's Department stated that such a course would lead to strikes. The Ministry therefore agreed to negotiate corresponding advances. After conferences in which Sir Charles Ellis's Committee, the Ministry of Labour, the Coal Controller's Department, and the Labour Regulation and Iron and Steel Production Departments of the Ministry of Munitions took part, the following policy was agreed on:—

(1) All members of the Miners' Federation, whether coal miners or not, were to participate in the award; the actual amount to be paid in each case to be adjusted by the Coal Controller and the

¹ L.R. 4647/7.
² Minute by Sir Charles Ellis, 24 September, 1917. (L.R. 4647/7).
³ See below, pp. 221 et seqq.
Executive Committee of the Miners’ Federation, and a payment on account to be made where necessary.

(2) Pending adjustment by the Coal Controller, any advance made since 1 March last to be merged in the advance of 1s. 6d. and 9d. a day.

(3) When a settlement had been reached with trades represented by the Miners’ Federation, the Labour Regulation Department should negotiate corresponding advances in allied trades.¹

At a meeting with the Miners’ Federation on 17 October, a basis of adjustment was reached. It was embodied in the following memorandum:

“1st: Advances in wages have since the beginning of the war been, generally speaking, given in two ways:

(a) As the result of increased selling prices (trade conditions).
(b) To meet increased cost of living (War Wages).

2nd: The above award is a war wage.

3rd: The last advance to the colliery workers was in February, 1917.

4th: The present award is over and above all other advances, and a flat rate to all colliery workers.

5th: It is laid down in the award in the second paragraph as follows:

‘The advance shall not be paid to any workers such as tradesmen and mechanics who are already in receipt of similar war advances granted in respect of their particular trade or craft. Any question whether any advance so granted is such as to disqualify the class of workers concerned from receiving the war wage or part of it should be at once referred to the Controller.’

With these considerations in mind, the result of conferences with the Coal Controller, the Ministry of Labour, the Labour Council of the Ministry of Munitions, and the Executive of the Miners’ Federation, has been to lay down the following principle for adjusting and harmonising the wages in allied industries to the Coal Controller’s award.

(a) 1 March, 1917, to be taken as the datum line;
(b) Advances taken before 1 March are not to be considered, except in so far as they are less than 12s. per week. (This 12s. is the amount which has been given by the Committee of Production to meet increased cost of living.)
(c) Any amount less than 12s. advance given before 1 March to be regarded as arrears.
(d) Any advance (war wage) which has been given since 1 March, after deducting arrears (c) to be merged in the war wage now awarded.”

L. Committee approved this arrangement. The administration of the agreement when it was handed over to the Wages Section involved considerable difficulties. Five groups were found to be

¹ Memo. by Mr. Craig, 11 October, 1917; L.R. 4647/7. Cf. L. R. 7959.
affected: ironstone mines, coke-oven and bye-product plants, fire-clay and fire bricks, limestone quarries and non-ferrous metal mines. The conditions in these groups varied from firm to firm and from district to district in respect both of commercial conditions and basis of wages.

Commercial conditions varied according as firms were working for the Government and could expect to secure compensation for increased labour costs or not. Employers had not been consulted when the award was made and the agreement come to to extend it, and in some cases refused to pay it. Such cases were referred to arbitration. In some cases the firm, if willing to pay the award to those of its workpeople who were on Government work, refused to pay it to other workpeople doing the same work on private contracts. In the case of lead mines it was necessary for the Ministry, not only to undertake to reimburse employers the cost of the award, about £150,000 a year, but to guarantee them against loss in general, before they were able to make terms with their employees which would secure the necessary output. The bulk of the work affected was, however, Government work, and the Iron and Steel Production Department instructed its contractors to pay the award as soon as the agreement to extend it was made.

The varying basis of wages was a greater difficulty. Coke-oven workers, for example, in South Wales and Derbyshire were in the Miners' Federation, and automatically received the award. In North Staffordshire, West Yorkshire and other fields, they were in a separate union, the National Union of Coke Workers, which became affiliated with the Miners' Federation, but not until after the agreement on 17 October; this union, however, received the same treatment as the Miners' Federation. In the Cleveland and Durham district, on the other hand, the workers in coke-ovens and attached to blast-furnaces were organised with the blast-furnacemen and received the same advances under the sliding scales and otherwise as blast-furnacemen. Clearly, therefore, they should not be classified with other coke-oven workers; but, unfortunately, they had been led to believe that they would receive the award,¹ which, moreover, had been given to Cleveland ironstone miners whose wages also moved with the sliding scale. The Lincolnshire coke workers were on the Lincolnshire blast-furnace sliding scale, but were also members of the National Union of Coke Workers, and therefore covered by the 17 October agreement. It was obviously not contemplated that their wages should move both with the sliding scale and with coal miners' wages, and the Ministry at first refused to sanction their claim, relying on the second paragraph of the agreement, which excluded workers whose wages customarily followed trades other than mining. It was impossible to persist in this course, however, and instructions were given to the firm to pay the award. The firm refused, partly because it had not been consulted when the agreement was made, mainly because it feared the reactions of the concession on blast-furnacemen's wages. The matter went to arbitration, and the men received the award.

¹ M.W. 184160.
There were similar variations among ironstone miners. In the Cleveland district they were on the sliding scale, but received the award by a special arrangement. In Cumberland and the Forest of Dean they received it as members of the Miners’ Federation. In Oxfordshire, Northamptonshire and Lincolnshire they were organised separately and did not receive the award. Some clayworkers and brickmakers were in the Miners’ Federation and got the award, the majority were outside; limestone quarries and non-ferrous mines were in the same position.

The task of administration was eased by the agreement with the Iron and Steel Trades Confederation for the extension of the 12½ per cent. bonus to those trades, reached on 3 January. By this, the bonus and the Coal Controller’s awards were made alternatives, and both were to merge in future increases under sliding scales. Since Government subsidies at the same time were allowed to count as increases in price for the purpose of sliding scale determinations, the incentive to claim the Coal Controller’s award was weakened.

The great majority of coke-oven workers received the award. Ironstone miners received either the award or the iron and steel trade’s advances. It was extended to all non-ferrous metal mines except tin. In the case of clay, bricks, ganister and limestone, the principle on which the Ministry acted was to deal only with those parts of the industry’s output in which the Ministry had an interest as consumer, to instruct employers to pay the wage within those limits, and to undertake to reimburse them. If the unions wished to extend the advance beyond these limits, they must do so by agreement.

On 12 June, the Miners’ Federation demanded a second advance of the same amount as the previous award.¹ The Coal Controller, with the authority of the War Cabinet, offered an advance of 6d. and 3d. with the alternative of arbitration. The federation refused both offers, and the War Cabinet, against the advice of the representatives of the Ministry of Labour and the Ministry of Munitions, decided in the interests of output to concede the claims. The Prime Minister announced the award himself.

The Ministry of Munitions was able to settle its policy in regard to extending the award quickly in the light of its experience with the first award. It refused to be represented at the Coal Controller’s conferences and insisted on discussing the matter of extension with the Miners’ Federation itself. The federation’s representatives visited the Ministry on 29 June, the day after the settlement with the Prime Minister, and stated that they insisted on the award being extended to all their members; failing an immediate undertaking to this effect they should go back to the Prime Minister. They were persuaded to defer any action until a conference on 3 July. Before this conference the different divisions of the Ministry interested—Contracts, Iron and Steel Production, Explosives, and Wages—considered the claim and drew up a statement for submission, first to the Ministry

¹ Verbatim report of interview with Coal Controller in L.R. 4647/8.
of Labour and then to the Miners' Federation. Substantially, this statement was accepted by the miners at the conference on 3 July. Agreement was reached, and, in a conference on 10 July, an agreement on identical principles with the National Council of Colliery Workers other than miners. It was decided that the Ministry of Munitions should notify employers of the agreement; the letter in substance reproduced the agreement and was submitted before issue to the unions for confirmation and to the Ministry of Labour for approval. The following are the effective clauses in the letter:

"It has been explained that the Ministry of Munitions does not prescribe advances to wages for workpeople engaged in these industries. In certain cases, however, the product of these industries is sold at prices regulated by the Ministry; in other cases increased wages cannot be paid to the workpeople engaged on a product essential to the Ministry without financial assistance to the employers. In such cases the Ministry of Munitions has stated that it will be prepared to sanction approved increases in the fixed prices or to recognise approved claims to meet extra labour costs, provided the employer shows that he has paid to his workpeople a war wage or war advance on the conditions hereinafter specified. The Ministry reserves the right to examine the books of the employer in order to ascertain how much, if any, of the claim presented by him should properly be borne by the Ministry.

The amount of the war wage in respect of which the Ministry will be prepared to entertain claims under paragraph 2 hereof from employers, is as follows:—

(a) In the case of Ironstone, Limestone and Lead Mines—the same war wage as has been granted by the Controller of Coal Mines, subject to the understanding that the workpeople have received no advance (exclusive of advances on account of long service, individual merit or regrading) since they received the war wage previously granted by the Controller of Coal Mines.

(b) In the case of Fireclay, Silica and Ganister Mining—as provided in (a) except in cases where the wages of workpeople are governed by the award of the C.O.P. No. 1736 in the Fire-Clay Industry of Great Britain dated 28 June, 1918.

It is not intended that the war wage herein referred to should be paid to the workpeople whose wages it has been the practice to regulate according to the wage movements in a trade, not being the coal trade, other than that in which they are engaged, and no claims by employers under paragraph 2 hereof will be entertained in the case of such workpeople. Any case falling within this exclusion, in which, however, the war wage granted

2 Circular M.M. 214.
by the Controller of Coal Mines as from 17 September, 1917, was paid may be referred to the Ministry for special consideration. It is not intended that any workpeople who received the war wage as contemplated in this letter shall also receive advances based on any other principle, e.g., those whose wages have previously been regulated by a scale dependent on the selling price of pig-iron, if in receipt of the war wage, should not receive advances also due to movements in the scale.

In certain districts for example, Cumberland, Furness, Lincolnshire, Northamptonshire, Oxfordshire, etc.—wages in the industries referred to in paragraph 1 hereof have been regulated by special arrangements and in such cases it is not contemplated that the war wage shall apply.

In addition to the members of the Miners' Federation of Great Britain and the National Council of Societies representing Colliery workers other than Miners, members of other trade unions are employed in the industries specified in paragraph 1 hereof. Employers intending to submit a claim to the Ministry under paragraph 2 hereof in respect of the payment of the war wage to members of such other trade unions should, before payment of the war wage, communicate with the Ministry, stating whether they paid the previous war wage granted by the Controller of Coal Mines and ascertain from the Ministry whether in the event of payment they would be in order in submitting a claim under paragraph 2. Where the workpeople concerned are within the scope of the Committee on Production Award No. 1736 in the Clay Industry of Great Britain, dated 28 June, 1918, a claim by employers under paragraph 2 hereof would not be in order.

Employers concerned in non-ferrous mines other than lead mines who paid the previous war wage to their workpeople should submit particulars of their cases for consideration by the Ministry under paragraph 2 hereof in the event of the payment of the war wage referred to.

It is intended that the war wage herein referred to should, in all cases, be paid as from 30 June, 1918.”

Workers in coke-ovens and bye-product plants received the award and in addition had a special grievance remedied. Under the first award the war wage did not count for overtime and was limited to six shifts a week. It happened sometimes in these continuous processes that the worker had to take a second shift immediately after the previous shift in order to act as substitute for an absentee in the gang that succeeded his own. The war wage of 1s. 6d. had not been payable on this substitute shift, because such substitute shifts could not legally be worked by miners who formed the great majority of the workers covered by the award; and the Coal Controller was unwilling to vary its terms. He did, however, in the following October, issue an additional award allowing payment of the war wage on both substitute shifts and overtime.
The expenses of the Coal Controller's Department were charged on the coal industry. The war wage was therefore charged on the levy made on coal to meet these expenses. The extension of the war wage outside the industry led to the extension of the levy to ironstone and clay got in connection with coal, but not in other cases.

The effect of the Coal Controller's action on the Ministry of Munitions' work was to force the Ministry to extend its regulation of wages to a new field, the industries intermediate between coal mining and iron production, and to throw on the Wages and Contracts Departments a great volume of detailed adjustments, in the one case of general awards to individual cases, in the other of prices to changed labour costs. Its effect on the regulation of wages generally was to compel the War Cabinet to take action to prevent unco-ordinated awards in future.

V. The Co-ordination of Departmental Action by the Cabinet.

The chaos of wages in the building industry, and the dislocation caused by the independent action of the Coal Controller, were only extreme examples of a difficulty that attended the administration of wage control throughout the war. A settlement in one trade or district was certain to have reactions on other trades and districts; an orderly adjustment of wages to changing economic conditions therefore was possible only if every settlement was co-ordinated with every other settlement. In practice, control was exercised and settlements made, not only by the Wages Section of the Ministry of Munitions and the Committee on Production and other tribunals to which disputes were referred under the Munitions of War Acts, but by the Admiralty, War Office, Post Office, Office of Works, Coal Controller, Railway Executive Committee, voluntary conciliation boards, single arbitrators appointed by the Ministry of Labour, and by the ordinary negotiations of collective bargaining in uncontrolled trades. The Wages Section always sought to correlate its decisions with those of the Committee on Production and special arbitration tribunals, it was in constant contact with, and was able to work in co-operation with the divisions of the Ministry that influenced wages by placing contracts. But there was no authority except the Cabinet that could guide and control the independent departments, and co-ordination between them depended almost entirely on consultation and agreement between them until towards the end of 1917.

The Ministry of Munitions naturally was in closest contact with the Shipyard Labour Department of the Admiralty, the War Office and the Ministry of Labour. Between these a fair measure of co-ordination was attained. They dealt with the same industries and classes of labour; the Munitions of War Acts were another unifying influence; and they accepted the Committee on Production as the ultimate authority on general wages questions. But there were differences; the Admiralty, for example, in 1916 resisted payment by results on aircraft construction when the Ministry was pressing it, and in 1917
pressed for statutory enforcement of payment by results generally when the Ministry preferred to rely on voluntary agreement. The sharp differences over the 12½ per cent. bonus have been indicated above. Again, on more than one occasion decisions which the Ministry had made under the sanctioning section (4 (2)) of the first Munitions of War Act were upset by single arbitrators appointed by the Ministry of Labour. And these departments even collectively did not cover the whole field of industry within which the settlements might be expected to react on one another. The difficulty with which they were faced was that there are no sharp lines of demarcation in the continuum of industry; demarcation is always in the last resort arbitrary; a classification that is satisfactory for one purpose will be unsuitable for others.

Thus, the provinces, with which the different departments of State were concerned, were not coincident with separate industries; all were concerned more or less with engineering and with building and with chemicals and with textiles. If a common policy in respect to a particular industry, however, were reached, it did nothing to solve the problems presented by the overlap of industries. Wages questions are largely questions of craft or occupation, and occupational lines of demarcation do not coincide with industrial lines. Any decision in engineering would affect shipbuilding; mechanics and building operatives were employed in large numbers as maintenance men outside the engineering and building industries; general labour and transport cut right across an industrial classification. Yet another cause of confusion is the relation of trade union organisation to industrial structure. Unions on an occupational basis, like the older craft unions, have interests in many industries, so have the unions of semi-skilled and unskilled workers. The trade card scheme of exemption from military service broke down, because union membership was not a reliable index of industrial status and function; the extension of the Coal Controller’s award to all members of the Miners’ Federation affected the Ministry of Munitions, because the federation had members among the ironstone miners, limestone quarrymen, coke workers, lead miners and others who thereby were able to claim the advance and, by getting it, enabled similar workers outside the federation to claim it. While, therefore, every authority that had to do with wages came to realise that no settlement could be made that would not have reactions on other wages, the practice of consultation between departments was not sufficient to ensure co-ordination, and some more effective means had to be sought.

The Ministry of Labour, to which the Chief Industrial Commissioner’s Department had been transferred, was continuously occupied with this problem from its formation. Since it was not a contracting department, it stood in a different relation to labour from that of the other departments concerned. At the instigation of the Chief Industrial Commissioner a series of national agreements was negotiated early in 1917, to submit wages questions periodically to the
Committee on Production.\(^1\) This arrangement did much to restore the committee's authority and power to control the movement of wages, since it was enabled to correlate local advances in each industry and advances in different industries; and the effect went beyond the actual scope of the awards, since other trades, which did not come before the committee themselves, were guided by these awards. The Ministry of Labour was able further to exercise a co-ordinating influence, since all disputes which came under Part I. of the Munitions of War Act, 1915, and all disputes outside the scope of the Munitions Acts in which the parties agreed to arbitration or conciliation, under the Act of 1896, came to it for reference to arbitrators selected by it. By restricting the work of arbitration to a limited number of arbitrators of experience some check was placed on the tendency of rates to diverge.

This action of the Ministry of Labour was not sufficient. The Commission on Industrial Unrest, in the summer of 1917, received complaints from both employers and employed. Mr. Barnes, in his summary of the eight reports, said: "All the reports refer in general terms to what is called the want of co-ordination between Government Departments. The co-ordination of Government Departments dealing with labour is reported as an urgent matter." The reports themselves, however, confuse two things: the need of co-ordination and the need of decentralising labour administration. Much of the want of co-ordination was due to the large measure of decentralisation, which led to individual and divergent action. No further steps were taken to secure co-ordination until the Coal Controller's award in October.

The miners were not a party to the Treasury Agreement. They gave the Government an undertaking instead to utilise the existing conciliation machinery to prevent stoppages. It was in accordance with their usual practice that they refused to submit their claim for an advance in 1917 to the ordinary machinery of arbitration, and the mine owners supported them in their objection. The Coal Controller, as has been seen, therefore, acted without co-ordinating his action with that of the Ministry of Labour and Committee on Production, and arranged to give his first award.

The Minister of Labour brought the question before the War Cabinet who referred it to a committee on labour disputes consisting of Lord Milner and Mr. Barnes, who conferred with the President of the Board of Trade, Minister of Labour, Coal Controller and representatives of the Chief Industrial Commissioner's Department and Ministry of Munitions on 28 September. Their report was issued subsequently and considered by the War Cabinet on 18 October.\(^2\)

The report pointed out that the demand for increased wages, stimulated by the concessions already made to the miners and worked up to some extent, at any rate, by people whose real object was to cause trouble and impede the conduct of the war, was perhaps the most serious difficulty then confronting the country. The attempt to remove discontent by keeping down the cost of necessaries and to stop

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\(^1\) See above Chap. III, Sect. 5.  
\(^2\) L.R. 4647/7.
"profiteering" had failed. If the pressure exercised on the Government by powerful unions was to be resisted, or in any degree controlled, it was necessary that there should be one authority dealing with all general demands for increases of wages; otherwise a concession in one case was apt to compromise the position in other cases.

The committee had come to the conclusion that there was in principle no justification for dealing with wages questions affecting miners by a different machinery from that provided for dealing with disputes about wages in other industries. The Coal Controller was not, as had been contended, in an impartial position between mine-owners and miners. The mine-owners, having a certain profit guaranteed to them, could not be relied on to resist wages demands. The real employer, in the mines as in the railways, was the State; and the natural third party to mediate was the Industrial Commissioner with the Committee on Production and other machinery for arbitration behind him. The argument for uniform procedure in all industries was strengthened by the fact that most of the demands for wages were put forward on the common ground of increased cost of living.

It was not suggested that every dispute should be referred to the Industrial Commissioner. The Coal Controller had reported that there was the strongest opposition on the part of both masters and men to any interference by the Ministry of Labour. They seemed to desire that the mining industry, by virtue of its great strength and peculiar character, should occupy a privileged position in this respect and be virtually left to itself. The committee was of opinion that it would be dangerous to admit this principle, since it would be difficult, if it were admitted, to refuse similar special treatment to other large and highly organised bodies of workers—for instance, the railwaymen. The broad proposition that there should be only one ultimate authority in all labour disputes seemed to the committee incontestable. The matter was, however, of such importance that it should be referred to the Cabinet for final decision.

The Ministry of Munitions was prepared to accept this report as being, indeed, little more than a description of their actual practice. The Ministry, in its capacity of virtual employer, was bound to deal with disputes as they arose in the works they controlled; but, if they were not settled immediately, they were referred as a difference to the Ministry of Labour. In regard to men's wages, the Ministry of Munitions was engaged merely in filling in and rounding off the decisions of the Committee on Production. The power to fix skilled time-workers' wages under Section 1 of the Act of 1917 was an exception; but this power was directed to dealing with a special case, in which the general considerations, such as cost of living, on which general awards turned, did not enter; and it was further co-ordinated with the Ministry of Labour's authority by the fact that the special arbitration tribunal to which differences under the section were referred was one of the tribunals recognised by the Ministry of Labour. In the same way the Ministry of Munitions' general control over women's wages was exercised on the advice of, and subject to reference to, a special
arbitration tribunal recognised by the Ministry of Labour. Provided that its interests as employer were recognised and that the principle emphasised was that there should be only one ultimate authority for handling labour disputes and controlling wages, the Ministry of Munitions fully endorsed the report.¹

The importance of the problem raised by the report was emphasised by the controversy over the 12½ per cent. bonus to time workers, which was discussed by the War Cabinet on 12 October, and likewise referred to Lord Milner and Mr. Barnes. It was considered by the War Cabinet on 18 October. The representative of the Ministry of Labour stated that the Ministry had no desire to interfere in the many small disputes of a local and subsidiary character, in the settlement of which any delay was most undesirable, but in all these questions of a wider character which involved increases of wage to large classes of labour, it had now become essential, where State control of industries had been established, that the State, acting through some central authority, should be a party to any settlement. The representatives of the Ministry of Munitions and Shipyard Labour Department, while pointing out the special problems of their departments, expressed their anxiety to consult the Ministry of Labour. The Cabinet approved the report in principle, leaving it to the departments to arrange its application in detail with the Minister of Labour.²

The additional authority with which the Ministry of Labour was thus armed might perhaps have enabled it to ensure proper co-ordination had no new pressure come upon it. But the grant of the 12½ per cent. bonus to skilled time-workers in the engineering and foundry industry had created a new problem, at once urgent and complicated, while the Cabinet was deciding the question raised by the Coal Controller’s award. The difficulty of confining the bonus to the classes of workpeople originally covered and the equal difficulty of determining to what further classes to extend it, on which there were sharp inter-departmental differences, constituted a situation with which the War Cabinet was again forced to deal. On 27 November, a Cabinet Committee was set up to undertake the co-ordinating function previously entrusted to the Ministry of Labour. The composition and scope of the committee were embodied in a memorandum.³

The committee consisted of Mr. Barnes as Chairman; Sir Auckland Geddes, Minister of National Service, Vice-chairman; Sir George Askwith; Mr. I. Mitchell, Ministry of Labour; Sir Lynden Macassey, Shipyard Labour Department to the Admiralty; Mr. H. Wolfe, Labour Regulation Department of the Ministry of Munitions; Mr. Guy Calthrop, Board of Trade (Coal Controller’s Department).

Negotiations in the departments for the settlement of disputes and of wages questions (whether by agreement, order or otherwise) were to be conducted with a view—(a) to confining concessions within

¹ Minutes by Mr. Kellaway, Mr. Wolfe and Labour Committee in L.R. 4647/7.
the general limits of the decisions given by the Committee on Production, or (b) to dealing with inequalities within an industry or class, (c) to observing the general principle that no advance should be made that was likely to disturb the working conditions of any industry, trade or class, particularly by issue or administration of contracts which involved payment of wages exceeding the district rates. Where such advances were proposed the sanction of the co-ordinating authority should be given.

All settlements, however, were subject to ratification by the co-ordinating authority.

Failing a settlement on these lines and in the event of the claim still being pressed, negotiations were to be continued with a view to securing a joint reference to the Ministry of Labour for remission to arbitration.

Where a department found that in their opinion it was desirable to go beyond the limits proposed in paragraph 2 without having recourse to paragraph 3, the co-ordinating authority might confer with a consultative committee thereof with a view to final settlement, or, if necessary, submission to the War Cabinet.

A consultative committee representative of the following Departments should be appointed:—Treasury, Ministry of Labour, Admiralty (Shipyard Labour), Admiralty (Director of Dockyards), Board of Trade (Railways Department), Board of Trade (Timber Department), Board of Trade (Coal Mines Department), Ministry of National Service, War Office, Ministry of Munitions, Ministry of Shipping, Office of Works, General Post Office, Air Council.

The co-ordinating authority would have power to call on any Government Department to provide it with such information on matters falling within the sphere of that department as it might require. The co-ordinating authority would have power to appoint such officers as it might deem necessary.

The Secretariat was domiciled at the Ministry of Labour, and provision was made for summoning emergency meetings or an emergency sub-committee to deal with the matters demanding immediate decision. The representatives of each of the departments represented on the consultative committee were at liberty to send deputies when unable to attend personally.

The above principles and rules were to apply as far as they might be applicable to women's wages and to all differences other than wages questions.

The avalanche of claims that the 12½ per cent. bonus had released could not, however, be stayed by a consultative body, and the Cabinet Committee never established an administrative machine capable of taking over from the Ministry of Munitions the work of dealing with them. The actual handling of the claims that came in in November, December, and January, fell on the Wages Section of the Ministry, as Mr. Campbell and Mr. Wolfe pointed out.1 The Minister, indeed,
was the only person with statutory powers for dealing with the claims. The Cabinet Committee made one or two decisions on the extension of the 12½ per cent. but otherwise did not function, and the departments continued to act in their respective spheres in consultation with the Ministry of Labour, until the question of extending the bonus from time-workers to piece-workers had to be faced. This again was the subject of discussion by the Cabinet on 7 and 22 January, and resulted in the substitution of the Ministry of Labour again for the Cabinet Committee.

As is explained elsewhere,¹ there was a difference between the Ministry of Munitions and the Ministry of Labour. The former resisted the general extension of the bonus and was engaged in separate negotiations with the separate trades; the latter was in favour of extending the bonus, leaving the actual terms in each case to the Committee on Production. The Cabinet decision was that the bonus should be extended, but that the Ministry of Labour should at its discretion ask other departments to carry on any necessary negotiations. The Ministry of Munitions, therefore, completed the negotiations on which it was engaged, but referred all new claims to the Ministry of Labour, who referred them to the Committee on Production. At the same time the Co-ordinating Committee on Labour Disputes was to be replaced by the Ministry of Labour, and Mr. Barnes was authorised to decide himself or at discretion bring to the War Cabinet any cases which the Ministry of Labour referred to him.² Thus, the final position was identical with the original position; co-ordination depended on the loyalty of contracting departments in co-operating with the Ministry of Labour (formerly the Board of Trade), referring all disputes for arbitration to it, and accepting the rulings of the Committee on Production as the ultimate authority on general wage questions. The Minister of Labour informed the departments that he intended to continue in existence the consultative committee previously attached to the Cabinet Co-ordinating Committee; but in practice contact was maintained, at any rate with the Ministry of Munitions, by continuous informal consultation between the officials of the two Departments.

No further modification of the machinery for dealing with wages questions was made until after the Armistice; but it cannot be said that complete co-ordination was secured. Thus, almost immediately the Minister of Labour had to bring before the Cabinet the case of the London sheet metal workers who were trying to secure a district rate of 1s. 1d. an hour; they had already a war bonus of 40s. as against 27s. and the 12½ per cent. in the engineering industry, and they had refused arbitration six times. Now 44 firms had agreed to give them what they asked for without the Government’s consent; three firms were resisting and the men were on strike. Sir William Weir pointed out that he was dependent on these men for an output of 280 aircraft a week, and in his view the Government was not warranted in incurring such a loss of output by withholding 2d. an hour from a

¹ See above Chap. VI, Sect. 6. ² See above Chap. VI, Sect. 7.
few firms.\textsuperscript{1} Again, on 4 July, 1918, the claims of the National Union of Coke-Oven and By-Products Workers to time and a half for week-end work came up. It was resisted, because it was not the practice in continuous processes to pay these special rates, and a concession here would involve a similar concession in all similar processes. They had already got time and a quarter awarded by a special tribunal after the Committee on Production had refused it; they now threatened a stoppage of all week-end work. The contracting department stated that they could not face the loss of output involved, 20 per cent. on steel and 40 per cent. on light oil. It was pointed out on the other hand that the concession would react very unfavourably on the position and authority of the Committee on Production, and that the Secretary of the committee had stated the previous day that the task of the committee had been made almost impossible by the action of the Government in superseding their awards and by the action of employers in giving sectional advances to special classes of workers. The Minister of Munitions had felt himself unable to decide between the claims of supply and the claims of wages regulation; the Cabinet decided that the former must prevail and asked Mr. Barnes to explain their reasons to the Committee on Production.\textsuperscript{2}

Even if this conflict between the immediate considerations of supply and the remoter considerations of wages control could have been reconciled, the multitude of claims coming forward was too great for any one authority to handle. Necessarily, therefore, the contracting departments were left to deal in the first instance with disputes that arose in connection with work for them; they naturally heard of them first and could usually settle them most speedily; but their independent action was a danger to co-ordination.\textsuperscript{3} More important still was the number of independent authorities, the Ministry of Munitions, the Admiralty, the Coal Controller and the Railway Executive being all concerned in settling wages questions until the end of the war. The State as a whole, like the Ministry of Munitions in particular, became interested in wages only incidentally, so that the administrative provision made for handling wages questions was always a by-product of other activities; its organisation was never governed by consideration of the wages question exclusively.

The difficulties of contracts departments charged with the question of reimbursing employers for additions to labour cost that could be attributed to Government action were another force tending to compel action on the problem.

The Select Committee on National Expenditure in their second report (13 December, 1917) referred to the lack of any single consistent policy in determining wages questions, and recommended that "a single policy, under the general direction of one authority, should be adopted in all industries in the determination of wages questions." They pointed out the bad effects of competition between different

\textsuperscript{1} L.R. 15726.
\textsuperscript{2} L.R. 10825/2.
\textsuperscript{3} The Ministry of Munitions was dealing with 100 to 120 a month at the end of 1917. (L.R. 4647/7.)
trades for higher wages, the diversity of authorities making decisions, and the lack of any central control.

On 22 November, the Admiralty representative on the Joint Committee of Contracts and Finance Officers urged the desirability of centralising the control of wages, granting advances to meet the cost of living explicitly, in the form of Government subsidies, and authorising the authority that controlled wages to reimburse employers with money voted specially for that purpose by Parliament. The Controller of Contracts of the Ministry of Munitions favoured this solution, and the Munitions Contracts Board made recommendations to this end on 2 January, 1918. The Council, however, preferred the method of making a fixed allowance on each class of product, a policy favoured also by the War Office, and that policy was adopted.

The responsibility, therefore, for economy in wages remained with the separate contracting departments. The prevention of uncoordinated advances depended on co-operation and consultation between them, and on loyal support of the Ministry of Labour which was charged with a general supervision of wages. The Ministry of Labour sought to secure co-ordination by referring all crucial cases to the Committee on Production. But the Ministry of Labour had no powers that would enable it to prevent collusive arrangements to raise wages between contractors and their employees, and when an advance was proposed which might cause disturbance in allied or related trades, could only ask that the proposal be referred to the Ministry of Labour for settlement, or for reference to arbitration.

The proposal to unify the control of all wages questions, considered by the contracting departments, was supported by Mr. Churchill himself. During the discussion over the 12½ per cent. and 7½ per cent. bonuses, he had been reluctant to relinquish the powers of wage regulation that the Ministry exercised, and looked forward to recovering and developing them when the bonuses had been settled. But later in the year he came to the view that labour regulation should be separated from supply, and put forward a proposal for a centralised Labour Department as the correlative of a Ministry of Supply. Speaking on 4 October to the Management Committee of the Engineering Employers' Federation, who complained of the continuous and uncoordinated rise of time-rates, and asked for drastic action to prevent it, he said:

"I have several plans which I have watched taking place in the first twelve months here for the reorganisation of Government Departments, with a view to arriving at unity of function. Obviously, the fighting services ought to fight, and the Ministry of Munitions ought to do all the supply, and there ought to be another department which deals with labour from one point of view, and one point of view only. I have thought it out very carefully, and I have not the slightest doubt that it is an absolutely certain solution of a great many difficulties. Just as you have a Finance

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2 Ibid., p. 109.
3 L.S. 8888/4 Minute of 19 January, 1918.
4 Hist. R./Rec./342/14.
Department of the country, the Exchequer, so you would have all these great blocks by functions, and then you would know to whom you had to go, instead of running round to each department, each department head having only a fragment of the power in his hands and only judging it during a period of his time... Personally, I have felt for a long time that the Government is strong enough, and the Nation is sound enough, for a definite advance to be made against this constant upward movement of wages, and the repeated threats we are getting of strikes here and there, and something in the nature of establishing a great national body, tripartite in its character, representative of both parties and of the State, which shall be the sole arbiter in all wages questions, coupling that with the fact that any person who disputes the decision or ruling of this authority will, ipso facto, be taken to enlist in the army if he ceases work. That, I believe, the country would stand and even welcome. I have never seen a strong measure adopted with a really good case behind it that has not been successful. It is very, very difficult to handle these matters. I should be quite prepared myself to assist any scheme worked out on these lines—something in the nature of saying: "We will form a body which will absorb the Committee on Production, and be a Wages Tribunal with district branches, and so on, for the whole country, with representatives of Labour, as well as employers on it, and say that their rulings are to be obeyed, and those who do not obey, if they are otherwise liable, must go and serve in another way."

After the Armistice, the Wages Section of the Ministry of Munitions, together with the rest of the Labour Regulation Department, and the Shipyards Labour Department, were amalgamated with the Ministry of Labour. The Committee on Production was reconstituted under the Wages (Temporary Regulation) Act as the Interim Court of Arbitration, and, a year later, under the Industrial Courts Act, as the Industrial Court. The embargo on strikes was removed, and freedom of bargaining restored subject only to the maintenance of the ruling district rates as legal minima for twelve months. The changes did not bring order into wages. The anomalies that had arisen during the war persisted. The committee of the National Industrial Conference convened by the Government in February, 1919, recommended that the Ministry of Labour should approach the different industries and urge them, through their ordinary conciliation machinery or in special conferences, to negotiate new standard rates in place of the existing mixture of rates and war bonuses, referring the decision to the Court of Arbitration if necessary. But action on the committee's report was delayed and little done. Such order as was restored to wages was due to voluntary agreement rather than official action, and the avoidance of serious and extended unrest in the process of readjustment was due mainly to the fact that prices continued to rise, so that there could be no question of removing the various general, sectional, and individual bonuses with which the war had overlaid the pre-war system of rates.
CHAPTER VIII.

CONCLUSION.

The control of wages was a task, it has been necessary to insist, which the Ministry of Munitions undertook reluctantly. It was incidental to the Ministry's main purpose of organising production; it was not undertaken or developed in accordance with any preconcerted policy; its sole objects were industrial peace, the enforcement of the limitation of profits and the safeguarding of munitions workers' interests under dilution. The Ministry's statutory powers were correspondingly limited, being taken piecemeal to meet new problems as they arose, and its regulative work was confined to munitions employment. The original policy of the Government, worked out by the Board of Trade and the Committee on Production, was to disturb as little as possible the ordinary methods of settling wages, to leave as far as possible all necessary changes to be negotiated between employers and employed, and to interfere only to accelerate negotiation and to substitute arbitration for the lock-out and the strike. The Ministry of Munitions' control of wages was undertaken within the limits laid down by that policy.

Wages, however, are not susceptible of sectional treatment. Munitions employment, wide as it became, was never so wide as the whole field of employment; and the influences affecting wages could be controlled only if the whole field of employment was taken as the area of regulation. The relation between the wages of different classes and grades of workers is so intimate that interference at one point is bound to have reactions at others. The choice lay between the control of wages generally and a policy of abstention from the fixing of any rates. The original policy of the Government took the latter course. It sought to leave intact all the old relations, and, only substituting arbitration by a central authority for the strike and lock-out, to allow wages to be adjusted to changing conditions in the same way as in peace. Just as before the war, the Government relied on collective bargaining to fix rates. Arbitration acquired a new importance; but it was free from any administrative control at first, and no other provision was made for the changes and adjustments that were to prove necessary.

The policy might have served if the duration of the war had been short; it proved impossible to persist in it when the duration extended into years. The main influences that made it impossible to persist were two; the economic changes to which wages had to be adjusted were too numerous, too rapid and too extensive for the machinery of collective bargaining and arbitration to cope with; and the Cabinet, by its embargo on advances, in the autumn of 1915, stopped the process of adjustment.
The changes to which it was necessary to adjust wages affected women more than men; the conditions of women’s employment were revolutionised. But the men’s wages system was subject to unprecedent ed strains. On the one hand, the cost of living rose rapidly and compelled the most unselfish to seek advances; on the other, the demand for labour became, first, slack except in armament and shipbuilding centres, then keen for certain classes of labour, and finally intense over almost the whole field of industry. Old anomalies, such as the variation in rates from district to district or from trade to trade for roughly the same grade of skill, became exaggerated, and new anomalies, such as the skilled time-worker’s grievance, were created. The first breach in the policy came at the point at which the greatest economic change had occurred, in the case of women taking skilled men’s work. The circular L.2 was a breach in the policy because it substituted the fixing of wages by administrative order for the settlement of claims by collective bargaining and administration.

The embargo on further advances in wages stopped the process of adjustment, but it did nothing to stop economic change. The cost of living continued to rise and the demand for labour continued to grow. The awards of the Committee on Production ceased to be arbitration awards in the true sense. The committee became virtually an organ of the executive Government, giving effect to the executive’s will in the guise of awards. A member of the committee pointed out the danger of this course;¹ and the workpeople whose claims were refused had no difficulty in perceiving the difference between the committee’s hearings and awards during this period and the ordinary process by which an impartial arbitrator measures the strength of conflicting claims and anticipates by his judgment the stable compromise that would otherwise have been reached after a strike. They protested vigorously, and their faith in arbitration was permanently shaken.²

The embargo amounted to a further substitution of administrative control of wages, on considerations of financial policy, for arbitral determination by consideration of bargaining strength. It represented the second policy of the Government. The first had been to adjust wages from time to time to changing conditions; the second was to stop adjustment to general changes and to permit only the removal of small sectional and local anomalies. The economic changes that made it difficult to persist in the first policy, *a fortiori*, made the second impossible; the interruption in the process of judicial arbitration had produced a situation in which it was idle to attempt to revert to that method.

The rise in the cost of living and the growing strength of labour made it impossible to maintain the embargo for more than eight months, and the Cabinet authorised the Committee on Production to take into consideration in making its awards changes in the cost of living and other relevant factors. This initiated the policy which was to last till the end of the war. The committee instituted, or rather resumed,

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¹ Sir George Gibb. (Hist. Rec./R./342/7.)
² See above, Chap. III.
the practice of making advances to meet the increase in the cost of living; the Ministry of Munitions and other Departments and tribunals exercising functions of wage-control followed suit; and the policy was systematised in 1917 when the practice of periodical hearings and national awards was adopted.

In taking the cost of living as the main factor to be considered the committee was responding to the most frequent appeal made before it. By comparison no other argument brought by the work-people’s representatives before the committee was of any importance. Simultaneously, the political spokesmen of the Labour Movement demanded Government action to check the increase in cost of living. The index numbers of food prices and cost of living published monthly in the Labour Gazette were the most frequently quoted figures in all arbitration hearings. A committee, of which Lord Sumner was chairman, appointed on 21 March, 1918, and reporting on 23 October, established the fact that the actual expenditure of the working classes had gone up less than the Labour Gazette figures indicated, and that the index number was based on family budgets that were no longer representative; but the report did not check the use of the Labour Gazette figures, and personal experience was a more important source of unrest than any figures.

A general policy of adjusting wages to cost of living and ignoring so far as possible all other influences was, therefore, almost forced upon the Government. The Committee on Production under this policy was something less than a judicial court, since the principles on which it had to make its awards were laid down for it by the executive Government; it was more than a mere part of the administrative machine, since it was free to interpret and apply those principles according to its own judgment. Thus it was able to smooth out a large number of inequalities, regularise advances, and check divergencies that free bargaining would have produced. It gave the workpeople less probably than they could have got had they been free to bargain; but the strike was illegal and the movement of labour in search of higher wages was checked by the leaving certificate provisions of the first Munitions Act. Where these did not apply, as in building, and in the munitions industries after they were repealed, the Committee on Production found it difficult to make its control effective.

The policy was difficult of execution for another reason. Its necessary basis was a system of wage-relations, generally accepted as fair, which only required adjusting to the increased cost of living. The pre-war system of rates and relations offered such a basis. Though it was illogical and full of anomalies and did not give the country the assurance of industrial peace, it had the sanction of custom and consequently a stability that made it a suitable basis. Had it been taken as a basis, wages effectively controlled, and comprehensive and uniform adjustments made over the whole field of industry from the outbreak of war, the policy might have been carried through. Then, too, it would have been possible at the end of the war to revert to the status quo by making any modifications in war bonuses called for by changes in the cost of living, and merging these in new standard rates, on the basis
of which bargaining could begin afresh. Rates and wage relations would have been, as it were, frozen, and the influence of war conditions on wages, with the exception of changes in the cost of living, excluded. Some such ideal was implicit in all the attempts to control wages during the war.

Unfortunately, the policy was only reached after two or three years of experiment. Because State control of wages was undertaken reluctantly and piecemeal, the 1914 basis had been lost and no new basis, generally accepted as that of 1914 was accepted, established in its stead.

Three factors in particular combined to prevent any uniform relation of wages during the war to pre-war standards. In the first place, sections of workpeople exploited the bargaining power which the shortage of labour and the country's needs put into their hands, and secured advances far more than proportionate to the increase in the cost of living. The embargo was not completely effective. Strikes, though illegal, took place and attained their object. Employers "jumped" the standard rate by granting concealed advances in the forms of fancy bonuses to individuals and sections. In the second place, wide extensions of systems of payment by results, into fields in which there was little basis in experience for the setting of rates, resulted in fortunate individuals and classes of workers making earnings that bore no relation to their time-ratings and upset all established standards of the proper relations between the wages of different grades and classes of worker. No influence did more than this in the last eighteen months of the war to excite industrial unrest, by awakening cupidty and suspicion of exploitation, and the grant of the special $12\frac{1}{2}$ per cent. bonus to certain skilled time-workers failed to redress the disturbance in the balance between the wages of different classes. In the third place the immense transfers of workers from one occupation to another and from one district to another accustomed individuals to wages which they would never have commanded in their original occupations, and gave them new conceptions of their economic value.

These influences could not exert their full effect so long as the free movement of labour was prevented by the leaving certificate. So soon as that was removed, the Government found itself deprived of the power to impose any real control on the movement of wages. The industrial disorder of the winter of 1917–1918 was attributed to the $12\frac{1}{2}$ per cent.; but that bonus was only an attempt to anticipate a demand which was certain to be pressed and which the Government had deprived itself of the power to resist. Before any control of wages could be restored, power to restrict the movement of labour had to be recovered. The device adopted was the use of Regulation 8A (b) under the Defence of the Realm Act, a device used only sparingly, but with the same result of labour opposition as the leaving certificate had provoked. The control of wages, indeed, could be effective only if the Government was prepared to control and "ration" labour, just as the control of food prices was possible only when the Government controlled and rationed the supply of food.
Any such policy was certain to receive the most violent labour opposition; but some such policy was being forced on the Government at the end of the war by the breakdown of the ordinary regulation of wages by competitive bargaining.

Finally, control was not applied systematically. There was no central authority endowed with statutory powers to regulate wages generally. On the contrary, the work of control was divided between the Committee on Production and half a dozen Departments, whose spheres of influence were not always clearly defined, and whose overlapping led to the Cabinet's attempts to compel co-ordination described in the last chapter. Had there been adequate administrative machinery, the intrinsic difficulties of the adjustment would still have been enormous, owing to the complication of pre-war wages. As the head of the Wages Section said in a memorandum on the situation created by the 12½ per cent. bonus:

"The Ministry is concerned in some ten principal industries and about 30 subsidiary ones. Wage systems involve technicalities, anomalies, complex inter-relations and illogical traditions, with which only some years' experience can bring any real acquaintance. The men with such experience simply do not exist. The staff to deal centrally with wages in 40 industries, therefore, cannot be found. But the trend of events in the last few weeks has been to bring an infinity of problems to London for instant adjustment."

It is not surprising, therefore, that the Committee on Production, even with the support of the Ministry of Labour and the Wages Section of the Ministry of Munitions, failed to control the movement of wages completely. From the middle of 1917 onwards there were increasing complaints of employers exceeding the district rate, workpeople extracting uneconomic wages, and normal relations between the wages of different grades and classes being disturbed.

As the difficulty of control became greater, the motives of control became stronger. At first an incident in a larger task, wages control became an end in itself. It was not merely industrial peace, but stimulus to output and financial economy that came to be considered, and the administrative organisation devoted to wages control grew correspondingly. The Wages Section of the Ministry of Munitions became a numerous and important section. It developed an extensive local organisation. A parallel development took place in the Shipyard Labour Department. A separate Ministry of Labour was established, and the problem of co-ordination taken up by the War Cabinet. The only change of policy, however, was an extension of direct control by administrative action in the issue of the 12½ per cent. bonus to time-workers and the use of the Defence of the Realm Regulations 8 A (b), to compel employers to observe conditions and wages laid down by order. Every authority concerned with wages came to recognise that the difficulty of securing order and peace was that the pre-war rates

1 L.R. 5997/58.
and relations had been upset, but no one could find a way of restoring them. The Ministry of Munitions' statutory powers were inadequate, and the expert staff needed for systematic control could not be found. On the eve of the Armistice the Minister declared that the problem of control was insoluble during the war.

"Here we are in the fifth year of the war, and we seem to be muddling through once again; but of course, we did not start on this war with cut-and-dried plans for dealing with the social and labour questions that might arise. We found our way into it, we wandered into it, and the great strength of the country and the individual quality which exists over the country have carried us along and we are coming through at an enormous cost with terrible waste and long delay—victoriously. But, looking round upon the field of battle in industry, I suppose you see what you see on every battlefield—chaos, wreckage, confusion and waste on every side. I do not believe myself that during the continuance of the war you will get a good solution of these labour difficulties; for what are you going to base yourselves on? Hitherto, there have always been the power of workmen to strike, the power of employers to lock out, and the power of the community to do without the product in the interval. That has been the foundation. But where is it now? There is no such foundation. It has gone. As I have repeatedly said, a great many employers are not directly interested in keeping wages within reasonable bounds; they are far more interested in boosting up their particular product. The workmen and even the large majority who are patriotic say: 'Why should we not get our share of all that is going?' and the State has not yet found itself capable or competent or strong enough to intervene with broad, clear rulings which have been obeyed. Even in Germany, with all their authority and power over the individual, they have had a good deal of industrial disorder. Here we have complete industrial disorder from that point of view. The only thing is, we have got great production, and we are winning the war. That is all there is to say on the other side.' I tell you frankly (we are speaking quite confidentially) that in my opinion, until the conditions of economic bargaining are restored to their freedom, I doubt very much whether you will get a satisfactory result or a clear-cut basis."  

As the inadequacy of the existing policy became obvious, a new policy shaped itself in the minds of the officials of the Ministry of Munitions. It consisted in establishing a new set of standard rates altogether, and so providing a basis on which effective control could be established. The same proposal had been put forward when the 12½ per cent. bonus had become impossible to administer in its original form; in the building industry, when the Ministry of Labour attempted

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1 See above, Chap. II.
3 See above, p. 61.
4 L.R. 5997/58.
of systematise wages in the spring of 1918; by the Finance and Contracts Officers Committee in December 1917, when it was facing the difficulty of reimbursing employers for advances in wages due to Government action. The contract officers suggested taking the rates of 31 December, 1917; the officials more directly concerned with wages control proposed to establish new rates to be determined by joint committees of employers and workpeople acting under the supervision of the Committee on Production as central co-ordinating authority. The war came to an end before any steps were taken to give effect to these proposals, and they involved perhaps, an overt and direct control of wages from which the Government might have shrunk. But they point to the fundamental difficulty of State control of wages—the basis, namely, on which rates shall actually be fixed.

Before the war, we saw, the Government carefully refrained from taking the responsibility of fixing rates. The responsibility was left to the employers who paid and the workpeople who received wages. The policy of making adjustments in pre-war rates was due to the same desire to avoid the responsibility of fixing rates. When it could not be avoided, as in the case of the Women’s Wages Orders, the rates fixed had some relation to existing rates, established by the ordinary methods of bargaining, and were varied on the advice of a special arbitration tribunal. In all three Munitions of War Acts, careful provision is made for accepting the results of ordinary collective bargaining, wherever it could be preserved, and the proposal referred to above would have thrown on each trade the primary responsibility for establishing new rates in place of the pre-war standards that had been lost.

The war virtually forced the State to take this responsibility which it had so persistently avoided. The commercial conditions of war-time weakened the normal incentives of employers to resist wage claims. The munitions levy and excess profits duty still further weakened them. The arrangement by which Government contractors were enabled to claim reimbursement for any increase in cost due to wage advances granted by any Government authority finally destroyed the pre-war counterweight to the wage-earner’s demands. The conflict of interests was no longer between employer and employee, but between the State, as the consumer of the greater part of the industry’s products, and the worker. The employer working for profits is normally a shock-absorber, moderating and concealing the conflict of interests between worker and consumer; the limitation and guarantee of profits turned him into a shock transmitter. The bargains by which wages were settled, in other words, had to be struck between workpeople and the State.

Now the Government cannot bargain about wages like a private employer. Once it begins to fix wages by administrative order, it has to accept responsibility for this administrative action, as for the rest of its administration. Anomalies which are tolerated, because they are traditional or customary, so long as wages are settled by

private bargaining, are no longer tolerated when the State has taken responsibility for them. Consistency is demanded in the action of Government Departments even when inconsistencies were tolerated in private employment. The State is expected to base its administrative action on some more or lees definite principles of justice or expediency, by reference to which its action can be justified if challenged.

The obstacle to any systematic settlement of wages by an administrative authority is the absence of any such principle, by reference to which services can be valued. People talk of a "fair wage," but no two parties to a difference agree, or can give a concrete definition of that wage. It is the absence of such a principle that explains the attitude of the State to wages before the war. The State would insist on uniformity of payment, as it did by the Fair Wages Clause in public contracts; it would enforce the determinations of representative industrial bodies called into being by itself, as in the case of Trade Boards; it would facilitate collective bargaining and supplement it by the provision of facilities for voluntary arbitration, as it did through the activities of the Chief Industrial Commissioner's department under the Conciliation and Arbitration Act of 1896. But the State, if it could avoid it, never fixed a rate; because the State is always expected to justify its decisions by reference to some generally accepted principle, and there are no such principles in the valuation of services.

Wages depended on the relative bargaining strength of the parties to the wage contract, which in turn was influenced by organisation, but depended ultimately on the need of the labour in the market and the possibility of securing a price for the industry's products that would cover the cost of meeting labour's claim. The conflicting interests of worker and employer—or, to go behind them, of producer and consumer—did not often result in an actual stoppage, because the two parties were in constant contact with each other and could gauge to a nicety the exact point to which it was possible to press a claim; and they could, sometimes with the aid of an experienced arbitrator or conciliator, ascertain the resultant of the forces in conflict without an overt trial.

There was and is no generally accepted answer to the question, "What is a just wage?" There can be discerned in the decisions of the Committee on Production and the Government Departments tentative approaches to a determination of wages by reference to ethical or political principle. The award of flat-rate advances instead of advances proportionate to normal earnings was an advance towards equality of remuneration, the influence of which, in spite of the efforts of the higher wage workers to restore the pre-war disparity, is likely to be permanent. Again, in the choice of cost of living as the basis for war bonuses to the exclusion of other factors, a differentiation is implied of an element in wages that should cover and fluctuate with cost of living from another element representing the special economic value of a particular skill. Priority of importance for the purposes of the war, which might have provided a scale of absolute values on which the country might be taken as agreed, was
used for the purpose of allocating men to the combatant forces and industry, but not as a basis of remuneration.

The absence of any agreed principle on which wages could be based by authority therefore compelled the Government to adopt its policy of accepting pre-war wages and making minor adjustments in them. In practice the influence of bargaining strength could not be excluded; control and compulsory arbitration only veiled it and moderated it. A rigid control of all wages changes from the first, a single authority with statutory powers, an ungrudging grant of advances to meet the increase in the cost of living, and a strict limitation of profits from the first, might have made it possible to preserve the pre-war system of rates and wage-relations intact. Such a policy was hardly thought of, and the machinery for giving effect to it never created. The Ministry of Munitions was limited to piece-meal adjustments with its improvised machinery and an inadequate staff. Its opportunities of introducing any system into wartime wages were confined mainly to women's wages. Its wages administration was necessarily empirical and opportunistic. That any limit at all was imposed on the influence of economic bargaining strength and any order maintained in wages through the succession of economic changes that the war entailed was due in the main to the action of the Ministry.
APPENDICES.
APPENDIX I.
(CHapter I, p. 26.)

Rates and Earnings in November 1915.
(Memorandum by Mr. J. C. Smith of the Wages Section, Ministry of Munitions.)

It will be well to lay a basis for conclusions as to the effect of the War on earnings by comparing the results shown in different parts of the country, first on the average earnings of all hands in a number of shops, and next on the earnings of particular trades.

1. Whole Shops.—Here are the average weekly earnings of all hands, for a pre-war month, and a month during the war for four shops totalling over 20,000 hands.

<table>
<thead>
<tr>
<th>Name of Firm</th>
<th>Average per man.</th>
<th>Percentage Increase per man.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-war £ s. d.</td>
<td>Now £ s. d.</td>
</tr>
<tr>
<td>A. Harland &amp; Wolff, Belfast</td>
<td>1 14 0</td>
<td>2 2 7</td>
</tr>
<tr>
<td>B. Ruston Proctor, Lincoln</td>
<td>1 8 11</td>
<td>2 0 5</td>
</tr>
<tr>
<td>C. Clayton &amp; Shuttleworth, Lincoln</td>
<td>1 9 5</td>
<td>2 3 7</td>
</tr>
<tr>
<td>D. Whitehead Torpedo Works, Weymouth</td>
<td>2 11 9</td>
<td>4 8 3</td>
</tr>
</tbody>
</table>

These figures, it must be remembered, cover all classes of employees—Wood-workers, as well as Iron-workers, Labourers and Machine-men, as well as fully skilled hands. The excessive difference in shop D is unique, so far as is known, for a whole shop. The general average probably lies between A. and B.

2. Separate Trades.—The nominal increase in rates in the various Engineering and Shipbuilding trades has been fairly uniform, and, in view of the enhanced cost of living would not appear excessive. Here are the Birmingham Engineering Trade rates for July, 1914, and November, 1915:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per week.</td>
<td>per week.</td>
</tr>
<tr>
<td>Toolmakers</td>
<td>38s.</td>
<td>45s.</td>
</tr>
<tr>
<td>Toolturners</td>
<td>38s.</td>
<td>45s.</td>
</tr>
<tr>
<td>General Turners</td>
<td>38s.</td>
<td>43s.</td>
</tr>
<tr>
<td>Toolfitters</td>
<td>38s.</td>
<td>45s.</td>
</tr>
<tr>
<td>General Fitters</td>
<td>38s.</td>
<td>43s.</td>
</tr>
<tr>
<td>Planers</td>
<td>38s.</td>
<td>40s.</td>
</tr>
<tr>
<td>Shapers</td>
<td>38s.</td>
<td>40s.</td>
</tr>
<tr>
<td>Millwrights</td>
<td>42s.</td>
<td>45s.</td>
</tr>
<tr>
<td>Capstan Toolsetters</td>
<td>40s.</td>
<td>45s.</td>
</tr>
<tr>
<td>Borers and Slotters</td>
<td>40s.</td>
<td>43s.</td>
</tr>
<tr>
<td>Sectional Fitters</td>
<td>40s.</td>
<td>45s.</td>
</tr>
<tr>
<td>Gauge Makers</td>
<td>42s.</td>
<td>48s.</td>
</tr>
<tr>
<td>Universal Millers</td>
<td>40s.</td>
<td>45s.</td>
</tr>
<tr>
<td>Semi-Skilled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drillers</td>
<td>32s.</td>
<td>40s.</td>
</tr>
<tr>
<td>Millers</td>
<td>32s.</td>
<td>40s.</td>
</tr>
<tr>
<td>Capstan Operators</td>
<td>32s.</td>
<td>40s.</td>
</tr>
<tr>
<td>Brass Turners</td>
<td>35s.</td>
<td>80s.</td>
</tr>
</tbody>
</table>

& upwards.
But as an index to actual earnings these nominal rates are fallacious, in as much as they give no indication of piece rates or of overtime. Here are comparative totals of actual earnings in four Engineering and Shipbuilding works, one in Belfast and three on the Tyne:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitters</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
</tr>
<tr>
<td>Turners</td>
<td>2 1 3</td>
<td>2 6 2</td>
<td>2 15 5</td>
<td>2 3 1</td>
</tr>
<tr>
<td>Labourers</td>
<td>1 0 0</td>
<td>1 5 10</td>
<td>0 2 1</td>
<td>1 4 9</td>
</tr>
<tr>
<td>Machinists</td>
<td>1 14 0</td>
<td>3 15 10</td>
<td>1 13 3</td>
<td>1 13 1</td>
</tr>
<tr>
<td>Sheet Iron Workers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Joiners</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Painters</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Angle Iron Smiths</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Smiths</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Plumbers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Platers</td>
<td>5 0 0</td>
<td>4 6 2</td>
<td>7 11 0</td>
<td>2 19 2</td>
</tr>
<tr>
<td>Rivetters</td>
<td>3 10 0</td>
<td>3 4 9</td>
<td>13 11</td>
<td>3 2 3</td>
</tr>
<tr>
<td>Drillers</td>
<td>2 17 6</td>
<td>1 3 10</td>
<td>7 14 11</td>
<td>—</td>
</tr>
<tr>
<td>Baulkers</td>
<td>3 0 0</td>
<td>2 6 3</td>
<td>10 3 10</td>
<td>—</td>
</tr>
<tr>
<td>Carpenters</td>
<td>1 14 0</td>
<td>3 1 11</td>
<td>2 17 10</td>
<td>—</td>
</tr>
<tr>
<td>Boilermakers</td>
<td>2 4 0</td>
<td>2 3 7</td>
<td>3 3</td>
<td>—</td>
</tr>
</tbody>
</table>

Of the above returns, those from Messrs. Workman, Clark's are complete, i.e. they comprise all hands; the others show averages of groups or shops. The returns for the Clyde Shipbuilding Industry are so complete as to deserve separate tabulation.

**FOR CLYDE DISTRICT.**

<table>
<thead>
<tr>
<th>Trade</th>
<th>No. of men.</th>
<th>Average wage per man.</th>
<th>Percentage increase per man.</th>
<th>Average No. of hours worked.</th>
<th>Percentage increase.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitters</td>
<td>3,813</td>
<td>4,637</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>43.5</td>
</tr>
<tr>
<td>Turners</td>
<td>1,139</td>
<td>1,410</td>
<td>2 7 9</td>
<td>3 4 3</td>
<td>34.6</td>
</tr>
<tr>
<td>Shipwrights</td>
<td>2,125</td>
<td>2,287</td>
<td>2 4 4</td>
<td>2 13 6</td>
<td>20.7</td>
</tr>
<tr>
<td>Joiners</td>
<td>1,933</td>
<td>1,823</td>
<td>2 1 9</td>
<td>2 9 1</td>
<td>17.6</td>
</tr>
<tr>
<td>Cabinetmakers</td>
<td>34</td>
<td>23</td>
<td>2 0 2</td>
<td>2 5 1</td>
<td>12.2</td>
</tr>
<tr>
<td>Woodworking Mchns.</td>
<td>291</td>
<td>252</td>
<td>2 0 1</td>
<td>2 6 1</td>
<td>15.0</td>
</tr>
<tr>
<td>Cabinet Mchns &amp; Polishers</td>
<td>80</td>
<td>59</td>
<td>1 19 6</td>
<td>2 3 10</td>
<td>11.0</td>
</tr>
<tr>
<td>Painters</td>
<td>405</td>
<td>417</td>
<td>2 9 7</td>
<td>2 10 7</td>
<td>2.0</td>
</tr>
<tr>
<td>Ships smths</td>
<td>418</td>
<td>441</td>
<td>2 10 8</td>
<td>3 6 3</td>
<td>30.75</td>
</tr>
<tr>
<td>Sheet Ironworkers</td>
<td>269</td>
<td>423</td>
<td>2 3 1</td>
<td>2 12 0</td>
<td>20.7</td>
</tr>
<tr>
<td>Drillers &amp; Hole Cutters</td>
<td>937</td>
<td>972</td>
<td>2 7 10</td>
<td>3 5 8</td>
<td>37.3</td>
</tr>
<tr>
<td>Tinsmths</td>
<td>48</td>
<td>60</td>
<td>2 1 9</td>
<td>2 18 5</td>
<td>40.0</td>
</tr>
</tbody>
</table>

It will be seen that these figures account for more than 12,000 men. I have also before me a table showing the time-keeping and earnings of 495 riveting squads. These show an average of 48 hours worked per week, including overtime and Sunday work, and an average rate per hour per squad of 5s. 10d., which allowing for the Holder-up and Rivet-heater, leaves the approximate earnings per Riveter at 1s. 10d. per hour. These averages, however, are not wholly reliable, inasmuch as the hours worked—which range from 6½ to 89½—may sometimes represent less than a week's work, and at other times more. A more reliable, if
less succinct method is to take the "median range," i.e., the range of weekly earnings, within which fall the majority of the men.

The median range here, which accounts for three-fifths of the squad runs from £2 19s. 4½d. to £5 9s. 4½d. per week, per Riveter, the actual median being £4 4s. 4½d.

Analysis of these tables and of others like them shows, in the first place, a wide divergence between nominal rates and actual earnings. Whereas the men at Workman Clark's during 1915 got a single rise in rates of 3s. to 5s. 6d. on time or ten per cent. on piece, their earnings show increases varying from 30 per cent. for labourers and machinists, to 90 per cent. for platers, and 135 per cent. for riveters. The Clyde figures show a smaller divergence between increased rates and increased earnings.

The causes of this are:

(a) Overtime.—Here a singular fact comes to view. Though every class of men in Workman Clark's showed overtime during 1915, varying from three hours per week on an average for Labourers to 18 hours for Boilermakers, "not a single class on the average made up a full normal week of 54 hours; the Turners came nearest with 53; the Boilermakers had only 48. On the Clyde the Wood-workers all over show very little increase, Cabinet Machinists and Polishers show actual decreases in time worked. In spite of this all trades show an advance in earnings.

There has undoubtedly been some abuse of the overtime system, men working on Sunday and playing on Monday.

(b) High Piece Prices.—The main reasons for the abnormally high earnings of the Platers and Riveters at Workman Clark's probably lies in the fact that much of Workman Clark's work is Admiralty repairs on the "time and line" basis. There has been no such abnormal rise in these trades on Tyneside, nor in inland shops.

(c) General Speeding-up.—The confidence of the workers that piece rates would not be cut out as the result of increased production, has resulted in a general—though not universal—speeding-up, which has produced remarkable results in some ways.

At Messrs. Kynochs there are 212 Tool Makers, whose average earnings in July, 1914, were 38s. per week. In a recent week 57 of these men earned £5 and over; 34 earned £7 10s. and over; five earned £10 and over, and one earned £12 10s. The Manager attributes these results to speeding-up.

In the second place it is evident that even in the Engineering and Shipbuilding industries all trades have not profited equally by the war. Painters, Plumbers and Woodworkers generally have not advanced much. The Painters in the Clyde Shipyards have only advanced 1s., and the Carpenters at Elswick actually show a drop. Boilermakers have not advanced so much as might have been expected, except on Admiralty work.

At Ruston & Proctor's the Boilermakers show an advance of only 17½ per cent., while Fitters, Turners and Machine-men show 38½ per cent. Very large earnings are made by Tool Makers and Setters-up. One instance has been cited from Birmingham. The following table is for a London firm, Messrs. Vandervell and Co., of Acton.

**AVERAGE WAGES EARNED BY VARIOUS TRades.**

<table>
<thead>
<tr>
<th></th>
<th>Ordinary 52 hr. wk.</th>
<th>Rate per hr.</th>
<th>Pay with Overtime</th>
<th>Add extra for nightwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toolmakers</td>
<td>£3 9 4 s. d.</td>
<td>1 4 s. d.</td>
<td>£6 2 8 s. d.</td>
<td>30 0</td>
</tr>
<tr>
<td>Fitters</td>
<td>2 6 7 s. d.</td>
<td>10 1 s. d.</td>
<td>3 9 7 s. d.</td>
<td>30 0</td>
</tr>
<tr>
<td>Turners</td>
<td>2 16 4 s. d.</td>
<td>1 1 s. d.</td>
<td>3 15 3 s. d.</td>
<td>30 0</td>
</tr>
<tr>
<td>Drillers</td>
<td>1 6 0 s. d.</td>
<td>6 s. d.</td>
<td>2 15 9 s. d.</td>
<td>20 0</td>
</tr>
<tr>
<td>Setters-up</td>
<td>3 0 8 s. d.</td>
<td>1 2 s. d.</td>
<td>5 16 0 s. d.</td>
<td>30 0</td>
</tr>
</tbody>
</table>
Toolmakers, of course, are highly skilled workmen, but it is doubtful whether
the highly skilled workman in general has profited so much by the War as the
unskilled or semi-skilled men, who have been put on to turning and other opera-
tions on shell.

Of 57 unskilled and semi-skilled men employed by the Projectile Co., Wandsworth Road, London, on Machine-men's work, such as turning and boring shells, fitting bushes, etc., the actual rate over an average of nine weeks ran from 1s. 3d. to 1s. 9½d.; the average earnings of each of these men was £4 3s. per week. These
men comprised about a quarter of the hands employed by the Company on this
work and doubtless were not the most inexpert; still the hourly rate runs very high
for Machine-men's work.

3. Individual Workers.—For the sake of completeness I add a few instances
of exceptional earnings made by exceptional men in favoured trades.

At the Westinghouse Co., King's Cross, the wages earned by the eight top men
ran from £10 13s. 8d. to £19 10s. 2d. The most highly paid Riveters of the Clydeside squads, already cited, made £9 4s. 4½d., but this was for a week of 79½
hours.

A Toolmaker in Birmingham is known to have made £15 in one week, and now
aims at £16.

Another Toolmaker in Coventry has made as much as £15 5s.

An Angle-smith in Dundee once made £19 16s. 3d. but from this his striker's
pay had to be deducted.

These exceptional figures, however striking as they are, are of little value
compared to the more extensive data given above.
APPENDIX II.

(CoP/21, p. 38.)

Circular L.3.

MUNITIONS LABOUR SUPPLY COMMITTEE.

Recommendations relating to the Employment and Remuneration of Semi-skilled and Unskilled Men on Munition Work of a class which prior to the War was customarily undertaken by Skilled Labour.

(Notes:—These Recommendations are strictly confined to the war period and are subject to the observance of Schedule II of the Munitions of War Act, reprinted in the Appendix.)

GENERAL.

1. Operations on which skilled men are at present employed, but which by reason of their character can be performed by semi-skilled or unskilled labour, may be done by such labour during the period of the war.

2. Where semi-skilled or unskilled male labour is employed on work identical with that customarily undertaken by skilled labour, the time-rates and piece-prices and premium bonus times shall be the same as customarily obtain for the operations when performed by skilled labour.

3. Where skilled men are at present employed they shall not be displaced by less skilled labour unless other skilled employment is offered to them there or elsewhere.

4. Piece-work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

5. Overtime, night-shift, Sunday and holiday allowances shall be paid to such machine-men on the same basis as to skilled men.

Time Ratings for the Manufacture of complete shell and fuses and cartridge cases, where not hitherto customary.

6. Where the manufacture of this class of munitions was not customarily undertaken by the establishment prior to the war, the following time ratings shall apply:

   (a) Semi-skilled and unskilled men of 21 years of age and over, when engaged as machine-men on the above manufacture, shall be paid a time rate of 10s. per week lower than the time rate for turners, including war bonuses, engaged in the engineering trade of the district, but in no case shall the rate paid to such men be less than 28s. per week of the normal district hours. This rate also includes all war bonuses already granted.

   (b) Where a semi-skilled or unskilled man of 21 years of age and over has had no experience previously of the operation he is called upon to perform, his starting rate shall be 26s. per week, which shall be paid during his period of training, but such period shall not exceed two months from the date at which he commenced work as a machine-man.

   (c) The time rates payable to setters up shall not be less than as follows:

   Setting up of fuse-making machines, 10s. per week over the current district time rate for turners.

   Setting up of shell-making machines, 5s. per week over the current district time rate for turners.

   These extras are in addition to any war bonuses which have been granted.

INTERPRETATION.

7. Any question which arises as to the interpretation of these recommendations shall be determined by the Minister of Munitions.

October, 1915.
Appendix.

MUNITIONS OF WAR ACT, 1915.

SCHEDULE II.

1. Any departure during the war from the practice ruling in the workshops, shipyards, and other industries prior to the war, shall only be for the period of the war.

2. No change in practice made during the war shall be allowed to prejudice the position of the workmen in the owners' employment, or of their trade unions in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war.

3. In any readjustment of staff which may have to be effected after the war, priority of employment will be given to workmen in the owners' employment at the beginning of the war who have been serving with the colours or were in the owners' employment when the establishment became a controlled establishment.

4. Where the custom of a shop is changed during the war by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the time and piece rates paid shall be the usual rates of the district for that class of work.

5. The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings.

6. A record of the nature of the departure from the conditions prevailing when the establishment became a controlled establishment shall be kept, and shall be open for inspection by the authorised representative of the Government.

7. Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired.

8. All differences with workmen engaged on Government work arising out of changes so introduced or with regard to wages or conditions of employment arising out of the war shall be settled in accordance with this Act without stoppage of work.

9. Nothing in this Schedule (except as provided by the fourth paragraph thereof) shall prejudice the position of employers or persons employed after the war.
APPENDIX III.

(Chapter V, p. 128.)

Difficulty of Enforcing Awards on Methods of Payment.

A case which remained unsettled for some months during 1917, but ended in a tacit victory for the men, was that of the Brightside Foundry & Engineering Company, Sheffield.1

Here Sir W. Mackenzie had on 10 March, 1917, ruled, in deciding in a difference between the Sheffield Engineering Employers' Association and the Friendly Society of Ironfounders, that the refusal of the men employed by this firm to work piece-work in making ingot moulds exceeding four tons in weight, was a form of limitation of production.

On 25 March, a mass meeting of local iron-founders, considering this award, voted; "Our members refuse to accept any further extension of piece-work in Sheffield; further, if any action is taken to enforce this system of working, then the onus of responsibility will be on those who tried to enforce the award if any trouble arises." (The Investigation Officer who reported this to the Department added that the vote was taken at 3 p.m. on Sunday, just after many of the men had come out of their public-houses, and they were not unanimous. The firm wished to know where they stood. The shop stewards said that if piece-work were introduced, the men would strike). The following chronicle records the rest of the negotiations:—

18 April.—The men still refused to accept the award. Mr. Wolfe saw a deputation of them, and a letter was sent to the Secretary of the Society.

24 April.—The Ironfounders' Society replied that the matter was adjourned until after the National Conference on payment by results, which was being held that week.

29 May.—The Society again refused to accept the award.

20 June.—Mr. Kellaway saw a deputation of the men and explained that (a), the award must be obeyed, but that (b), conditions as to the safeguarding of the time-rate would be enforced, and that if after a reasonable trial objections continued, the question would be reconsidered.

22 June and 7 July.—Letters were sent by the Department to the Society urging the adoption of the award.

12 July.—The Society wrote that a ballot of the whole Society was to be taken on the matter.

29 August.—A letter was sent by the Department asking for the result of the ballot.

26 September.—The Society wrote that a ballot vote of the Society was being taken that day. (It was adverse to the award.)

3 October.—"L." Committee considered the case, and held that any attempt to introduce payment by results under Part I. of the original Munitions Act was most inadvisable.

19 October.—"L." Committee considered the refusal of workmen employed by the Brightside Foundry, Sheffield, to accept the award of Sir W. Mackenzie, K.C. Attention was drawn to Sir D. Shackleton's minute of 16 October, expressing the opinion that in view of the difficulty ("which difficulty I think has been increased by the recent order relating to time-workers"), of enforcing awards introducing payment by results, and of the result of the ballot taken by the Trade Unions, no good purpose would be served by the

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1 C.E. 236/4 cf. the cases of Tweeddale & Smalley and E. Allen, Sheffield.
question being again raised. In view of the lapse of time since the date of the award, the Committee were of the opinion that no further action could profitably be taken."

22 November.—The Department informed the Engineering Employers' Federation, which had specially inquired into the matter on behalf of the Sheffield Engineering Employers' Association, that "after consultation with the Ministry of Labour," it was held to be unprofitable to do more in the matter.

29 November.—The matter was finally discussed by the Employers' Advisory Committee, when Sir T. Munro asked how it was possible to enforce the award. "I speak," he said, "with some feeling on the point, because I was one of the arbitrators who first gave a decision that if they did not go on piece-work it would mean a reduction of output, but I have grave doubts myself whether, if the men refuse to accept awards, the Government or anybody else can do anything to compel the men to go on piece." Sir George Carter, (Shipbuilding Employers' Federation), agreed that it was impossible to enforce such an award.1

1 L.R. 5581/14.
APPENDIX IV.

(Chapter V, p. 139.)

Proposals for the Regulation of Payment by Results.

Agreed on by the Engineering Employers' Federation and the Amalgamated Society of Engineers, and suggested as a Second Schedule to the 1917 Amendment Act: 15 June, 1917.

Systems of Payments by Results.

1. In all cases the time rate of the workmen concerned shall be guaranteed irrespective of earnings.

2. Over-time and nightshift and Sunday and holiday, and all other recognised allowances, shall be paid in addition to earnings under any systems of payment by results on the same conditions as already prevail in the trade and district in question for time work.

3. The price to be paid or basis time to be allowed either for a new job or for an altered job shall be fixed by mutual arrangement between the employer and the workman who is to perform the work or by such other methods as now exist or may hereafter be established by agreement in any trade or district.

4. No piece-work price, bonus or basis time once fixed may be altered unless the material, means, or method of production, is changed.

5. When the material, means, or method of production, is changed, and the employer desires a modification in price or basis time, the modification shall in no case be such as to effect a reduction in the earnings of the workers concerned.

6. When piece-work bonus or basis time system is in operation, and an employer desires a workman to undertake a job for which no price or basis time has previously been fixed, the employer shall, either before or as soon as possible after the job has been given out, see the workman with a view to agreement in accordance with the terms of this Schedule.

7. It is recognised that in the case of a new job or an altered job the workman may be unable to carry out the work as expeditiously as on repeat jobs. In all such cases the employers shall make an allowance on the job to the workman according to the necessities of the case. Such allowance shall be based on the average earnings of the workman concerned for the previous months.

8. In the event of a workman taking exception to any price or basis time allowed and being unable to arrive at a settlement, the matter shall be dealt with by a deputation of workmen consisting of the workman affected and two others engaged in the branch of trade in the shop concerned, who shall endeavour to effect a settlement with the management within seven days.

9. All settlements shall be retrospective to the commencement of the job on which the question is raised.

10. No debit balance shall be carried forward beyond the weekly or other mutually recognised period of settlement.

11. All balances and wages shall be paid through the office in proportion to the time and time rates of the workman or workmen employed on the job.

12. The employers shall in all cases supply the workman with a card stating the nature of each job and the price or basis time allowed, such card to be retained by the workman for reference until completion of the job.
APPENDIX V.

(Chapter VI, p. 174.)

Documents illustrating the Skilled Time-workers' Bonus:

1. Interim Report of Chairman of Skilled Day-workers' Committee.

1. The proposals finally put forward by the Employers are contained in Schedule A attached; those by the Trade Unions in Schedule B.

2. The differences between the two appear generally to be capable of adjustment on lines that would enable the Committee to present to the Minister an unanimous report, which would, it is hoped, remedy the grievance existing and also prove acceptable in the national interest. The obstacle in this is paragraph VII of the Employers' proposals which is as follows:

   "The foregoing provisions except those contained in Clause 1 shall not apply in cases where workmen have been given the opportunity of working on a system of payment by results, etc."

3. The Employers insist on this paragraph as a condition precedent; the Trade Unions refuse even to discuss it.

4. On behalf of the Employers it is urged:

   (a) That the paragraph is essential in the national interest in order to increase production.

   (b) That it is the duty of the Committee to pass it seeing that the Committee is specially directed to keep down expense and to secure an increased output of munitions.

   (c) That an extension of piece work can best be secured by a general bargain, covering the whole industry.

   (d) That unless this paragraph is agreed to, the Trade Unions or their branches will prevent their members going on piece, even where they wish to do so.

   (e) That the Employers only suggest piece work in cases suitable for that system, and that paragraph 7 safeguards this.

5. On behalf of the Trade Unions it is urged:

   (a) That an extension of piece work is outside the Committee's terms of reference.

   (b) That even if it is within them it is not the business of a Committee, set up to deal with the question of the abolition of Leaving Certificates, to settle a big question like the extension of piece work.

   (c) That the question can never be settled nationally or generally, but must be a matter of separate bargain in the districts.

   (d) That the Trade Union representatives have no authority even to discuss it.

   (e) That even if they agreed to it, their members would refuse to be bound by their decision, and

   (f) That great unrest would be caused thereby.

6. At the same time the Trade Union representatives expressed themselves as favourable to the extension of piece work for the purposes of the war.

7. After trying all possible methods, I am satisfied that the difference between the two parties is incapable of adjustment, and until it is dealt with in one way or another no agreement can be reached such as would enable the Committee to make an unanimous report to the Minister. It therefore seems that the matter is one for the Minister to determine without the guidance of the Committee. That being so, it will be of great assistance to obtain the Minister's decision now.
8. My own views are:

(a) That the matter is clearly within the Committee's terms of reference; but
(b) That (leaving aside the question whether such a matter can be settled by a Committee set up to consider difficulties caused by the abolition of Leaving Certificates) I do not think it can be settled generally for the whole industry, but must be a matter of individual bargain in the localities.

c) I appreciate the difficult position in which the Trade Union representatives would be placed if they agreed to it.

d) Paragraph 7 would not effect its object. It would not be accepted by the men whom it professed to bind who would without hesitation throw their leaders over; and the extension of piece work would be hindered rather than helped.

e) The unrest caused by paragraph 7 would more than outweigh the satisfaction given by the increase of wages.

9. Therefore whatever decision the Committee might come to I should find great difficulty in advising the Minister to incorporate paragraph 7 or anything like it in any Order he may make. An extension of piece work is urgent in the national interest, but it cannot be secured in this manner.

10. I suggest that the question is a proper one to be referred to the Advisory Committee.

11. This Memorandum is a personal one by myself as Chairman and has not been submitted to, and does not bind, this Committee; but it expresses the views of the representatives on the Committee of the Ministry and of the Shipyards.

12. I shall be glad to receive the Minister's directions.

JOHN W. HILLS,
Chairman.

6, Whitehall Gardens,
5th Sept., 1917.

(a) Memorandum and Proposals by Employers' Representatives.

Dear Sir,

Remuneration of Skilled Men on Day Work.

In view of the impossibility of arranging a further meeting at an early date I shall be glad if you will hand to the Chairman to give to the Minister the enclosed statement which explains the position of the Employers represented on the Committee.

Yours faithfully,

ALLAN M. SMITH.

MINISTRY OF MUNITIONS OF WAR.

__________________________________________
Departmental Committee re Time Rates of Skilled Men.
(Major Hill's Committee.)

Report by the Representatives of Employers' Interests Concerned.

5th September, 1917.

1. We believe that the Committee have considered fully all the points which bear on the questions submitted. The problems arising therefrom are most difficult of solution on account of the complexity of the issues involved.

2. The discussion has demonstrated:—

(a) The grievance alleged, owing to the difference in the earning power of the skilled man on time work and the semi-skilled man on systems of payment by results, was greater in the early stages of the war than at present.
(b) This is accounted for by the extent to which dilution has taken place on semi-skilled work and on the consequent elimination to a considerable extent of the large earnings of semi-skilled men who were skilled in the particular operation upon which they were employed.

c) In a great many instances skilled men on time work are earning greater amounts than semi-skilled men and women on payment by results.

d) The extent to which the grievance alleged exists at this date is not such as to justify any measures of an heroic nature.

e) The effect of the repeal of Section 7 of the Munitions Act, 1915, on skilled men on time work may cause a certain amount of migration of such skilled labour.

(f) The extent to which migration may take place is a matter of pure speculation.

(g) Many elements may contribute to or prevent migration—for example:

1. Workmen in lodgings may desire to return home even at less wages on account of the discomfort of the lodgings in the district in which they are working. Men might be satisfied to remain if their families could be brought to the district in which they are working. In some cases this is impossible owing to shortage of houses, in others, transport of furniture, etc., is preventative.

2. Workmen at home may desire to leave their district in order to increase their wages.

3. Time men may leave in order to obtain employment on payment by results.

4. Men employed on systems of payment by results may desire to go on time, and so on.

3. The reference by the Minister requires the Committee to have regard to the effect which any report they may make will have on output.

4. We are convinced that any proposal which involves extra payment to time workers without relation to increase of output is fundamentally opposed to the National Interest which at this time demands, and is entitled to receive, the maximum effort of everyone concerned.

5. We have, therefore, maintained this principle as a cardinal principle of any arrangement to be made.

6. At the same time we recognise that to claim, arbitrarily to enunciate the principle, would be a mistake.

7. We therefore suggest that in certain highly skilled occupations an advance in wages should be given irrespective of the question of the difference in the earning power above referred to. (See Clause I of proposals attached.)

8. We also make further proposals for dealing with the difference in earning power. (See Clauses II to VI.)

9. The proposals must be read as a whole and are subject to the principle laid down in Clause VII.

10. It is to be noted that while maintaining the principle, we do not suggest that the exercise of the principle shall, at a time like the present, be in the absolute discretion of the employers. We provide machinery to ensure a war-time safeguard.

11. In conclusion, we desire to emphasise as strongly as we can the fact that all work of an engineering character is in some shop or other done on a system of payment by results. Where such a system is in operation the grievance alleged does not exist. It is, therefore, due to the Nation that the work-people should put no obstacle in the way of any reasonable system of payment by results being introduced as far as the work lends itself to such.

ALLAN M. SMITH.
D. S. MARJORIBANKS.
JOHN BARR.
A. WARNE BROWNE.
I. (1) Skilled men on promotion to the following occupations and while employed on time and not on system of payment by results shall receive:—

  ¼d. per hour with a further ¼d. per hour after six months' experience above the district rate for fitters or the time rate of the workmen concerned, whichever is the higher:—

(a) **Gauge Makers**, while employed finishing gauges, *i.e.*, beyond \(02\) of accuracy.
(b) **Jig Makers**.
(c) **Cutting-tool Makers**, while employed finishing cutting-tools, *i.e.*, beyond \(02\) of accuracy.
(d) **Inspectors, Examiners and Gaugers**.
(e) **Markers off**.

(2) Skilled men of the foregoing classes whose present time rates are not affected by the foregoing grading shall receive an advance of ¼d. per hour.

(3) Skilled men on promotion to setting-up (other than on shell and fuse, etc., machines) shall receive

2s. 6d. per week or higher, above the district rate of their own trade according to the number of machines under their charge, and the amount of supervision and teaching of workpeople required.

II. In shops where manufacturing is done on a system of payment by results:—

(a) Skilled men of the foregoing occupations employed on time shall receive in addition to their earnings a bonus of 10 per cent. of their total earnings.

(b) Skilled men employed on time in maintenance and repair of plant and machinery and in the production of light, heat, and power, shall receive in addition to their earnings a bonus of 5 per cent. of their total earnings.

III. In shops where manufacturing is done on time the allowances provided in Clause I above shall apply.

IV. Skilled men transferred by the employers temporarily from a system of payment by results to time work shall in addition to their time rate receive a bonus equivalent to the average of the bonuses earned by them for the four weeks prior to transfer.

V. Skilled men engaged on factory production on time on work which is customarily done in the district on a system of payment by results shall receive in addition to their earnings a bonus of 5 per cent. of their total earnings.

VI. The foregoing provisions apply only to workmen engaged in the manufacture of munitions of war except the building of ships, and shall not apply to semiskilled and unskilled men and women introduced on dilution to the foregoing occupations.

VII. The foregoing provisions, except those contained in Clause I, shall not apply in cases where workmen have been given the opportunity of working on a system of payment by results. Should a difference arise as to whether a job which, or similar to which, has not hitherto been so undertaken either in the establishment or in the district in question, is suitable to be done on a system of payment by results, the question shall be referred to the final decision of a Local Arbitration Court consisting of an employer and a workman of the trade concerned with an independent chairman. A system of payment by result so introduced shall be recorded as a change in terms of the Act. An extension of the introduction of such system shall not require a further reference provided the extension is in all essential respects of the same nature as the work covered by an award.

VIII. The additional labour cost entailed by the foregoing shall be borne by the Government.
(b) Memorandum and Proposals by Trade Union Representatives:

1. In reply to the memorandum of the Ministry of Munitions representatives, we cannot accept the view that the purpose for which this committee was constituted has anything to do with Payment by Results, and we therefore protest against any attempt to use this Committee in order to enforce the general adoption of payment by results. We hold that the question of any change in the methods of remuneration must be dealt with locally as at present, by District agreement, and we believe that negotiations on this matter would be most effectively carried on through Trade Union Workshop committees acting under the authority of the District Committee. As we understand that the question of Workshop Committees has been already referred by the Minister of Munitions to the newly constituted Advisory Committee, we shall not, in order to avoid overlapping, submit a detailed scheme.

2. The advance to the following classes of men employed in payment by results shops should be 20 per cent., and this advance should count on their day rate for overtime, night-shift and other allowances.

(a) Gauge makers, while employed finishing gauges, *i.e.*, beyond \(0.02\) of accuracy.

(b) Jig makers.

(c) Cutting tool makers while employed finishing tools, *i.e.* beyond \(0.02\) of accuracy.

(d) Inspectors, Examiners and Gaugers.

(a) Charge hands.

(b) Setters-up (other than those engaged on shell fuses, &c.).

(c) Skilled men engaged in maintenance and repair of plant and machinery and in the production of light, heat and power.

(d) And all other class of skilled time-workers should receive a special advance of 15 per cent. on the same terms as above.

The classes of workers referred to in Clause 2, who are employed in shops wholly engaged on time work, should receive an advance of 15 per cent. on the same terms.

The provisions of Clause 6 are covered by our reply in Clause 1.

*August, 1917.*

The Trade Union representatives on the Committee have to submit the following memorandum:

(1) In our view, the Committee was constituted not for the purpose of enforcing or furthering the adoption of systems of payment by results but for that of finding some method of removing the inequality in the remuneration of skilled time-workers and semi-skilled and unskilled piece and premium bonus workers. The opposition to payment by results among our members is generally known, and we could not have accepted seats upon any Committee of which the object was to enforce its adoption. We mention this fact because we have felt that certain members of the Committee have throughout endeavoured to use it for the purpose of securing our acceptance of payment by results.

(2) We hold strongly that the right way of dealing with the situation is either by a bonus on the earnings of all skilled time-workers, or by an increase in the time rate of such workers. Should the latter method be adopted, it would be necessary to take into account the fact that many skilled time-workers are already receiving over the district rate, and therefore no flat increase in the district rate would at all meet the situation.

(3) We accordingly suggest that all skilled men who are employed on time should receive an advance of 15 per cent. on their present day rates, and that this advance should count on their day rate for overtime, night-shift and other allowances.
(4) These suggestions apply to establishments in which systems of payment by results are in operation, whether or not the majority of the skilled workers in the establishment are employed on such systems; i.e. they apply wherever in an establishment the discrepancy in earnings forms a grievance. In other establishments in which time work prevails exclusively, the classes of skilled workers referred to in clause 3 should receive an advance of 15 per cent. on their present rates, payable on the same terms as are laid down in that claim.

(5) We believe that the foregoing recommendations, while they would by no means remove the discrepancy which is the reason for the deliberations of this Committee, would considerably improve the position. Any attempt, on the other hand, to enforce the adoption of payment by results or to exclude from participation in any advance recommended by the Committee workers who refuse to accept payment by results could only result in stirring up most serious unrest, and in making the present unsatisfactory position infinitely worse. In the course of the discussions, we suggested that the establishment of Shop Committees would serve to ease many of the difficulties that now stand in the way but we have no confidence in any improvement in the position unless the main lines of our recommendations are followed by the Minister.

Submitted 5 September, 1917.

(c) Memorandum by Official Representatives.

1. We consider that if we are to give full weight to the instructions in the reference that we are to have "due regard to the increased output of munitions of war" it is of first importance that nothing should be done which might tend to retard the extension of systems of payment by results. On the contrary we are of opinion that everything possible should be done to extend such systems to the utmost practicable limit.

2. The discussion made it quite clear that the Trade Union Representatives on the Committee could not agree to any recommendations which included a condition that any advances or bonuses proposed should not be granted in cases where workmen are given the opportunity of working on a system of payment by results. Further, even if they had been willing to agree, they could not guarantee that such agreement would be ratified either by the Executives of the Unions which they represented, or by the rank and file of their members. From this it follows that little advantage would accrue from a report from the Committee in which this was embodied as a condition.

3. We suggest that as this matter is one of national importance, the Minister should not announce any decision on the point at issue without first consulting his Trades Union Advisory Committee. In this connection it is desirable to point out that the A.S.E. is likely to be the Union most concerned and, whilst the Advisory Committee would no doubt offer advice and make suggestions, they could not in any way commit the A.S.E. to the acceptance of the principle which the Employers have advocated; but they might point out the direction in which agreement would be likely to be reached.

4. If it be decided that an advance should be granted without the condition as to the extension of systems of payment by results, we submit that such advance must be on a less liberal basis than if the condition attached to it.

5. It should also be noted that the advance must be of such proportion that it does not prejudice existing systems of payment by results, nor tend to prevent the extension of such systems.

W. J. LARKE.
GORDON CAMPBELL.
J. M. McELROY.
7.9.17.
2. Final Report of Committee on Rates of Skilled Dayworkers.

The Committee make the following recommendations:

I. The Committee have limited their recommendations to workmen employed in the engineering trades.

II. All skilled men employed on time (except those provided for in Clause III) shall receive the following bonus:

(a) if employed in shops where systems of payment by results obtain—15 per cent. on their earnings;

(b) if employed in shops where manufacturing is done on time—12½ per cent. on their earnings.

III. All skilled men employed on time in maintenance and repair of plant and machinery, in the production of light, heat and power, and in setting up, shall receive the following bonus:

(a) if employed in shops where systems of payment by results obtain—12½ per cent. on their earnings;

(b) if employed in shops where manufacturing is done on time—10 per cent. on their earnings.

IV. The foregoing provisions shall become operative on the first pay after 6th October, 1917.

V. Skilled men transferred by the employers temporarily from a system of payment by results to time work shall in addition to their time rates receive a bonus equivalent to the average of the bonuses earned by them for the four weeks prior to transfer.

VI. The foregoing provisions apply only to skilled workmen employed on time rates in the Engineering Trades and engaged in the manufacture of munitions of war, and shall not apply to semi-skilled or unskilled men and women introduced on dilution to the foregoing occupations. With regard to the building and repair of ships the foregoing provisions apply only to members of the Engineering trades employed therein.

VII. Men who are at present in receipt of a bonus over and above their time-rates shall be paid either the foregoing bonuses or their existing bonuses, whichever are the higher.

VIII. The foregoing provisions shall not apply to women who receive the skilled man's rate under Order 489, Clause 1, (b).

IX. Nothing in the foregoing provisions shall affect the present basis of determining piece rates, premium bonus times, or any other system of payment by results.

X. The additional labour cost entailed by the foregoing shall be dealt with by the contracting Departments on similar lines to previous advances made by the Committee on Production.

XI. The Committee are greatly indebted to their Secretary, Mr. John Murray, whose skill and experience have been of the greatest assistance.

J. W. HILLS.
W. J. LARKE.
J. M. McELROY.
ALEC GORMAN.
W. H. HUTCHINSON.
W. F. DAWTRY.
GEORGE WILKINSON.

JOHN MURRAY,
Secretary.

21 Sept., 1917.

1 The representative of the Ministry of Labour did not sign, but made no protest.
3. Memorandum by the Labour Committee of the Ministry of Munitions.

Engineering Trade—Skilled Time-Workers' Wages Order.

In forwarding this Order for the approval of the Minister the Committee has the following observations to make:

1. The report of Major Hills' Committee recommended the following advances to all skilled men in the Engineering Trades employed on time-work:

   In Piecework Shops.
   
   (a) 15 per cent. to all such men except those included in
   
   (b) 12½ per cent. to all men engaged on the maintenance and repair of Plant and Machinery and the Production of Light, Heat and Power.

   In Timework Shops.

   Advances of 12½ per cent. and 10 per cent. respectively for the above classes.

   When the L Committee came to examine Major Hills' report they felt that the distinction between men engaged on the maintenance and repair of Plant and Machinery, and on the production of Light, Heat and Power on the one hand and of all other skilled men on time on the other, was not a valid one, and they further came to the conclusion that the advances should be 15 per cent for all skilled men on time employed in piece shops and 12½ per cent for all skilled men on time employed in time shops.

2. The Committee considered the effect of the report in all its aspects and submitted a memorandum to the Minister on the subject of the classes of men which should be scheduled to the Order. One schedule A was prepared which limited the advances to those classes of men who were (a) most essential, (b) most closely associated with less skilled time workers and (c) least able to work on a system of payment by results. The other schedule B included practically all the skilled men in the Engineering Trade. The Committee's memorandum attempted to estimate the effects, both industrial and financial, of each schedule and asked for a decision from the Minister as to whether it should proceed on the basis of the limited A or the general B schedule.

3. The Minister after consideration of the memorandum decided in favour of the limited schedule.

4. The Committee then proceeded to draw up the Order.

5. The operative provisions of the Order did not present any great difficulties. The final form to be given to the limited schedule was, however, not easy to determine. After eliciting informally the views of representatives of Employers and Trade Unions on the terms to be used, the Committee has drawn up a further limited schedule C. This schedule is based on the logically defensible principle of including only those who by the nature of their occupation are prevented from working on a system of payment by results. In adopting this principle the Committee wish to make it clear that they do not conflict with the Minister's refusal to accept the Employers' proposal that the advance should be made conditional on the men accepting any reasonable offer made to them of working on payment by results. This proposal would have made the question whether in any particular case a man was or was not to receive the advance depend on the question whether an offer made to him was reasonable or not. Schedule C, on the other hand, includes definitely those for whom payment by results is generally impracticable.

   Men employed in public utility undertakings have been included in Schedule C in consequence of representations to that effect made to the Committee by those undertakings.

6. The Committee recognises that the Order with Schedule C departs from the recommendations of Major Hills' Committee in favour of a general advance to skilled men. The Committee's objections to such an advance are (a) that it assumes a general grievance among all the skilled men and (b) that there is little prospect of confining such an advance to skilled men in the Engineering Trade.
The Order with Schedule C, on the other hand, recognises the specific grievance of the skilled time-worker who cannot increase his earnings by results and makes provision for that grievance.

7. The Committee has considered the Admiralty letter of October 5 filed in M.W.L.R. 139/256 and believes that its objections would not arise if the Order were made with Schedule C. Such an Order would not prejudice the introduction or extension of payment by results.

8. The Committee estimates that Schedule C covers approximately 207,500 men and that the cost of the advance prescribed by the Order would be £5,440,000 per annum.

CHARLES E. ELLIS.

4. Extract from a Memorandum by Sir Lynden Macassey, Director of Shipyard Labour.

* * *

8. The intention of the proposed Order is two-fold:—

(1) To remove the difference in earnings between the time-paid skilled men and the piece-paid semi-skilled and unskilled operatives.

(2) To prevent skilled men leaving their time-paid skilled work on the abolition of the Leaving Certificates and taking up higher piece-paid semi-skilled work.

9. The proposed Order will not achieve these purposes. The grievance in many Engineering Shops is that certain semi-skilled and unskilled operatives working on piece-work make much larger earnings than the time-paid skilled men on whom they are dependent. The proposed percentage bonuses will not bring the earnings of the skilled men who receive them up to the level of the semi-skilled and unskilled operatives in question.

Secondly, as the earnings of the skilled men will remain lower than the semi-skilled and unskilled operatives even after the concession of the bonus, there will not be any financial inducement for the time-paid skilled men to remain at their skilled work and refrain from going on less skilled piece-paid work. If it is intended to prevent such waste of skilled labour Employers can and ought to be prevented, under No. 8a of the Defence of the Realm Regulations, from employing skilled men on semi-skilled work. That is the proper remedy.

The proposed Order gives a bonus to a certain number of time-paid skilled men and irrespective of whether they have been working in connection with piece-paid semi-skilled and unskilled operatives or not. It is obvious that the same bonus will and can logically be claimed and must ultimately be paid to all time-paid skilled men in the engineering trade because they all, like the limited class of proposed recipients under the Order, can point to some higher piece-paid semi-skilled and unskilled operatives. That this will be so, appears from the Report of the Committee, who apparently found themselves unable to draw any line and recommended a bonus to all time-paid skilled men in the trade.

11. Without question similar bonuses can logically be claimed and it would seem, on grounds of equity, must ultimately be paid to all time-paid semi-skilled and unskilled men in the Engineering Trade. These men naturally feel a grievance that they are not or cannot be put on piece-work and therefore cannot make the same high earnings as members of their own occupations make who are on piece-work.

12. Once the above-mentioned principle is admitted in the Engineering Trade it must ultimately be admitted in the Shipbuilding Trade. There is developing among the Boiler-makers a very strong movement for abandoning payment by results and introducing in its place a time-rate with a make up bonus to the approximate level of piece-work earnings. Further, by reason of the publicity attaching to the question in the Engineering Trade, semi-skilled men in the
Shipyards now paid on time and working with piece-workers are claiming bonuses on their time rates.

13. The proposed Order for the first time in the history of the Engineering industry gives effect to two new principles:

(a) It provides for a percentage wage increase not based on any economic datum, as, for example, the increased cost of living, which has been the ground on which, up to the present, wage advances have been based, but on a purely arbitrary and empirical percentage which cannot be tested on any economic ground. This will undermine very seriously the practice and procedure of the Committee on Production which has now secured very general approval and authority in the industrial world. Once the percentage basis is adopted there will commence a regular agitation for the increase of the percentage and the amount of the increase will merely become a question of opportunism as to the amount from time to time requisite to keep the applicant trades quiet. There can be little question that the time-paid trades will ultimately claim as a minimum the highest general average earnings customary amongst piece-workers in their respective trades.

(b) It virtually establishes a principle that the day rates of men not working at piece-work speed, should approximately be the same as those now working at piece-work. This has long been the contention of an advanced section of the Trade Union movement but if adopted, would be a very serious blow to the Engineering and Shipbuilding industry.

14. A further effect would be to prevent materially the further extension of systems of payment by results as ordered by the War Cabinet (See War Cab. Decision No. 49 I (1) & (2) Jan. 30 1917) which it is understood the War Cabinet regard as a matter of prime importance and which the Admiralty have been successful in effecting in the case of certain trades with most satisfactory results.

15. The time-paid skilled men generally have no grievance that a number of semi-skilled men are making substantially higher earnings. In cases where that occurs it is due to the fact that under the Treasury Agreement, the Munitions of War Act, 1915, and the documents known as L.2. & L.3. the piece-prices for semi-skilled and unskilled operatives doing skilled work are based on the skilled man’s time rate. This was expressly provided to protect the skilled man’s trade, and to keep up the price of his labour. The higher, therefore, the piece price the more is the skilled man protected. He cannot therefore on the ground of height of price make any legitimate complaint.

16. Apart from the general sentimental grievance in the Engineering Trade on the part of some skilled men who do not understand the reason that semi-skilled operatives in certain cases make higher earnings than a skilled man, the real case to be met in practice is the direct personal grievance and legitimate complaint of the time-paid skilled man working in tool-rooms and places of that sort in connection with piece-paid operatives, who finds himself with lower earnings than the semi-skilled and unskilled operatives instructed by, or dependent on him. The operatives make higher earnings for four reasons, because:

Firstly, the semi-skilled operatives are prepared to go and do go on a system of payment by results.
Secondly, the price paid to them is based on the skilled man’s high time-rate.
Thirdly, the rate of output of the semi-skilled operative has been much increased by the provision by the Employers of jigs, special tools, and other devices for making machines ‘‘fool-proof.’’
Fourthly, In some cases, before semi-skilled men went on to the work, the prices have been fixed much too high, owing to the skilled men holding back production or through mistake, both on the part of the Employers and of the Government Department concerned.

17. If then the time-paid skilled men desire to have their position remedied they, like the semi-skilled men, should be prepared to go on a system of payment by results wherever possible. It is wholly unreasonable for them to refuse to do so and at the same time claim time-earnings as great as the piece earnings of the
semi-skilled operatives. Where, therefore, it is practicable to put the skilled men on to a system of payment by results it is essential in the national interests of both production and economy that they should be so put and not paid a bonus independent of output. The order it is recognised, should not operate as a compulsory measure to substitute payment by results, for payment on time, but at the same time it is submitted it ought not to prevent the introduction or extension of payment by results in proper cases. So long as the War Cabinet policy is payment by results in proper cases a potential piece-worker who refuses to go on to piece work should be refused a bonus.

18. The next question is the system of payment by results to be adopted. That should so far as possible be left to agreement between masters and men. On the general question of the system, this may be said: Strong objection would be raised by the skilled men to the premium bonus system. That, unless agreed between management and men, has to be excluded from practical consideration. The next system is piece-work. While that is much more acceptable to the skilled men, yet in some cases it would be impracticable. In such quarters as there are objections on the part of the men to piece-work they are usually based on the ground that each piece-worker tends to become a separate self-seeking unit, without any interest in the general life and welfare of the shop, keeping himself, his earnings, his tools apart, and often competing with his fellows for the use of necessary facilities and, if he is on day shift, working up to the limit of his time and therefore frequently not "dove-tailing" his work into that of his mate on night shift. The next system is shop output bonus or fellowship system to which no such objections apply. Under it the shop works as a united community and the output of a whole establishment or the respective output of the constituent parts, e.g., machine shop, smithy, foundry etc., are priced or a graduated bonus applied after the output exceeds a certain amount. The balance after payment of day rates to all operatives of every class concerned is carried to a common pool which is divided amongst them in proportion to day rates. To this system there is rarely any objection on the part of the skilled men. It is working with smoothness and success in a number of large engineering establishments and would effectively meet the present case. It would ensure instruction by and co-operation on the part of the skilled men. The greater their efforts the greater the output and the more their bonus. Assuming the Government does not pay the bonus the only objection likely to be raised to the shop output bonus or fellowship system would come from the semi-skilled operatives who would possibly object to any portion of their earnings being divided among the skilled men who instructed them, or on whom they were dependent for tools, etc. But the Government are in a strong position to deal with the semi-skilled operatives. They are nothing like so vital to the industry as the skilled men. The Government's pledge against reduction of piece-prices would not be affected. Strictly speaking, in almost every case, through changes in the mode of manufacture, since the piece-price was fixed, owing to the application of jigs, provision of special tools, and adoption of fool-proof devices, the Employers could without any violation of the pledge, if they had liked to enforce their right, reduce the price and therefore the earnings of the semi-skilled operatives. But no reduction of price whatever is involved under the shop output bonus, or fellowship system.

19. As it is recognised under the circumstances as they now exist that something must be done, it is urged, in view of the very serious industrial effects that would result from the operation of the proposed order, that the order be amended to provide that a bonus on the principle of the shop output or fellowship system (unless by agreement between master and man some other system is adopted) be paid to time paid skilled men in the engineering trade working for, with or in connection with piece paid operatives. This would meet the existing necessities of the case, and would appear fully to concede all that has been promised by the Minister of Munitions.

20. My opinion as to the serious effect of proposals such as are contained in the proposed order is I may say shared by the Shipbuilding Employers' Federation, and by Trade Unionists on the staff of the Shipyard Labour Department and also my by experienced local officers in the different districts.

LYNDEN MACASSEY.
5. The Skilled Timeworkers (Engineers and Moulders) Wages Order, 1917. (No. 1061).

Whereas the Minister of Munitions considers it necessary in order to maintain the output of munitions that directions should be given with respect to the remuneration to be paid to fully qualified skilled Engineers and Moulders of the class specified in this Order for work being munitions work or work in connection therewith which at the time when these directions are given is paid at time rates.

Now therefore the Minister of Munitions in pursuance of the powers conferred upon him by section 1 of the Munitions of War Act, 1917, and of all other powers vested in him by the Munitions of War Acts, 1915 to 1917, hereby orders that the following directions shall have effect with respect to the remuneration to be paid to fully qualified skilled Engineers and Moulders of the class specified in this Order for work being munitions work or work in connection therewith which at the time when these directions are given is paid at time rates.

1. Workmen to whom these directions apply shall receive a bonus of $12\frac{1}{2}$ per cent. on their earnings which shall not alter or become part of their time rates.

2. The bonus payable under these directions shall accrue as from the beginning of the first full pay following the twelfth day of October, 1917, and the first payment thereof shall be made as soon as possible and not later than the first full pay day in November, 1917.

3. These directions apply, subject to the provisions of paragraphs 4 and 5, only to fully qualified skilled Engineers and Moulders rated at or above the current district time rate for turners or fitters while employed on or in connection with munitions work and paid at plain time rates without the addition of any bonus other than:

   (a) A bonus dependent on timekeeping.

   (b) A bonus (not being a bonus on output) less favourable to such workmen than the bonus payable under these directions, in which case the existing bonus shall merge in the bonus payable under these directions.

   (c) A war advance given to meet the cost of living as the result of or in conformity with arbitration under Part I. of the Munitions of War Act, 1915.

4. These directions shall not apply to workmen of the class specified in paragraph 3 of this Order whose wages it has been the practice to regulate by the movements in the wages of men employed in trades other than the Engineering and Foundry trades. An application may be made to the Minister of Munitions for special directions in cases where the existing basis of remuneration for such workmen is less favourable than that of workmen of the same class to whom these directions apply.

5. These directions shall not apply to workmen paid an upstanding wage or salary which covers overtime or other allowances.

6. Nothing in the foregoing provisions shall affect the present basis of determining piece rates or premium bonus times or any other system of payment by results.

7. Any contravention of or non-compliance with these directions is punishable in like manner as if this Order was an Award made in settlement of a difference under Part I. of the Munitions of War Act, 1915.

8. These directions may be varied by the Minister of Munitions from time to time but shall not continue in force after the termination of the present war.

9. Any question which arises as to the interpretation of these directions shall be determined by the Minister of Munitions.

This Order may be cited as "The Skilled Timeworkers (Engineers and Moulders) Wages Order, 1917."

Dated this 13th day of October, 1917.

WINSTON S. CHURCHILL.
APPENDIX VI.

(CHAPTER VII, p 201.)

Cost Variation Clauses in Contracts (Wages).

Declaration by Contractor.

1. The Contractor declares that the price is fixed strictly upon the basis of present rates of wages, and that nothing had been allowed and no item included in the price covering the contingency of a rise in the cost of labour.

II. If during the currency of the contract the cost of labour shall be increased by direct Government action (as defined below) the Contractor may claim and the Minister of Munitions shall repay any increased cost of production due to increased cost of labour, provided the following conditions are observed:

   (1) Upon the announcement of any increase of wages resulting from such direct Government action as aforesaid paid or employed in the execution of this contract, the Contractor shall forthwith notify the Department of the estimated amount of his claim in respect of increased cost of production due thereto.

   (2) If the Contractor shall so notify the Department, he shall keep his record in such form as to show clearly the amount of the extra cost due to the rise in wages.

   (3) No claim shall exceed the strictly net amount chargeable to the contract on account of the increased cost of labour properly employed in the execution of the contract, i.e., no addition whatever in the name of establishment charges or profit or otherwise shall be admitted, but a claim for such increased cost shall not be excluded merely on the ground that the cost of such labour (including pay of foremen and draughtsmen) is brought into account in the cost accounts of the Contractor otherwise than as part of the direct cost of labour.

   (4) Upon receipt of any such claim the Minister may either:

     (a) Agree with the Contractor the amount by which the contract price shall be increased by reason of such claim without awaiting the completion of the contract, or

     (b) failing agreement, may postpone the determination of such claim until the due completion of the contract, provided that if required by the Minister any such claim must be supported by the certificate of a Chartered or Incorporated Accountant or by some other accountant approved in any particular case by the Minister that such additional wages have actually been paid and the accounts and figures upon which such claim is based shall at the option of the Minister be subject to independent investigation on his behalf. The decision of the Minister as to the additional sum, if any, to be allowed shall be final and conclusively binding on the Contractor.

   (5) Except with the prior consent in writing of the Minister no claim shall rank as due for payment before the expiration of the contract, and the Minister shall not be bound to pay any claim unless the Contractor has duly fulfilled the obligations of his contract to the reasonable satisfaction of the Minister, and no claim in respect of any work, goods, or articles which are not completed or delivered within the date fixed by the contract shall be admitted unless the Minister is satisfied that the delay has been due to causes beyond the control of the Contractor.
Interpretation.  (6) For the purposes of this clause "direct Government action" means any award as to wages made upon any reference for settlement under the Munitions of War Acts, 1915-1917, or any order or award as to wages made by the Minister or by any Tribunal appointed for that purpose pursuant to any Act of Parliament, and

Decrease of costs.  III.—In the event of the cost of labour being decreased by direct Government action as above defined during the currency of the contract and of the cost of production of the goods ordered under this contract being in the opinion of the Minister thereby reduced, the Minister may withhold from the contract price an amount equivalent to the saving in the cost of production thereby effected on the contract, and in default of agreement as to the amount of such saving such amount shall be decided in the manner prescribed above for dealing with claims for increase.
### APPENDIX VII

**Table of Statutory Wages Orders Relating to Men.**

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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1916.—182.</td>
<td>24/2/16</td>
<td>Application of Circular L.3 to Controlled Establishments. Order No. 1.</td>
</tr>
<tr>
<td>412</td>
<td>26/6/16</td>
<td>Employment and remuneration of semi-skilled and unskilled men on skilled men's work. Order No. 2.</td>
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<td>589</td>
<td>7/9/16</td>
<td>The Munitions (Employment and Remuneration of Semi-skilled and Unskilled Men). Order No. 3.</td>
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<td>1917.—71.</td>
<td>24/1/17</td>
<td>The Munitions (Employment and Remuneration of Semi-skilled and Unskilled Men). Order No. 4.</td>
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<td>667</td>
<td>26/6/17</td>
<td>The Munitions (Employment and Remuneration of Semi-skilled and Unskilled Men). Order No. 5.</td>
</tr>
<tr>
<td>1917.—1061.</td>
<td>13/10/17</td>
<td>The Skilled Timeworkers (Engineers and Moulders) Wages Order, 1917.</td>
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<td>1301</td>
<td>11/12/17</td>
<td>The Timeworkers (Engineering and Foundry) Wages Order, 1917.</td>
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<tr>
<td>1308</td>
<td>11/12/17</td>
<td>Timeworkers (Shipbuilding and Ship-repairing) Wages Order, 1917.</td>
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<td>1918.—187.</td>
<td>8/2/18</td>
<td>The Skilled Aircraft Workers’ Wages Order, 1918.</td>
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<td>742</td>
<td>14/6/18</td>
<td>The Time Workers (Building and Construction) Wages (General) Order, 1918.</td>
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<td>1917.—938.</td>
<td>7/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 1. (Engineering and Foundry Trades).</td>
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<td>967</td>
<td>20/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 2. (Light Castings Trade).</td>
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<td>The Munitions (Extension of Awards) Order No. 3. (Light Castings Trade).</td>
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<td>The Munitions (Extension of Awards) Order No. 4. (Stove, Grate and Light Metal Trades).</td>
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<td>7/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 5. (Light Castings Trade).</td>
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<td>24/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 6. (Chemical Trades).</td>
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<td>986</td>
<td>24/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 7. (Brassworkers—Birmingham and district).</td>
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<td>1003</td>
<td>30/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 8. (Dressers in Iron and Steel Works, Scotland).</td>
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<td>1004</td>
<td>30/9/17</td>
<td>The Munitions (Extension of Awards) Order No. 9. (Brassworkers, Birmingham and district).</td>
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<td>Statutory Rules and Orders Nos.</td>
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<td>Description.</td>
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<tr>
<td>1047.</td>
<td>8/10/17</td>
<td>The Munitions (Extension of Awards) Order No. 10. (Engineering and Foundry Trades).</td>
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<td>1064.</td>
<td>15/10/17</td>
<td>The Munitions (Extension of Awards) Order No. 11. (Scotch Steel Foundry Trades).</td>
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<td>1171.</td>
<td>20/11/17</td>
<td>The Munitions (Extension of Awards) Order No. 13. (Shipbuilding Trades).</td>
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<tr>
<td>1239.</td>
<td>6/12/17</td>
<td>The Munitions (Extension of Awards) Order No. 15. (Light Castings Trade).</td>
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<td>1258.</td>
<td>16/12/17</td>
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WAGES AND WELFARE

PART II

THE CONTROL OF WOMEN’S WAGES
Volume V

WAGES AND WELFARE

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PROBLEMS AND POWERS OF CONTROL.

I. Introductory.

The industrial position of women was an unsettled problem before the War. The mobilisation of women's labour for the production of munitions compelled the Government to become a party to its consideration. The problem focussed in the question of wages; the Ministry of Munitions, responsible directly or indirectly for the chief part of the increased industrial employment of women, found it necessary to control the wages of women munition workers and to develop a policy in accordance with which this control should be exercised.

Besides regulating the wages of large numbers of women in National Factories and Controlled Establishments, the Department influenced the earnings of many more for whom it was not directly responsible. Its orders served as precedents in other forms of employment, and (since the department dealt with "munitions" not with complete trades) the regulation of wages of one group of earners in an industry or factory inevitably affected those of the non-munition workers beside them. But wages problems could not be treated with uniformity in the country as a whole if only for the reason that no one authority was responsible for their handling. The powers which the Ministry of Munitions exercised for their determination among munition workers were given by special legislation, and were restricted in their application.1

The first Minister, in the month after the establishment of the department, acknowledged its responsibility for the wages of women engaged on munitions work, although the implications of this acknowledgment were not fully realised at the time. "... We have agreed to pay exactly the same rate of wages for piece-work as to men ..." said Mr. Lloyd George to a deputation from a great gathering of women on 17 July, 1915. "For some time women will be unskilled and untrained, and they cannot turn out as much work as men can who have been at it for a long time. Therefore we cannot give the same time rate to them. Mrs. Pankhurst is perfectly right in insisting that whatever those wages are, it should be a fair rate of wages. ... there should be a fixed minimum which would guarantee that we should not merely utilize the services of women in order to get cheap labour." Only 50,000 women, according to the official estimate, were engaged on munitions work as then defined. But as more women were transferred from other industries and called from other occupations to make munitions, and as the scope of "munition's work" steadily expanded, the permanent, and not only the incidental,

1 For the range and industrial incidence of Wages Orders see Appendix II., p. 150.
importance of controlling their conditions of work became apparent. The introductory address of the fourth Minister of Munitions to an advisory committee of women trade unionists summoned in November 1917 to weekly meetings at the Ministry shows the Department's developed conception of its responsibilities:

"I have come here to-day," said Mr. Churchill, "in order to meet the Committee at its first assembling and to say how strongly we here realise the importance of our work in regard to the employment of women. We are incomparably the greatest employers of women there has ever been in the world, we are the pioneers of women's employment in the industrial and even in the military field. Whatever may be the future position which women's labour will take after the war, it will be enormously influenced by the actual practice which has been followed when so much is in the making, and when so much control is vested in the organisation of the Ministry of Munitions. Therefore we are really at the head stream of history in regard to women's place in the industrial life of Britain, perhaps as far as this present century is concerned. The interests of women in industrial life must not be an incident of the Great War. Now is the time during the Great War for us to perceive, discover and proclaim the principles which should regulate, for perhaps the lifetime of a whole generation and perhaps for longer, the lines of advance on which women's industrial work should proceed."

II. Initial Difficulties, 1915.

The conditions were not favourable to the development of a wages policy, when the Ministry of Munitions came into being.

1. While endeavouring to secure good conditions for women munition makers, both for the sake of present and future needs, the Ministry was limited in action by the fact that the output of munitions was the primary end of its existence, and that regulation of labour must be directed to the increase of output. The establishment of a standard wage for women workers might be held to promote this end, but its enforcement had to be introduced with due consideration for employers and for existing working conditions.

2. Further, in dealing with the problems of women's wages, the Department had to cross an almost uncharted sea. Up-to-date information as to the conditions of women's work in the industries included in "munitions" was very inadequate—almost inevitably so owing to the absence of standardization in women's work. The only method of control of women's earnings already existing was that of the Trade Boards, and this was not wholly applicable to the needs of 1915-1916, partly on account of the time required by their procedure before wage changes became effective, principally because, as before said, the Ministry dealt not with trades or firms as a whole, but with "munitions." It was, for example, concerned with only a proportion of the employers and workers in the metal trades, according as their output was or was not destined for war purposes. Provisions such as those of the Trade Boards, which dealt with the whole of a trade equally, were therefore
clearly not appropriate to the circumstances. If the regulation of the wages of women producing munitions were necessary, new methods, which could be quickly made effective, were required.

3. Finally—and this was the most important factor in decision—many of the employers of women and most of the women engaged in munitions work were unorganised. Until two years after the passing of the first Munitions of War Act, the industry employing the second largest number of women munition workers had no employers' association which could produce a national policy for dealing with the workers, while the two trade unions which primarily concerned themselves with the wages of these women, had, in 1915 and even in 1916, enrolled only a very small proportion of the workers. Women and girls came in the first year of the Ministry to make shells, explosives, etc., from the textile industries and the potteries in which "organisation" existed, and from other branches of the metal trades, in which they may have had opportunities of joining a Trade Union. But they came also from Scotch fishing villages, from Irish bogs, and the workrooms and villas of English provincial towns; they had little experience of the needs of the town factory worker employed at high pressure, and little idea of securing a standard wage corresponding with these needs; nor was there in 1915-1916 much opportunity either for employers as a whole or for workers to formulate such a standard.

It was largely for this reason that the skilled workman in the engineering trades tended to oppose the introduction of women into his trade. He had often a profound suspicion of the woman worker as a possible blackleg, accepting lower rates of pay than those laboriously acquired by trade union action.

The problem of women's wages was therefore very different at this stage from that of the wages of men munition makers. The latter had trade organisations of varying degrees of strength and comprehensiveness; the employers equally had organisations of their own. Although trade union influence did not cover the whole field of men's labour, even in the comparatively "well-organised" munition trades, such as shipbuilding and engineering, yet the principle of collective bargaining and of standard rates of payment was firmly established. For the first two years, therefore, of the Ministry's existence the principles adopted by the Department were that employers and men should settle wages between themselves; that where this was impossible either the established systems of arbitration and conciliation or the specially created Committee on Production should take action; and that the Ministry should only intervene in the settlement of wages to sanction changes, or in rare cases to disallow agreed changes, to insist, like other Departments of State, on the observance of the Fair Wages Clause by contractors, and to lay down standards of payment for

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1 The National Federation of Women Workers had 12,152 members at the end of 1913, the Workers' Union a female membership of 4,380; at the end of 1916 the numbers were 27,761 and 20,000. In 1913 the total female trade union membership was 356,963. Of these, 257,281 were in the textile, and only 99,682 in the non-textile, trades.
substitutes replacing skilled workmen under dilution. Most of these functions, however, presupposed organisation among workers, if not among employers, and recognised standards of payment; these, as has been said, hardly existed in the case of women’s work.

Despite the difficulties involved, some special form of regulation of women’s wages, was almost inevitable from the first establishment of the Ministry, both for the sake of the workers’ efficiency and in the interests of industrial peace. It was required as a safeguard equally for the women, who, in theory if not always in practice, were until October, 1917, prevented by the leaving certificate regulations from changing their firm to better themselves; for employers, anxious to know what they should pay to women taking the place of men, and what wages should be offered to women and girls imported from a distance for munitions work; and for the men, whose fears of the effects of women’s entry to their trades had to be dispelled. The established methods of arbitration and the checking of individual cases of under-payment by the enforcement of the Fair Wages Clause, were too slow in operation to solve the whole problem of women munition workers’ wages during the war, even if standard rates for women had previously been in existence.

III. Powers of the Ministry.

Accordingly, the Ministry of Munitions was given special powers for controlling women’s wages, under the Munitions of War Acts.

(1) Schedule II. (5) of the original Act of July, 1915, laid down in general terms the principle that women or men introduced to take men’s work in the course of labour dilution, must not take lower rates than those previously earned by the men. “The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job.”

Two other clauses affected the wages of women as well as of men munition workers. (1) Section 4 (2) provided that proposed changes of wages in controlled establishments must be sanctioned by the Minister before being put into effect. Section 7 forbade the employment of a person within six weeks of his or her leaving munitions work in certain establishments, without a certificate from the previous employer that the person concerned left work with the employer’s consent. The first of these sections supplied a check on excessive increases in wages and on arbitrary changes in piece rates; the second indirectly affected wages, especially of low paid workers, by making a change of employment difficult.

(2) The Amendment Act of January, 1916, provided as follows:—

(a) Section 6 (1). “Where female workers are employed on or in connection with munitions work in any establishment of a class to which the provisions of Section 7 of the principal Act as amended by this Act are for the time being applied by an order made thereunder, the Minister of Munitions shall have power by order to give directions as to the rate of wages.... ....of the female workers so employed.”
(b) Section 8 (1). "The Minister of Munitions may constitute Special Arbitration Tribunals to deal with differences reported under Part I. of the principal Act which relate to matters on which the Minister has given directions under the last two preceding sections, and the Board of Trade may refer any such difference for settlement to such Tribunal in lieu of referring it for settlement in accordance with the first Schedule to the principal Act."

(3) The Munitions of War Act of August, 1917, provided (Section 4) that the regulation of wages, under Section 6 of the previous Act, should be extended to "female workers employed on or in connection with munitions work in establishments of all classes," when the leaving certificate regulations of the original "Section seven" should have been repealed.

The Statutory Orders made in accordance with Section 6 of the Act of January, 1916, were applied to individual firms by schedule. They did not cover all the firms in any one trade, nor did they necessarily apply to all munition firms. By the beginning of 1918, however, almost all controlled establishments employing women, and a large number of other munition firms and "certified undertakings" (gasworks, tramway companies, etc.) had received wages Orders. Their administrative enforcement was provided for departmentally by the Wages Section of the Ministry, and locally by its Labour and Investigation Officers. Uniform wage rates were prescribed by these Orders, which did not as a whole attempt to distinguish between the trade customs and local standards of living of the firms and workers to which they were applied.

The Special Arbitration Tribunal, established in accordance with Section 8 of the Amendment Act of 1916, provided a second and most important method of settling rates of wages. "Differences" between women munition workers and their employers, were, like those of men, reported under Part I. of the Munitions of War Act of July, 1915, to the Board of Trade or Ministry of Labour, and were thence referred for compulsory arbitration. The tribunal was independent in its awards, though subject to the Minister's interpretation of the Munitions Act, and its awards in individual cases constantly served as a basis for departmental administration. In this way, its position resembled that acquired by the Committee on Production on a very much larger scale in 1917, except that in addition to settling disputes and laying down precedents for payments in similar cases, it was responsible to the Department for advice upon the framing of Statutory Orders and any general problems of women's wages that might be referred to it by the Minister.

The awards of the Special Tribunal, and the provisions of the Statutory Orders, were enforceable by a Munitions Tribunal under a penalty of not more than £5 per head of the workpeople concerned for each day that an employer disregarded such awards or Orders, and of not more than £5 per day in the case of any employee disregarding an award.¹

¹ To the end of 1918 one hundred and thirty-two complaints were heard, and fines were inflicted, in respect of seventy-five offences, amounting to £257 10s. 0d.
The history of the first two years of the regulation of women's wages is largely the history of the application of Statutory Orders to the heterogeneous mass of trades contributing to the supply of "munitions."

From one point of view the record is a confusing one, an example of what are called "bureaucratic methods." The quantity of Orders (increased in appearance by the practice of the Stationery Office of giving fresh numbers to re-issues of the same order) was complained of by employers and by workers alike. "With all these orders issued with regard to wages it wants really a lawyer, and a good one, to sit down and find out what they mean. Unless you study the things right out they are difficult to understand and we cannot understand them. An average Trade Union official has not time to devote to studying them. I will not say that the Orders are conflicting, but they are worrying," said the representative of a men's unskilled union which had lately taken up the cause of women workers, in a deputation to the Ministry in June, 1917.¹

When, however, it is considered that by the middle of 1918 the wages Orders had been applied to firms in some eighty² different trades and occupations—each with its own traditions and requirements—while the pressing need for output and the employer's claims had constantly to be balanced with the demands of labour, the impossibility of complete simplicity is obvious. The greater part, indeed, of the difficulty of applying the Orders came in practice from the attempt to treat very varied trades with even a moderate amount of uniformity. The terms of the Orders were clear and simple when compared with those of many of the agreements reached independently by negotiation between employers and trade unions.

IV. "Men's Work" and "Women's Work."

Administratively the Orders fell into two main groups—those for "men's" and for "women's" work—and as such their history will be considered. The distinction is, to some extent, arbitrary. To the employer and the individual worker there was often no inherent difference between the two types of work, though in many cases the distinction was obvious, either from the degree of skill needed, and secured by the man's apprenticeship, or from the laborious character of the work done. Frequently, however, such distinction was only an instance of the conservatism of industrial life, the comprehensible exclusiveness of the male trade unionist, and the normal industrial woman's lack of initiative which had led her, in the century before the War, steadily to take the less skilled and worse paid work, as it appeared in the process of the division of labour.

When the first statutory circular was issued for women on men's work in February 1916, the officials of the Ministry and of the Board of Trade had frequently to disabuse workers of the impression that a uniform minimum wage had been prescribed for all women munition workers. In some ways it would have been much simpler if this had

¹ L.R. 142/4. ² See Appendix II.
been done, for, apart from the trouble of maintaining two, or more, sets of wages for "men's" and "women's" work, there was a border area in which it cost much labour to decide what was, or was not, substitution work. "The introduction of female labour would have been enormously simplified and extended had it been possible to protect the female workers first by fixing a minimum rate; secondly, by providing due safeguards as to hours of working; thirdly, by making no attempt to distinguish between what was women's work before the War and the contrary—although, doubtless, at this stage it is too late to reopen the question," wrote Mr. A. Herbert, head of the machine tool department of the Ministry, and himself a prominent engineering employer, when asked to comment on a proposed wage schedule in December 1915.

The two groups of occupation were, however, in so far as the Ministry was concerned, separated not only by custom and tradition and by the order in which it was called upon to deal with them, but by the specific obligations by which the Government was bound in the case of men's work under the Treasury Agreement of March, 1915. Wages for "men's work" had to be dealt with as part of the problem of labour dilution, in consultation with the men's trade unions concerned, and their settlement stood out against a background of generations of effort to establish the "district rates," which represented the standard of living of a skilled (or unskilled) workman and his family. Wages for "women's work" were controlled, in part at least, as an after effect—necessary but with less theoretical importance—of the substitution policy.

In regulating the wages of women when on men's work, the Ministry had, in safeguarding the men's established rates of pay, to interpret the principle of "equal pay for equal work." In dealing with those of women on "women's work," it had to attempt—though this was less categorically stated—to secure for the workers a "living wage." Both these phrases, apparently self-explanatory, are notoriously difficult to interpret in fact.
CHAPTER II.


I. The First Stage: Control by Recommendation.

(a) The Need for a Standard of Payment.

In July, 1915, when Mr. Lloyd George promised that there should be no sweated wages for those who undertook munitions work, neither the normal employer nor the unorganised woman worker had any formulated standard as to what wages the women who took men's work should receive. Women in the metal and chemical trades before the War had been employed on unskilled work of a kind not commonly undertaken by men and paid for at low and varying rates; 12s. 8d. and 11s. 10d. were given in an official report¹ as the average weekly earnings in the two groups in September, 1906. The Trade Boards' minimum rates, though increased to 3d. and 3½d. an hour—some 14s. to 16s. a week—gave barely a living wage by July, 1915, when food prices had risen by a third above the level of the previous year; yet these were the only definite schedules for women's wages which could be quoted in any but a few trade groups. The unemployment and long periods of work on short time during the previous autumn and winter had shaken any standards of payment that had been growing up in those women's trades, such as dressmaking, that had suffered most from the War; while at the same time numbers of soldiers' wives and dependants with State separation allowances wished to go out to work, from the double motive of "helping to win the War" and of supplementing their allowances. There was great danger that partly from patriotism, partly from ignorance and lack of esprit de corps, the very varied types of new workers needed in the munition trades would accept too low wages and pull down the standard of living for themselves and for the men whose work they took.

The agreement between the Government and the Trade Unions, made in March, 1915 and embodied in the 2nd Schedule of the Munitions of War Act, had indeed laid down the principle that the admission of semi-skilled or female labour as a result of the relaxation of existing demarcation restrictions should not "affect adversely the rates customarily paid for the job." This was, however, rather a general statement of the fundamental principle of labour dilution from the craftsman's point of view than a definite direction as to what should be done, especially in the case of the woman taking

¹ Cd. 5814 of 1911, Cd. 6656 of 1913—"Earnings and Hours" Enquiry by the Board of Trade.
men's unskilled or semi-skilled work. Further, it was intended to refer directly only to piece rates, which varied from firm to firm, while the standard district time rates established in the engineering trades were unprotected. During the summer and autumn of 1915 it became increasingly clear that definite regulation of the wages of women on "men's work" was necessary if the opposition of organised labour to dilution was to be overcome, and the services of skilled workmen were to be made fully available for the greatly extended production of munitions required by the Country.

Only after full deliberation and after some months' delay did the Ministry decide on a policy of detailed regulation of women's wages. This caution was probably in part due to unwillingness to impede the all-important process of labour dilution by any restrictions the necessity of which was not proved, and in part to reluctance to embark on a new departure involving much administrative machinery. It was under strong Trade Union pressure that the compulsory regulation of wages for women on "men's" munition work was decided on at the end of 1915 and introduced in February, 1916, after the passing of the Munitions of War Amendment Act. During the previous six months, workers and employers as a whole, as well as the Department, were feeling their way to a settled wages policy.\(^1\)

\(^{(b)}\) Trade Union Representations, September, 1915.

Representations made to the Ministry soon after its establishment showed the prevailing uncertainty as to the payment of women workers. Thus, on 8 September, 1915, a deputation from the Workers' Union appeared before Dr. Addison, and asked that a minimum district time rate should be fixed for women in the engineering trades. The Union had agreed with the Midland Employers' Federation that women employed on the same work as men should have the same piece rates, but the non-federated employers had not come into line. Further, there was great disparity in the local rates paid to women munition workers; thus, a great Sheffield firm paid a woman learner 8s. a week for shell work, while a Preston firm paid 16s.; a large employer at Halifax paid 15s. a week to shellmakers for the morning eight-hour shift, 17s. for the afternoon shift, and 19s. for the night shift, while another Halifax firm paid 25s. for a 51 hours' week. The average earnings for women at one of the largest munition works in Birmingham reached 7d. an hour, while the rates paid by another large Birmingham firm worked out at 2\(\frac{3}{4}\)d. an hour for the same operations. Dr. Addison, in replying to the deputation, said that the Ministry of Munitions had no power to fix a minimum rate of wages, but where any firm paid less for particular work than the district rate, the Department would be glad to be informed (since the Fair Wages Clause might be brought into operation). He asked for details of the agreement arrived at with the Midland Employers' Federation, and referred to the desirability of arriving at agreements

\(^1\) Cf. Vol. IV., Part I., Ch. IV.
in the various districts for fixing a probationary rate of women's wages.

It was partly on account of this reliance on local Trade Union action and on the operation of the Fair Wages Clause—most valuable in some women's industries, but of little use in districts where new work or new processes were being introduced—that the compulsory regulation of wages was delayed during the autumn of 1915.

At the Trades Union Congress at Bristol in the same month, Miss Macarthur on behalf of the National Federation of Women Workers, moved the following comprehensive motion, which was carried unanimously, with regard to women enrolling for "war work" on the special register opened for them by the Labour Exchanges in the previous March.

"In order to prevent the depression of the standard of living of the workers, adequate safeguards must be laid down for any necessary transference or substitution of labour.

"The Congress therefore urges:—

(a) That all women who register for war service should, as a condition of employment, join the appropriate Trade Union, and that Trade Unions which exclude women should admit them.

(b) That equal pay for equal work shall be maintained.

(c) That in no case should any woman be drafted from the War Register to employment at less than an adequate living wage, and that the stereotyping of sweated conditions must, at all costs, be avoided.

(d) Adequate training with maintenance must be provided when necessary."

Miss Sloan (also of the National Federation of Women Workers), in seconding this motion, said that many women doing "war work" were getting very low wages, and that there were numerous cases where women were working seventy hours a week for £3 ½d. an hour.

II. The Central Munitions Labour Supply Committee.

Immediately after this Congress, at a Conference of Trade Union Executives at Central Hall, Westminster, the appointment was announced of the Central Munitions Labour Supply Committee. This Committee, as is explained elsewhere,1 was called into being primarily to promote the dilution of skilled labour, but found itself compelled at once to deal with wages. Such action was contrary to the expectations of those responsible for its appointment. It was, however, wholly essential, if the Government's policy of dilution was to succeed, or even to receive the serious attention of the skilled workman, since the latter's reluctance to accept labour dilution was based fundamentally on wages, and on the fear that it would in the long run mean the degradation of the standard of living of his class.

1 Vol. IV., Part I., Ch. III.
Although the wages policy of the Committee was not in itself remarkable, yet its few weeks' work was of great importance throughout the Ministry's subsequent control of wages. At its first meeting on 22 September, 1915, a wages sub-committee was appointed "to consider and report on the fixing of wages in connection with the introduction of semi-skilled or unskilled labour where only skilled workmen had previously been employed." This sub-committee, consisting of Mr. Allan Smith, Secretary to the Engineering Employers' Federation, Miss Macarthur of the National Federation of Women Workers, Mr Kaylor of the Amalgamated Society of Engineers, and Mr. Glynn West, representing the interests of the Supply Departments of the Ministry, drafted, on 24 and 27 September, recommendations for the payment of women and girls on men's work. These were accepted with one addition by the main committee, and were presented to Mr. Lloyd George, who wrote in reply on 14 October, "You will, of course, be aware that the Minister has no power to promulgate any binding regulations on these matters except as regards . . . the National Factories. He proposes to circulate these recommendations forthwith to the organisations representing the parties concerned for their information and . . . to elicit criticism and suggestions. Pending the result of this step, the recommendations of the Committee will be provisionally accepted as far as regards establishments for which the Minister is directly responsible." The proposals, with some further modifications, were considered on 27 October, at a conference of the Central Munitions Labour Supply Committee with representatives of Amalgamated Society of Engineers, and were accepted (together with those issued as "Circular L.3," defining the wages of unskilled men under dilution schemes), as one of the conditions under which the Amalgamated Society of Engineers would agree to dilution. On 28 October, the agreed proposals were sent out as "Circular L.2" to all the new National Factories and to controlled establishments. The circular was binding on the former, but was, as the Minister had explained, only issued by way of "recommendation" to the latter.

III. Issue of Circular L.2.

Circular L.2 acquired a unique position in the history of the dilution of labour. Officially, its original office heading was transformed four months later into that of "Statutory Order 181," of 1916, and it reappeared at intervals under the different numeration attached to successive issues of such Orders. To those sections, however, of the industrial world whom it immediately concerned, it was known familiarly as "L.2," and as such it will be referred to in the story of its difficult administration.

Circular L.2, like the twin circular L.3, was set up to provide a ring fence, or rather (as appeared later) a system of barbed wire entanglements, round the skilled workman's standard rates. Its main provisions were as follows:—

(1) Women introduced into munitions work "of a class which, prior to the War, was not recognised as women's work," should receive
the same piece rates and premium bonus allowances as were customarily received by men for the same job, on the principle that "on systems of payment by results equal payment shall be made to women as to the men for an equal amount of work done." (Clause 8). When, therefore, the new women workers were employed on any of the various forms of payment by results, the Circular, in so far as it was observed in the spirit as well as the letter, prevented the underselling of male by female labour.

(2) Piece rates and premium bonus systems were regarded as the concern primarily of the individual factory, to the needs of which they were adjusted. Time wages on the other hand were standardised throughout districts in the engineering trades. They embodied the results of years of collective bargaining, and represented a standard of living which the skilled workman expected to find unimpaired after the war, when the transitory woman worker, and the pressing demand for repetition work, with its opportunities for systems of payment by results, should alike have departed. These time rates were therefore specially safeguarded by the stipulation that women employed on work customarily done by fully-skilled tradesmen should be paid the time rates of the tradesmen whose work they undertook. (Clause I.) It was not at the time expected that such direct substitution of women for skilled workmen would be common, if indeed it took place at all. For the very much larger class of women who were coming into engineering shops for shell production and other forms of work hitherto done by semi-skilled or unskilled men,¹ a conventional time rate of £1 a week, "reckoned on the usual working hours of the district for men in engineering establishments," was laid down, with overtime, night shift, Sunday and holiday allowances payable to men. The £1 time rate was below that of the unskilled labourer in practically all engineering districts. But it was not considered that one woman was the equivalent of one man. Further, the possible danger of lowering the rates payable for unskilled and semi-skilled male labour, was not considered at the time. This time rate was guaranteed to piece workers and those employed on premium bonus systems.

The circular thus established, or attempted to establish, a uniform standard time rate disregarding local differences in cost of living or in factory organisation, for women on "men's" munition work throughout the country—a method of payment which was, of course, wholly new to the engineering trades or, indeed, to any twentieth century industry except those covered by the Trade Boards. The Central Munitions Labour Supply Committee had inserted in its early drafts words fixing the £1 weekly wage for unskilled workers as a minimum, not a standard, rate; and great stress was laid on this intention by members of the National Federation of Women Workers in discussion of the revision of L.2 just a year later. These words were, however, omitted from the circular on the recommendation of Dr. Addison, who urged that no ambiguous directions should be sent

¹ In fact, the majority of women introduced on men's work, at this time, did not displace or replace men, but started on new machines in new shops.
out. "What employers are asking," he wrote, "is how much they are expected to pay, and we must be able to give a definite answer to the question." Recommendations drawn up by the Committee for the payment of girls under eighteen, were also omitted by Dr. Addison's desire, since they presented many points needing further consideration, and the Committee had urged the speedy issue of the circular.1 "L.2" was a by-product of the dilution campaign, and was meant to be a simple weapon which could be placed quickly at the disposal of the promoters of dilution.

IV. Reception of L.2.

The "recommendations" of L.2 were by no means universally adopted by the establishments to which they were sent during the autumn and winter of 1915-16. Controlled firms were working at high pressure under very difficult conditions at the period, and it was easy to neglect or postpone the consideration of one among many official circulars, although the representatives of the women's trade union chiefly concerned agitated with much energy for the observance of L.2 by a number of leading firms. The scale of payments laid down in the circular met, even at this stage, with considerable opposition from employers, who in some cases said that it would not be worth their while to substitute women's labour for men's, under such terms. Various time rates, sometimes above the £1 standard, but more frequently 3s. to 5s. below, were being offered to and readily accepted by women on men's work at the time. Thus, at a National Shell Factory in which women were introduced with much success just before the issue of L.2, an initial wage of 17s. for a 54 hour week was given, and the management recorded that in the first fortnight after the women started work, six hundred applications had been received from other women for the fifty vacancies available.2 On 8 December, 1915, the Central Munitions Labour Supply Committee received a deputation from the Coventry Engineering Employers' Association, whose members criticised the circular partly on the grounds of the disturbance of piece rates if women (who would presumably work more slowly than men) were yet to earn by piece work as much in excess of the skilled man's time rate, as the latter normally earned; and partly on account of the effect of the high rates prescribed for "men's work" on existing standards of payment for women. The first of these criticisms was based on a misunderstanding of the circular. To the second the Committee replied that the recommendations were framed as a temporary measure with a view to facilitating the introduction of female labour during the war period for munitions. Where women were engaged upon work which was customarily recognised as women's work entirely different circumstances obtained, and L.2 would in itself provide no justification for an alteration of wages in the latter case. The deputation was said to be satisfied with this (perhaps unduly optimistic) statement.3

Apart from the low existing standard of payment to the woman worker, and her readiness to begin shell work at less than £1 a week,

1 M.W/132834. 2 C.E. 717/4. 3 C.M.L.S.C. Minutes.
there were other difficulties at this time in the observance of the L.2 rates. The women concerned were normally only learning their work, and employers were feeling their way, often amidst considerable opposition from their skilled workmen, both as to the processes on which diluted labour should be employed, and the level at which piece rates, perhaps for new work, should be fixed. This temporary uncertainty as to piece rates led to complaints which sometimes were, and sometimes were not, justified, that the Ministry's circular was being disregarded through the employment of women (especially on shell work) at rates lower than those paid to men. Thus on 17 November, the standing sub-committee of the Central Munitions Labour Supply Committee "considered the situation" at Messrs. Beardmore's Paisley Works, where a strike of the women workers was threatened owing to the refusal of the firm to adopt Circular L.2,¹ for which the National Federation of Women Workers was pressing; but the Ministry had no power to enforce its recommendations beyond despatching an official telegram calling the firm's attention to the "desirability of conforming with the terms of the circular."²

V. The Munitions of War Amendment Act, Statutory Control of Wages.

With these and other reasons for the non-observance of L.2, it became increasingly clear that the system of settling wages by recommendation was unsettling and unsatisfactory both to employers and employed. A demand for compulsory regulation was made at a conference with trade unions convened by the National Advisory Committee on 30 November, and the Amending Bill presented on 9 December contained a clause giving the necessary powers. Before the Bill became law there was a further very important conference on 31 December, 1915, between the Minister and representatives of the Amalgamated Society of Engineers, when cases were quoted of refusal by employers to apply the circular because it was not obligatory. The Society, through its executive council, promised its "active co-operation" with the Ministry's dilution policy "provided that the Government pledged itself to incorporate in the Bill the power to enforce the rates of pay and conditions of labour as set out in

¹ C.E. 187/5.
² C.E. 187/5, etc. One of the reasons given by the firm, and by another Clyde district firm, Messrs. Mavor & Coulson (who were equally met by difficulties as to their women workers' wages), for not complying with Clause 7 of L.2 as to piece work payments, was the fluidity of piece rates at the time. Both firms subsequently explained to the Special Arbitration Tribunal that their piece prices for shell work had been fixed too high in the pressure of the previous summer. Women on piece work at the second of the two firms could, it was stated, earn £2 5s. to £3 per week, whereas if paid at the men's temporary piece rates they would have to be paid £11 6s. per week. The points at issue in these two cases were difficult to disentangle. It was not ultimately claimed that the women must receive the men's piece rates, which had been in operation for too short a time to be established. The N.F.W.W. however claimed that the piece rates should be finally fixed so that the women shell makers should be able to earn as much above time rates as men would have received, if employed similarly on piece work.
documents L.2 and L.3 in controlled establishments." Little opposition was raised to this during the House of Commons debates on the Bill, and it was duly provided in section six of the Munitions of War Amendment Act of 27 January, 1916, that—

"Where female workers are employed on or in connection with munitions work in any establishment of a class to which the provisions of section seven of the principal Act......are for the time applied......the Minister of Munitions shall have power by Order to give direction as to the rate of wages of the female workers so employed."

Circular L.2 was accordingly after some slight delay reissued on 28 February, 1916, as a statutory Order. Its previous recommendations were, in accordance with the section just quoted, made mandatory on all firms within the ambit of the leaving certificate rules\(^1\) to which it was applied by Order. Considerable impatience had been expressed locally at its non-appearance, since women had by this time been employed in certain districts for at least a year on "men's" munition work, without the protection of any authoritative scale of payment. This perhaps accounted for its final issue in the form in which it had been sent out in October, 1915, without further revision.\(^2\)

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\(^1\) See Appendix I. The Order was not applied to explosives and chemical works (cf., L.R. 142/34).

\(^2\) Mr. J. C. Smith (head of the wages section) wrote to the General Secretary of the Ministry of Munitions, on 21 February, 1916: "I have reason to believe that unless the main provision of L.2, the guaranteed time rate of £1 per week, is made statutory there will be an extensive strike in Manchester before the end of next week. I venture to ask whether it would not be possible to make this provision statutory forthwith, leaving the details to be elaborated by whatever machinery is set up under Section (6) of the Amendment Act. There are some details in L.2 with which I do not agree; there are others which I do not understand. But whatever one may think of the principle of a flat national rate, the £1 a week has caught the imagination of women workers and it is vain to argue the point." (M.W. 92329.)

It is worth while to recall the fact that, according to the Board of Trade, the £1 flat national rate, which women workers so greatly desired, was in December, 1915, worth only 13s. 8d. in food purchasing power, as compared with its value in July, 1914.
CHAPTER III.

"MEN'S WORK" IN 1916.

I. The Interpretation of L.2.

Few of the women who cheered Mr. Lloyd George on the Embankment on 17 July, 1915, can have realised the difficulties that would arise in applying the principle of "Equal pay for equal work," even within the limited field in which the attempt was first made. It may be doubted whether even the committee responsible for the drafting of L.2 foresaw what omissions and obscurities would be revealed, what conflicting interpretations would be offered, when the circular was applied to an industry so complex and opinionative as Engineering. The difficulties were partly genuine and inevitable, partly factious; they sprang chiefly from the suspicion of labour dilution and all its concomitants felt by the skilled trade unionist; and the suspicion was not at all allayed by the fact that the body that drafted the original recommendations for the payment of women substitutes on munitions work had as many representatives on it of Labour as of Capital.

A clause at the foot of Circular L.2 referred all questions of its interpretation to the Minister of Munitions, and much labour was required during the first year of its history to interpret the original drafting of the circular on the points that follow. The questions raised illustrate so fully both the attitude of the exclusive organisations of skilled workmen to the whole process of labour dilution during the War, and also the permanent industrial difficulties produced by the introduction to skilled work of unskilled or partly skilled workers, that it is worth while to follow them in some detail.

The difficulties occurred chiefly with regard to the apparently simple provisions of Clause 1.

"Women of eighteen years of age and over employed on time on work customarily done by men, shall be rated at £1 per week, reckoned on the usual working hours of the district in question for men in Engineering Establishments.

"This, however, shall not apply in the case of women employed on work customarily done by fully skilled tradesmen, in which case the women shall be paid the time rates of the tradesmen whose work they undertake. Overtime and night-shift and Sunday and holiday allowances payable to men shall also be made to women."

Work "Customarily" Done by Men.

In connection with the apparently innocuous word "customarily" it was possible to open up the whole question of the pre-war division of labour between men and women in the munition trades. Did "customarily" refer to the custom of the shop, the district, or the
country as a whole? The answer was not easy. Thus, fuses had before the war been made by men at Woolwich but by women in the Midlands and elsewhere. In this case the Department and the Special Arbitration Tribunal held that fuse-making was not men's work, since its classification depended on the pre-war custom of the country at large.\(^1\) This principle was applied in a number of similar cases, though it was necessary to modify it a year later in connection with women doing fully skilled work.\(^2\) Thus, although at Sheffield, shell had, it was claimed, before the war been made by fully skilled men, it was held by the department, to the considerable discontent of some of the workers, that this practice was contrary to that of the country as a whole,\(^3\) that the majority of shell-making processes were semi-skilled or unskilled work and entitled the woman employed on them to the £1 time rate of L.2, not to the full district rate for engineering tradesmen.

**ALLOWANCES FOR OVERTIME AND NIGHT WORK.**

Provision was made for overtime and night work in Clause 1, just quoted, and Clause 12, which laid down that "overtime... allowances shall be paid to women employed on piece work.... on the same conditions as now prevail in the case of men in the district in question for overtime work." This, however, left ambiguous the position of the woman doing a man's unskilled or semi-skilled work and paid at his piece rates, but not at his time rates, which would normally be considerably above hers. Should her overtime payments be calculated on the basis of the £1 a week time rate to which she was entitled? Or should they have some reference to the man's nominal time rates? Overtime was sufficiently extensive and prevalent in the first half of 1916 for the problem to have practical importance.

The question came before the Central Munitions Labour Supply Committee in January, 1916, with reference to a dispute between Messrs. Vickers, Erith, and the National Federation of Women Workers. The firm argued that the extra pay of women piece workers for night work and overtime should be calculated in accordance with their guaranteed £1 time rate. The National Federation of Women Workers, as represented by Miss Macarthur, said that this would not be giving equal pay for equal work; the Central Munitions Labour Supply Committee, however, upheld the firm.

The same question was brought forward on 24 February, 1916, in a communication from Mr. la Brooy, of Woolwich Arsenal.\(^4\) Women workers making up cartridges in the Danger Building were, he explained, in calculating overtime\(^5\) rated at £1 a week, even though they were

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1 M.W. 92329/3 and H.W. 64182.
2 See page 42, Chapter IV.
4 M.W. 92329.
5 The weekly average of overtime for all the women employed at Woolwich Arsenal was, a few weeks after this communication, 13 ½ hours. The question was therefore of considerable interest to those concerned. The employment of women at the Arsenal was being rapidly rearranged in the early months of 1916, and their payment and method of work under the special conditions prevailing there was the subject of much negotiation and discussion at the time.
actually on piece work, while men doing the same work and producing the same output had their overtime calculated on their time rating of 33s. The women’s total weekly earnings were therefore 12s. 3d. less on night shift, and 5s. 3d. less on day shift than those of the men. This, they said, was in direct contravention of promises made in the House of Commons to the delegates of the various organisations who waited on Mr. Asquith. On this point Mr. Beveridge, Sir H. Llewellyn Smith and Dr. Addison successively argued that the woman’s overtime rate must be calculated on her statutory £1 a week time wage. If the men employed by a firm were paid at “time and a quarter,” “time and a half” or “double time” for such work, the women were also entitled to extra payments, but these were to be calculated on their guaranteed time rate only. This principle was incorporated in a series of “Rulings on L.2” sanctioned for departmental use by Dr. Addison on 7 March, 1916, and it reappeared in later statutory orders. The “unfairness” of this system of calculating overtime payments was periodically urged by women workers; its justification clearly depends on the hypothesis that the women’s output would normally be less than the man’s under the same conditions, so that she would obviously obtain special advantages, if paid for overtime at his time rates.

Deductions for “Setting-up.”

The normal woman “dilutee” was unlikely, at least when she first began work, to be able to look after her own machine completely. “These recommendations are on the basis of the setting up of the machines being otherwise provided for,” was the heading of the L.2 Circular. Did this stipulation mean that in the case of a woman who did a man’s job except for the need of help in setting up her machine no deduction must be made from the prescribed wages? Clearly the standard rate of £1 a week was, under the wording of L.2, to have no deduction on these grounds. But was a deduction permissible in the case of a woman employed (like the majority of women shell-makers) on piece work in some form and paid at the man’s piece rates or claiming the district rate for “skilled” work? Mr. Lloyd George in conference with the Amalgamated Society of Engineers on 24 February, 1916, argued that such deductions might fairly be made if the total cost of the job, as done by the woman with the man’s help, remained what it was before the woman appeared in the factory.

On the one side it was sometimes urged by Trade Unionists that the employer who was introducing unskilled labour to fields hitherto barred should bear the cost of making this labour efficient in production. On the other side employers pointed out that a 10% deduction often by no means covered the cost of extra supervision and assistance and the replacing of spoilt material that was involved in the employment of unskilled male and female labour on skilled work.

The special Tribunal made a formal award on 17 January, 1917, for deduction up to 10% from the earnings of a woman needing special assistance for skilled work, in a test case put up by the A.S.E. with Messrs. Armstrong, Elswick (when the firm urged that the extra cost of
supervision was quite 25% of the woman’s earnings); and the decision was embodied in the same month in Clause 1.b (IV) of Order 49—a later version of L.2.

"In any case where it is established to the satisfaction of the Minister that additional cost is being incurred by extra setting up or skilled supervision due to the employment of women in place of fully-skilled tradesmen, the rates payable to women under these directions may, with the sanction of the Minister, be subject, for so long as such additional cost is incurred, to deductions not exceeding 10%, to meet such additional cost: provided that no women shall in any case be paid at lower rates than those prescribed by paragraph 1 (a) (i) of these directions"—the £1 rate for a 48-hour week.

The Working Week.

What was to be the hourly rate, i.e., what wages were to be paid where the three-shift system, or any other departure from the normal week of the district, was established for women? The flat time rate of £1 a week was based on the usual working hours of the district in question for men in engineering establishments. These hours were commonly 53 or 54 a week. Should a woman working 48 hours a week be rated at proportionately less? The question was frequently raised in the course of the year both before and after L.2 became obligatory; it was addressed to the Department the day after the Order was issued.

Thus on 3 January, 1916, the Secretary of the Workers’ Union wrote to the Ministry with reference to three employers at Halifax.1 The Union had been trying unsuccessfully to arrange for the following wages for women employed on eight-hour shifts:—Morning shift, 20s.; afternoon, 22s.; night, 25s. Could the Department intervene? The Ministry replied, quoting L.2: the women were evidently entitled only to 48/53 of £1, since the normal working week in the district for the trade was 53 hours. The Workers’ Union protested that such a decision would be most unfair; engineering wages were never reduced because of reduction of hours; the £1 in L.2 was clearly meant for an invariable minimum. A month later the same society wrote again to the Ministry of Munitions, to ask why no action had been taken in the matter, but the Ministry replied that they must stand by the terms of L.2 as indicated in their previous letter.2

The same complaint was brought forward at Manchester in March, 1916,3 and frequently in the course of the year. It was specially unfortunate that the Order should appear to penalise the employees of the firms which had learnt the advantage of short hours of labour before the war, and of those, which, sometimes in response to pressure from the Ministry, were experimenting on a three-shift system. The Ministry, however, had no choice but to maintain its ruling that payment in such cases must be made at the rate of a proportionate fraction of £1, until the amendment of L.2 and its issue as Order 888 on 21 December, 1916. The amended Order directed

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1 M.W. 92329.  
2 M.W. 72357.  
3 See Appendix IV.
that the £1 rate should be paid where the working week was 48 hours; where the working week was less than 48 hours, the £1 rate was to be paid for the working week and for additional hours, if any, worked up to 48; where the working week exceeded 48 hours, 6d. an hour extra was to be paid up to 54 hours. Thus the amendment met the grievance of the women who were receiving less than the sum which they regarded as their legal minimum wage; in doing this, however, it abolished the flat rate of £1 a week, that sum becoming a minimum, and introduced the principle of hourly rate.¹

**Alternatives in Substitution.**

(a) **Women doing Boys’ Work.**

L.2 did not prescribe rates of pay for women doing work previously done by boys. This, however, was a very common form of substitution especially in the early stages of dilution, partly because the apprentice of two or three years’ standing naturally knew more about his trade than the woman just introduced to it, and he could therefore frequently be transferred to a man’s work leaving his own job to a substitute, partly because, by upgrading the seventeen and eighteen-year-old apprentice, even at the loss to him of a good deal of instruction in his trade, the workshop was spared the internal friction caused by the introduction of a girl at a statutory wage considerably above that earned by the boy of the same age.

At what rates should a woman or girl taking the place of an unskilled boy or of an apprentice under twenty-one be paid? If she replaced an apprentice, should the point be considered that the latter in theory had low pay on account of the instruction that he received (a sometimes doubtful quantity in war time), whereas the substitute would get no training beyond what was absolutely necessary? These problems were propounded to the Ministry from many sources in the three months after the issue of L.2 as an Order.

Thus a firm of electrical engineers wrote from Newcastle, in March, 1916, acknowledging the receipt of circulars L.2 and L.3 and adding, "What we are really doing is utilising women’s labour, mostly girls under eighteen, for the purpose of replacing boys whose services it is now impossible for us to get. . . . Does the regulation as to paying women of eighteen years a minimum wage of 20s. a week apply?²

A firm of ship repairers at Shields made similar enquiries a few

¹ The arithmetical calculations required for assessing women’s wages on the basis of a weekly wage of £1 for a 53-hour week were a sufficient drawback to such a rigid basis. Thus when in April, 1916, a firm consulted the Department as to the weekly wages to be paid for a 45-hour week to its women employees on night shift (for which according to the men’s custom 11½ hours were paid as 15), the conclusion was obviously that it should pay £1 \( \frac{45 \times 15}{53 \times 11\frac{3}{4}} \) of £1. The firm expressed its willingness to pay at the rate of 6d. an hour in lieu of this (C.E. 815/23).

² C.E. 559/22.
days later on receiving the circulars\(^1\): "We have been requested by one of your officers to endeavour to arrange to put female labour upon certain of our small machines, thereby releasing boy labour to take over other skilled work in our shops, and we shall be pleased to know if the Minister has issued any instructions with regard to the rates of pay for female labour which displaces apprentice labour."

Sir George Croydon Marks, then serving as Dilution Commissioner on the Tyne, reported periodical enquiries from the district on this apprentice question; and special complaints from Manchester on the application of L.2 in the course of this spring were found to proceed largely from the same cause.\(^2\)

The Department answered these questions by an age distinction. Dr. Addison ruled (in March, 1916) that "where work is habitually done by boys over eighteen and practically never by boys under that age, L.2 should apply," and that women doing the work of lads of eighteen to twenty-one came under L.2; and firms making subsequent enquiries were given this explanation.

In spite, however, of this office ruling, the payment of women replacing apprentices remained a difficulty practical and theoretical. The engineers on the Tyne raised a fresh problem (on which the Ministry refused to dogmatise) by asking whether the woman replacing a senior apprentice was not doing a skilled man's work and therefore entitled to more than her £1 time rate. In June Mr. J. B. Adams asked the wages section for a circular on this apprenticeship question, "a point raised so often and about which Trade Unions in every town say they have not a ruling," and in July the following minute from Mr. J. C. Smith was issued by Mr. Rey as a Labour Exchange Circular\(^3\) to all Divisional Officers:

"Women replacing apprentices: Application of L.2:

The following rulings in connection with questions which have arisen as to the application of L.2 to women replacing apprentices are forwarded for your information:

1. Women employed on work done by apprentices under eighteen years of age, do not come within the scope of L.2.

2. Women employed on work done by apprentices of eighteen years of age and over do come within the scope of L.2. The test of which particular time rate such women are entitled to, under Paragraph 1 of the Circular, depends upon whether the work on which they are employed is in fact skilled man's work or not. It is to be noted that apprentices towards the end of their apprenticeship are frequently employed on work not distinguishable from that of a skilled workman.

\(^1\) C.E. 888/24.
\(^2\) M.W. 123923/8 and /10.
\(^3\) E.D. 43062/1916. C.O. Circ. 2588.
"I should be glad if you would bring these rulings to the notice of Labour Officers, Labour Exchange Managers and any other officers dealing with dilution of labour."

In the course of the following year (1917), when the payment to women of "semi-skilled" rates of wages was, under certain conditions, recognised, various cases were reported to the Department and to the Tribunal, in which semi-skilled, if not skilled, rates of pay were claimed for women replacing apprentices in their last year or two of training, even if the latter had earned only 13s. or 15s. a week. The Department held that each case could only be judged on its merits, according to the actual degree of skill involved. Women taking the work of senior apprentices were on occasion held to be doing skilled work. Members of the Engineering Employers’ Federation, however, repeatedly urged at meetings of the Special Tribunal and of the Employers’ Advisory Committee that the work was normally semi-skilled and as such entitled the worker to a rate perhaps above the £1 basis of L.2, but emphatically not equal to that of the skilled workman.1

(b) Girls on Boys’ Work.

The Ministry again did not definitely publish rules, such as the Munitions Labour Supply Committee had suggested in October, 1915, for the payment of girls doing the work of boys, whose labour grew constantly more costly with the growing scarcity of male labour. The special Tribunal issued one award (in April, 1916) prescribing the wages of girls taking unapprenticed boys’ work,2 and in the same month it recommended to the Ministry that girls’ wages for such work should be fixed in any Statutory Order at 16s., 14s., and 12s., at the ages of 17, 16, and 15. No separate Order was, however, issued, and the ground was covered for girls as for women, by the later "women’s work" Orders.

(c) Girls on Men’s Work.

The wages of girls under eighteen3 doing work "customarily done by male labour of eighteen and over eighteen years," on which the Wages Tribunal was asked in March to make recommendations, were fixed in July, 1916, by Order 456, at the following weekly time rates:—

18s. at 17.
16s. at 16.
14s. under 16.

Piece rates and premium bonus allowances were to be those given to men on the same work, less 10%, 20%, and 30% respectively at the three ages scheduled; time rates, as in the other women’s

1 M.W. 12329/4/5/10; M.W. 109452. Women doing the work of boys under 18 were subsequently paid under the rates described as governing "women’s work" (i.e., work not customarily performed by men). These rates, though below the L.2 scale were above the apprentices’ and even the boy labourers’ pre-war earnings.

2 Cf., award for the Stalker Drill Works, Sheffield, 9 April, 1916.

3 The number of girls under 18 employed on men’s work at this time was, naturally, small; they were, however, engaged on some processes such as rough turning shells, previously performed by men, and a dispute at the works of Messrs. Vickers, Barrow, heard by the Special Arbitration Tribunal in July, 1916, turned in part on the rates of pay for such girls.
wages Orders, were guaranteed to piece workers. These deductions were authorised after discussion by the Special Tribunal, on the analogy of those made, in many trades, from apprentices when on piece work also performed by men. Lower rates of deduction were, however, fixed for girls than for boys on the principle that a girl was not normally passing through a prolonged period of training, and was therefore entitled to rather higher earnings than those of a boy whose "instruction was his hire" (in part, at least). Representatives of the National Federation of Women Workers protested when this order was issued—and their protests were repeated at intervals by other women's organisations—against this system of deduction. They urged that it was an infringement of the principle of "equal pay for equal work," and also that it encouraged employers to put young girls on to unsuitably heavy work on grounds of economy. It is difficult to refute these criticisms, except on the ground that the younger girls—never numerous in such employment—probably cost rather more to the employer in wasted material and in supervision than did their elders.

No special administrative difficulties appeared in connection with this Order. It reappeared as Order 48 of January, 1917, when the girls concerned profited by the calculation of their initial rate like that of their elders, on a 48- instead of a 53-hour week. It was re-issued as No. 490 in April, 1917, when each of the three age groups received an advance of 2s. corresponding to the women's advance of 4s. A fourth class of wage earners, consisting of those under fifteen, was then inserted at a starting wage of 14s.

**Probation and Split Jobs.**

There remained two much more complicated questions connected with the skilled worker, which beset the Ministry even before L.2 became compulsory, and were made a pretext on which to delay the process of "dilution" by its opponents. (As such, the negotiations over them in detail belong rather to the history of dilution than of control of wages.) These were the questions of the payment of women on probation during the period before they had really learnt their work, and the still more knotty question of "split jobs."

It had been generally agreed that a woman starting on unskilled work should, if on time work, have her £1 a week from the start, without any deduction for her waste of time and material while she learned.1 Did the wording of Circular L.2 mean that a woman undertaking a skilled man's work should similarly start at his full time rate? Or should she start as a probationer at the £1 standard time rate, working gradually up to the full rate? Both on the Tyne and on the Clyde the Amalgamated Society of Engineers argued from the first issue of L.2 as a Statutory Order that a woman should start immediately at the full rates of pay.

Again, if a woman took part only of the work previously done by a skilled man—specialising on that part—should she be paid at his full time rates, and, if not, then what proportion should she receive?

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1 M.W. 92329/2/17/18.
The two questions were the subject of almost interminable discussion, and involved ultimately the whole question of the principle of the subdivision of labour and its relation to wages.

With the continued introduction of women into the engineering industry in the course of 1916, the position of the woman employed on a skilled man's work became of more than theoretical interest both to the more progressive woman worker and—much more obviously—to the craft unions, as well as to employers. The cases of women taking fully skilled men's work and claiming to step at once into the latter's rates of pay were numerically quite unimportant; and the trade unions' objection to any probationary period at lower wages in such work was apparently due, partly to a desire to block dilution, partly to the fear that standard rates would be tampered with, should such substitution take place. The A.S.E. representative on the Central Munitions Labour Supply Committee which was responsible for the original wording of L.2, admitted that the position of the fully skilled woman worker had been little considered in this direction.¹ "It is an utterly impracticable position," he stated, "to put a woman on to a fully skilled man's job, and it was never considered that such a contingency would arise when L.2 was drafted. At the beginning of L.2 we said, 'These recommendations are on the basis of the setting up of machines being otherwise provided for,' which is a definite and certain indication that dilution in our opinion was going to be confined to that class of work which lent itself to automatism and semi-automatism."

The women workers who entered the engineering trades in 1915 and 1916, if they were engaged on work said to be "skilled" (and the difficulty of defining the term is notorious), almost invariably performed only a part of the work of which the fully trained workman was capable. This form of substitution for the skilled workman involved a reorganisation of the engineering industry and a change in the employment of the skilled man, which obviously might become permanent. Employers constantly argued that "skilled" work when subdivided was no longer skilled; that women were normally only doing the "the semi-skilled part of a skilled man's job, and therefore did not deserve the tradesman's rate of pay." Workmen, on the other hand, feeling that by continued subdivision of processes almost all "skilled" work might on this basis become "unskilled," maintained that payment for such work should depend on the work done, not on the worker who performed it. Rightly or wrongly they held that the result to the employer was normally the same whether work was done by a number of "specialists" or by skilled craftsmen, and there was no justification in the capitalist's gaining by a reorganisation of industry due not to gradual evolution but to the pressure of war.

"There is a process of change going on continuously in normal times," said Mr. Ryder, the organising delegate of the A.S.E. for the Birmingham district, at a further prolonged conference on the payment

¹ Conference of Special Arbitration Tribunal, August, 1916.
for split jobs and probationary work held by the Special Tribunal in October, 1916, "in what is skilled man's work caused by automatic machinery and so on. But this is an entirely different question. This is a question of splitting up a job and giving part of it to women and part of it to the skilled man, who has hitherto done it all. Now that does not save time, it does not particularly increase production, because in a given number of articles the skilled man usually roughs down and finishes, but now a woman may rough down and the man finish. No time is saved, it is a mere matter of cheapening labour. If a skilled workman has done a particular piece of work in a certain shop the skilled rates should be paid to whoever does it under present conditions."

Representatives of unions which might be expected to be less exclusive in their attitude than the A.S.E., repeated this line of argument. Thus, Mr. Dawtrey, of the Steam Engine Makers' Society, who appeared with members of the United Machine Workers and the Toolmakers' Society at a later conference on the same day as that just referred to, assured the Tribunal that "the breaking up of work was common long before the war began, but because it was broken up into parts, that certainly did not mean that women and anyone else should come in, regardless of all considerations, and that is our position now. A skilled man's work is a skilled man's work, whether divided or undivided."

This remained the official view of the A.S.E. and of the engineering unions sharing its policy, although the skilled workman in various parts of the country showed a quite comprehensible readiness to claim rather more than the standard rates of pay and to insist on lower rates for his helper when the process of subdivision of labour gave all the hardest part of the work to himself. 1 In their negotiations over the application of L.2, however, the Central Executive Council of the A.S.E. and their orthodox members discountenanced such a system of payment. "The skilled man under present conditions" said one of their delegates in October 1916, "is willing to endure the strain (produced by sub-division) as long as he can, but his price is that the full rates for the other class of work shall be paid to whoever is put on the other operations." 2 They claimed the full standard rates for a woman taking any "part or portion" of a skilled man's work, and they opposed for a time at least, the establishment of any probationary period even for a woman taking skilled work in this highly limited form, on the ground that it might prove the thin end of the wedge which should introduce a separate and lower scale of payment for such work.

1 Cf. the dilution agreement drawn up at Messrs. Beadmore's, Glasgow, early in 1916, etc.
2 Gauge work was quoted as an instance of such sub-division in one of these prolonged discussions on the payment for split jobs in 1916. "The work," said a Trade Union delegate, "is done to an extremely fine limit indeed—a tenth of a thousandth of an inch. It is work which has to be done very minutely, and if there is not a little bit of easing off it is work which imposes an immense strain on the operative. Take screw gauges which have to be tested through a magnifying glass. The normal procedure is that the skilled man does his roughing-out as well as finishing, and it imposes a very severe strain on the man who has to keep to the one thing, when the ' roughing-out ' has been taken over by a woman."
Even before L.2 became obligatory the Department was called upon to consider both the recognition of a "probationary period" and the scale of payment for "split jobs" in the prolonged dispute at the machine-tool works of Messrs. John Lang & Sons, Johnstone, a cause célèbre in the history of dilution. Here after prolonged negotiations between the firm and the men concerned, a few women were being introduced at the beginning of the year to do certain work connected with the installation of lathes—the rough scraping and bedding of slides, planing and adjusting wedges for lathe saddles, etc.—hitherto performed by skilled men. The latter had been paid at or above the full district rate (they received 42s. a week plus bonus), while the women in part replacing them were paid at the £1 a week rate of L.2. The Clyde Dilution Commissioners¹ (who were engaged for some months of 1916 in fruitful negotiations for the introduction of female and unskilled male labour into the engineering works of the Clyde district) held that women were not entitled to the full district rate of pay unless they were doing "the whole of a fully skilled man's work," and further that a period of probation at less than district rates was permissible. The men would not accept this view, and accordingly, as the foot-note to L.2 directed, the Commissioners and the Paisley District Committee of the A.S.E. formally applied to the Ministry on January 27, 1916, for an interpretation of clause (1), paragraph (2) of L.2, i.e., whether a woman taking the place of a skilled man on a job (a) part, (b) whole, was entitled to the full district rate, and, if so, from when ?² On this the Minister issued the following formal interpretation, awarding a probationary rate for women doing fully skilled work until her output was fairly comparable to that of the man whom she replaced and pronouncing against the payment of the full district rate to women engaged on part of a skilled job, although such rates might be given eventually by agreement between employers and workmen.

"The Minister has carefully considered the questions submitted to him by the Paisley District Committee of the Amalgamated Society of Engineers, and by the Commissioners concerning the interpretation of certain points arising out of paragraph 1 of L.2."

"As a result the Minister desires me to state—

"(1) That where a woman is introduced to perform a part only of the work previously performed by a skilled man she is not, in the opinion of the Minister, entitled by the terms of L.2 to receive the full district rate customarily payable to that skilled man, inasmuch as she is not performing in its entirety the work customarily done by the skilled man. If, however, in the opinion of the employer and the representative of the men in the shop concerned, the nature of the work and the degree of efficiency acquired by the woman are such as to justify the subsequent application of the district rate there is nothing in the circular to preclude that rate being eventually paid.

¹ Mr. Macassey, K.C., Sir T. Munro, and Mr. I. H. Mitchell.
² M.W. 81953.
"(2) That where a woman takes the place of a skilled man on time rate and performs fully the work customarily done by such a man she is entitled to receive the full time rate customarily received by such a man as soon as her work can be regarded as fairly comparable to that of a man whom she has replaced.

"(3) As regards the further question raised—viz., the date from when the woman is, in accordance with the above answer, entitled to receive the full time rate customarily received by the skilled man, the Minister desires me to say that the Circular L.2 does not fix the length of the period of probation. It seems, however, to the Minister that this period should be comparatively short and that during such period the woman should receive a rate of remuneration which, while being less than full time rate, should in no case be less than 20 shillings per week."

On receipt of this interpretation, which upheld the previous opinion of Mr. Macassey and his fellow Commissioners, four hundred of Messrs. Lang's men promptly went on strike (1 February). The situation was discussed at an evening meeting on the following day with representatives of the Executive Council of the A.S.E. in Dr. Addison's room, when the Chairman and Secretary of the Society undertook to secure a prompt resumption of work. They were informed that the Minister would give them an interview to discuss their objections to his interpretation of L.2 though this could not be promised "as a condition of the cessation of an illegal strike." Instructions were telegraphed by the Central Executive of the A.S.E. to their members at Messrs. Lang's, and by 7 February the strikers were back at work.

On 24 February the promised conference with the Minister was held at Whitehall Gardens, when, in a prolonged and argumentative discussion, the representatives of the Central Executive of the A.S.E. maintained that the Minister's interpretation "struck at the root of the whole of their existence as skilled craftsmen," that a skilled job however subdivided was always a skilled job and entitled its doer to skilled rates even if twelve women were doing different parts of the work of one man, and that in the work at Messrs. Lang's, scraping the saddle and bed of the lathes, etc., was "a fully skilled man's work, and it had never been doubted in any part of the country that it was the work of a fully skilled man." ". . . "I submit to you," said Mr. F. S. Button (subsequently a member of the Committee on Production and of the Special Arbitration Tribunals for men's and women's wages), "that if we were to agree that by careful subdivision of our trade the work became unskilled or does not pass as that of fully skilled men, it means that the engineering trade will disappear entirely. . . . It is not the total cost of the job which you and your Department have to consider. You have to consider the time rate and having decided what was the time rate of the fully skilled man, you then have to decide whether the job now being performed by women was formerly done, although there were other jobs added to it, by fully skilled tradesmen. If it was, it seems to me there is no option but to agree with the interpretation which we venture to put forward."
The Minister, however, despite all criticisms, maintained his interpretation, and, in explaining this formally to the Chairman of the Commissioners on March 10th noted that his ruling overrode any possible decision of the Special Tribunal to which it had been suggested that the matter might be referred. "If any question as to wages to be paid to the women employed at Messrs. Lang's be reported as a difference to the Board of Trade and referred to an Arbitration Tribunal, it will not be open to the Tribunal to revise the Minister's interpretation of L.2 but (subject to the terms of the circular so interpreted) they will be empowered to make such award as to wages as they think just in the circumstances of the case. The principle adopted by the Minister is that the total cost of wages paid for the operation shall, as far as possible, remain the same after the introduction of women as before."¹

The settlement of the dispute at Messrs. Lang's after this pronouncement from the Minister was complicated by the cross currents of opinion within the Amalgamated Society of Engineers and by the varying attitude towards the dilution of labour taken up by firms and their workmen in the Clyde Area. By 8 May, 1916, however, Mr. Macassey was able to report a successful settlement on the previous day, after a Sunday spent in eight hours' negotiations with the Paisley District Committee and the Executive of the Amalgamated Society of Engineers, "and the most strenuous opposition to the Minister's interpretation and to the acceptance of the probationary period."

"To eliminate controversy" the Minister's interpretation, that a woman undertaking a skilled man's work in whole or in part should be paid fully skilled rates after a period "agreed on between the employer and representatives of men in the shop," was superseded by arranging a definite period after which she should automatically receive the skilled man's pay.

In return for acceptance of the principle of probation under these conditions the men's claim for the payment of full rates for "split jobs" was accepted. The A.S.E. had clearly gained an important victory in the dilution contest, although it was at the time confined to a single firm. Some effects of this victory will be discussed later.

The text of the agreement is given below together with some comments by the Chief Commissioner.

"AGREEMENT BETWEEN THE EXECUTIVE COUNCIL OF THE AMALGAMATED SOCIETY OF ENGINEERS AND MR. L. MACASSEY AND SIR T. MUNRO, WITH REFERENCE TO THE CASE OF JOHN LANG & SONS, JOHNSTONE. (May 7, 1916.)"

"In the case of women employed on part only of the work customarily done by fully skilled tradesmen, the women shall start and for a period of four weeks remain at £1 per week. They shall receive £1 5s. for the fifth week and then beginning from the sixth week rise by weekly advances so as to receive

¹ M.W. 81953.
at the end of the thirteenth week from starting the time rates of the tradesmen who customarily did the work.

"This arrangement is to be retrospective.

L. Macassey.
T. Munro.
J. T. Brownlie.
R. Young.

"This is to be subject to confirmation by the Ministry of Munitions."

Mr. Macassey, in sending this agreement to the Ministry, added, "I am satisfied with the arrangement. If the Executive of the Amalgamated Society of Engineers agree formally, the Minister can if he thinks right .......... make such an arrangement binding on all Controlled Establishments, as an addition to L.2. If I might suggest it, such an Order should be made at once, as many firms, I am informed, are starting women at the full district rate where they are doing part only of the work of a skilled man." "In this case, the difficulty at Lang's was largely caused because the firm started women on skilled work at £1 nearly four months ago, and have kept them at that." "Nothing could be more calculated to arouse bad feeling among the men."

This arrangement was confirmed by the Ministry on 23 May "on the clear understanding that it applied only to the establishment of J. Lang & Sons," and in July the Dilution Commissioners drew up similar agreements for the Tyne. Meanwhile on 24 June the question of the extension of the compromise thus reached had, in accordance with Mr. Macassey's suggestion, been referred to the Special Arbitration Tribunal, which was asked to decide "Whether any, and if so what, directions should be given by the Minister of Munitions as to a probationary period, at specific rates of wages, for women employed on work customarily done by fully skilled tradesmen."

Pending the decision of the Tribunal with regard to a probationary period, which involved detailed consultation with representatives of the employers and workmen to whose conferences reference has already been made, and after the issue (in July) of Order 456 fixing the wages of girls on men's work, there came a temporary lull in the history of the interpretation of Circular L.2 and the payment of women replacing men. The Ministry, in the summer of 1916, was more immediately concerned with regulations for the wages of women on "women's work." Complaints reached the Department at intervals, chiefly through proceedings before the Special Tribunal, of "wholesale evasions" of L.2 in certain districts and trades (such as electrical engineering). In answer to general complaints, such as were raised by the delegates who came up to discuss the "split jobs" problem, the Chairman of the Tribunal, Mr. Macassey, could but point out that if any employer was in default in complying with the Circular, the right course for critics was "not to let the matter grow into a serious item

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1 M.W. 92329/15
of trouble but to report it straight away through the Chief Industrial Commissioner for remission to the Tribunal to consider the matter and give a decision. The Tribunal had jurisdiction and if complaint was made to it could remedy the matter.” Only some half-dozen cases dealing with “men’s work” and the application of L.2 were, however, brought before the Tribunal in the course of 1916.

II. The Semi-skilled Worker and “Equal Pay.”

The position of the semi-skilled workers who, apart from those possibly involved in the special subdivision of skilled work, were becoming numerous by the summer of 1916, had hitherto been almost overlooked in all the controversy raised about the rights of the “skilled” man, and appeared as a new problem in the summer of 1916. Should “intermediate” workers receive more than £1 weekly time rate, meant, it must be remembered, to be a standard, not a minimum wage?

Already in May Mr. Macassey had drawn the attention of the Ministry to this point. “Semi-skilled men’s work done by women is raising much controversy in Glasgow. The Glasgow District Committee (of the Amalgamated Society of Engineers) has steadily said that women on such work should start at £1 and rise to the semi-skilled men’s rate, say 30s. to 32s. The Commissioners have told them that this was not provided by L.2. The Ministry must take some line on this point. . . . Something must be done to differentiate between women doing semi-skilled work from women doing unskilled work, in order to expedite and smooth difficulties out of the way of dilution. . . . I am quite prepared to recommend that women should after a period of qualification be allowed to work up to the semi-skilled man’s time rate, say, after 4½ months.”

Just before this the National Amalgamated Union of Labour in the Shields and Wear district wrote to the Chief Industrial Commissioner’s department that three local firms, all Controlled Establishments, had lately engaged female labour at 4½d. an hour for similar work to that done by the Union’s members, fitter’s mates, etc., who would have received 29s. to 31s. per week. “This is a great injustice to female workers who are members of our organisation, and . . . absolutely contrary to the spirit of L.2. We think you ought to use your authority to increasing these women workers’ wages to what would be paid to men.” Their complaint was forwarded to the Ministry, from which a reply was sent (on 3 June) to the effect that, “When women are employed in any Controlled Establishment on work customarily done by semi-skilled men, the Department has no power to insist upon payment of any higher time rate than that of £1 per week. Paragraph 8 of L.2 only refers to systems of payments by results, i.e., to piece work or premium bonus systems.” A claim brought by this Union and the National Union of General Workers for

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1 M.W. 81953.  
2 M.W. 109430.
an advance on L.2 rates for their members was refused in December, 1916, by the Special Tribunal on similar grounds, though the officials of the two societies urged that women in engineering and foundry works on the North East Coast were receiving at least 6s. a week less than men for the same work, ranging from the "semi-skilled category to that of heavy labouring in the shipyards in all weathers." Under the terms of L.2 there was no alternative to such decisions as these.

**The National Federation of Women Workers and "Intermediate Rates."

On 28 July the National Federation of Women Workers, in the person of its secretary, Miss Macarthur, who had recently sent vigorous protests to the Ministry on the inadequacy of Order 447 just issued to regulate wages for "women's work," asked the Ministry of Munitions to receive a deputation to discuss the revision of the Order regulating wages for women on "men's work." The chief criticism of L.2 in the letter making this request turned on the position of the time worker, and especially of the time worker doing work intermediate between that of the craftsman and the lower grade of unskilled work, with no rating guaranteed to her but the £1 a week of L.2. The principle of L.2—"equal pay for equal results"—had, according to the writer, been attained for those on piece work or premium bonus, but not fully for women on time work. There were intermediate cases such as (a) that of women on jobs commonly performed by skilled men—a problem which had "engaged the Ministry of Munitions and the Amalgamated Society of Engineers and was understood to be in process of solution"; (b) that of women on jobs formerly considered as belonging to semi-skilled and unskilled men, a question equally important in principle and perhaps concerning more people. With regard to these women, the £1 rate, if it was fair for the beginner, would, obviously, not be adequate payment to workers who had attained skill in a trade. "Time rates to semi-skilled men and labourers in engineering factories vary, but are everywhere above £1. Women have been very successful in shell work; Sir W. Beardmore, among others, has put upon record his opinion that the output of women on shell work is not merely equal to but better than that of the men they replace. The National Federation of Women Workers, therefore, ask that women engaged continuously on time on a semi-skilled man's job, may receive the rate current in the district for semi-skilled men's work, and that those engaged on unskilled work may receive the district rate for labourers."

This last demand in Miss Macarthur's letter, raised an important question of principle, in the application of the theory of equal pay for equal work. Mrs. Pankhurst, on behalf of the women at the demonstration on the Embankment, in July, 1915, had specifically asked for equal

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1 In August, 1917, however, the Special Tribunal, in a case brought by these same Unions against two associations of employers on the North East Coast, awarded rates of 35s., 32s. 6d. and 30s. for a 54-hour week to semi-skilled (women) workers and labourers in these shipyards.
time as well as piece rates for women substitutes, and had been told by Mr. Lloyd George that equal piece rates only could be guaranteed. Obviously, insistence on equal time rates for labouring work might even in war time be a drawback to the employment of female labour, though it is doubtful if this was a very valid objection in the state of the labour market in the late summer of 1916. On the other hand, the continued payment of lower wages to women than to men when on time work might lead to a repetition of the underselling of low-grade male by female labour, which had been known in the past. Dr. Addison, in consulting the Labour Advisor on the point noted (8 September): "My own view is against making this change, which departs radically from the principle of L.2 and also from the Treasury Agreement." He suggested instead that higher rates up to a maximum of perhaps 30s. might be fixed for some of the semi-skilled workers, "in recognition of special ability or responsibility." Mr. Henderson, in reply, proposed that the revision of L.2 should be referred to the Central Munitions Labour Supply Committee, its authors and sponsors.

Conference with the N.F.W.W. on the Revision of L.2, September, 1916.

Before this step was taken, a conference on the revision of L.2 was held on 11 September, 1916, at Armament Buildings, in accordance with the request of the National Federation of Women Workers. There were present at this conference, Dr. Addison and representatives of the Ministry, Mr. A. Henderson, Miss Macarthur, Miss S. Lawrence, Mr. J. J. Mallon, and four others representative of the National Federation of Women Workers, with Mr. Button and Mr. Kaylor of the Amalgamated Society of Engineers. Thus, the point of view of both the men's and women's trade organisations chiefly concerned in the payment of women substitutes was represented.

Miss Macarthur at this conference amplified the points raised in her letter of 28 July, and emphasised the disabilities of the woman time worker under the conventional rating established for her by the department. L.2 was being interpreted and administered "in a fashion never contemplated by the Labour leaders on the sub-committee which originally drew up the document."

The £1 weekly time rate should at least represent an absolute minimum, whereas numbers of time workers were receiving less than a pound a week. When the scheme was drafted in 1915, the two labour representatives on the Central Munitions Labour Supply Committee thought that £1 was to be a probationary rate, and certainly did not think that some workers would receive, as was the case, 48/53 of £1 if they were employed for 48 hours instead of the normal engineers' working week. Cost of living had increased very considerably since October, 1915, and this was an additional reason for at least maintaining the level of the wage guaranteed to women on men's work. It was most unfortunate that the word

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1 M.W. 132834.
"minimum" had been deleted from the first draft of L.2, and that its interpretation had been taken from the hands of those who drafted it.

It was therefore suggested, on behalf of the N.F.W.W. and the A.S.E., that an hourly minimum of 6d. should be fixed for women on men's work, with 7d. an hour for those employed at time rates for work done elsewhere "on piece," and an alteration on the same basis of the 15s. prescribed for "waiting time."

Mr. Button, of the A.S.E., in supporting this claim, raised the question of special payment to the semi-skilled worker, and urged that the position of "this big buffer class" should also be referred to the Central Munitions Labour Supply Committee, for up and down the country many difficulties on that point needed to be settled.

Dr. Addison in reply explained that he had considerable sympathy with the women who were being paid 4s. 6d. or a smaller fraction of £1; it had never been intended that they should receive less than £1 for a full working week, though he must confess that he did not think L.2 said this. The Order might fairly be revised in this respect. The demand for an hourly payment of 6d. and 7d., instead of the fixed weekly rate, should also be referred, along with the other questions raised, to the Central Munitions Labour Supply Committee, though at the final stage the opinion of the Special Tribunal would also possibly be asked, and it was essential that the Minister should, as had been established some months previously, retain the right of interpretation of the existing Order or its amendments. The point raised with regard to the semi-skilled worker would also be referred to the same Committee.

The deputation, at the close of the conference, expressed its complete satisfaction with what had been arranged.

III. The Revision of L.2.

RETURN OF L.2 TO THE CENTRAL MUNITIONS LABOUR SUPPLY COMMITTEE.

Two days later, in accordance with Dr. Addison's undertaking, Mr. Henderson was formally asked to summon the Central Munitions Labour Supply Committee (whose meetings had been suspended for two months, and whose consideration of wage questions had ceased on the appointment of the Special Arbitration Tribunal in the previous March), to consider the following subjects of reference.

"(1) Variations in paragraph 1 of L.2 for

(a) Women whose weekly rating is less than £1, because the number of hours is less than that of engineering men in the district.

(b) Women on work involving special ability or responsi-

bility though not customarily done by fully skilled men.

(c) Women on time, on work in other districts customarily
done on piece or premium bonus.

(2) Whether a variation in the general time rate of £1
per week is called for."

At meetings on 22 and 28 September, the Central Munitions Labour Supply Committee returned after nearly a year's pause to the considera-
tion of its much discussed circular, and drew up recommendations for its amendment. These were substantially though not verbally the same as those later inserted in Order 49, and on 25 October they were sent by the Department to the Special Tribunal for its final consideration, together with the question referred to it in the previous June, as to the probationary period for women employed on work of a class customarily done by fully-skilled men.

In November the Tribunal reported, giving recommendations the same, except in detail, as those of the Central Munitions Labour Supply Committee both for the semi-skilled and unskilled worker, including the special case of the time worker on shell manufacture.

On these two reports, a revised Order, varying slightly from both, was based.

A number of questions were asked in Parliament during November, as to forthcoming amendments of L.2 and on 15 November a statement was issued to the Press, foreshadowing the issue of an amended Order and giving details as to its higher scale of wages.

**ISSUE OR ORDER 888, DECEMBER, 1916.**

At last, on 24 December, 1916, Order 888 was issued, and was hailed in the publications of the trade unions concerned as "an overdue but real advance" on "the first faulty charter of the woman munition worker." It provided that the flat time rates should now be as follows:

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<tr>
<th>Hours</th>
<th>Rate</th>
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<tbody>
<tr>
<td>48</td>
<td>£1</td>
</tr>
<tr>
<td>49</td>
<td>£1 0s. 6d.</td>
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<tr>
<td>50</td>
<td>£1 1s. 0d.</td>
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<tr>
<td>51</td>
<td>£1 1s. 6d.</td>
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<tr>
<td>52</td>
<td>£1 2s. 0d.</td>
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<tr>
<td>53</td>
<td>£1 2s. 6d.</td>
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<tr>
<td>54</td>
<td>£1 3s. 0d.</td>
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It also made special provisions, though still in vague terms, for the semi-skilled or "intermediate" worker.

"Women employed on time"

"(a) on work of a class customarily done by semi-skilled men, or"

"(b) on work of an especially laborious or responsible nature, or"

"(c) where special circumstances exist, shall be paid according to the nature of the work and the ability of the women, in no case less than the £1 a week minimum for a 48-hour week, rising to 23s. for 54 hours."

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1 The only difference of importance was a draft clause inserted to meet the point raised by the National Federation of Women Workers at their September Conference: — "A woman employed on time or work customarily done in the trade on piece work and premium bonus, shall after not more than four weeks be paid 33% above the statutory time rate."

2 M.W. 132834.

3 M.W. 92329/19.

In other respects the Order substantially repeated the original circular L.2. A foot-note was added to the effect that a further Order would shortly be issued with regard to women doing fully skilled work, and a heading which stated that the Ministry's sanction under Section 4 (2) of the Munitions of War Act must be asked for proposals to give higher rates of wages to women on semi-skilled, laborious or responsible work, as in the case of the ordinary advances of wages.

The proposal to fix a maximum wage for the "intermediate" workers was dropped, as was that for a higher minimum wage for women time workers on operations normally paid at piece rates when performed by men. The Department, however, discountenanced this method of payment to women under dilution when cases were reported to it, and only sanctioned it under special conditions.¹

**ISSUE OF ORDERS 48 AND 49 (JANUARY, 1917).**

On 21 January, 1917, Orders 48 and 49 were issued consolidating and supplementing those of the previous year. The first was a repetition of Order 456 for the payment of girls on men's work, an order the application of which had given little trouble, despite the criticism raised by its regulation of piece work earnings. The second re-enacted the provisions of the Order issued in the previous month and gave detailed directions in eight subsections for the solution of the problem raised in many controversies over the position of the "skilled" woman worker.²

¹ Thus in June, 1917, considerable correspondence passed between the Department and a large rubber firm, consistently dilatory in applying the Ministry's wages regulations. On 19 June, the firm applied for leave to reduce the piece rates of the men in its balloon factory. When this was refused, they engaged women as learners to replace the men. These women they proposed to pay first at 27s., the minimum rate for unskilled women under the "men's work" Orders, then at the men's time wages. These amounted to 35s., whereas the men had frequently earned £4 at piece rates, which the women said they had been led to expect. "It is such actions as the above which go to make so much industrial unrest," commented the Chief Investigation Officer in reporting. The firm explained that their action was prompted by the certainty that the very high earnings procurable by these women on piece work would cause trouble and discontent in all the other departments of their works. The Department, however, refused its sanction to the employment of women on time in the manner proposed (C.E. 1153/4). In the case of a Lincolnshire firm quoted at the conference in September with the National Federation of Women Workers and Amalgamated Society of Engineers, the firm adhered to its method of payment by time to women shell makers, refused the demand of the National Federation of Women Workers for an 8d. hourly time rate to these women, but compromised by an undertaking to pay them 25 per cent. above the time rate laid down in the present and any future edition of Circular L.2 (C.E./565/4 II). On 9 January, 1918, the Special Tribunal awarded a rate of 7d. an hour for women employed on time on machine work on shell, plus the 3s. 6d. advance of the previous August (Cowlishaw, Walker & Co. and the N.F.W.W.).

² Order 49 was reissued in April, June, September and November, 1917, as Order 489, 539, 888, 1116. The wording was in no way altered except that the time rate for a 48-hour week became 24s. with corresponding increases for a longer week in accordance with the general rise of wages sanctioned for all women munition workers when on time work, in April, 1917. Order 48 similarly reappeared as Order 490, 540, 889 and 1120 with a rise of 2s. on the rates previously laid down. For the sake of clearness, however, each Order is referred to below under only one title.
1. The original direction given in October, 1915, for the payment of fully skilled work was made more precise by the insertion of three words. "Women employed on the work customarily done by fully skilled tradesmen shall in all cases be paid as from commencement the time rate of the tradesmen whose work they undertake" [l.b. (i)]. The A.S.E. had thus gained a point, for the clear statement of which they had pressed.

2. On the difficult question of the definition of "fully skilled work," the Order gave the following negative guidance. "A woman shall be considered as not employed on the work customarily done by fully skilled tradesmen but a part or portion only thereof, if she does not do the customary setting up, or when there is no setting up, if she requires skilled supervision to a degree beyond that customarily required by fully trained tradesmen undertaking the work in question." [l.b. (iii).]

3. With regard to the payment during and after probation for women doing part of a skilled man's work, the Clyde Dilution Commissioners' agreement of 7 May, 1916, was inserted in substance.

"Women who undertake part or portion only of the work customarily done by fully skilled tradesmen shall serve a probationary period of three months. The wages of such women for this period shall be reckoned as follows:

"They shall be rated for a period of four weeks at the time rate of wages to which they are entitled under those directions when employed on time, and from that rate shall then rise from the beginning of the fifth week until the end of the thirteenth week, by equal weekly increases, to the district time rate of the fully skilled tradesman, and shall thereafter be rated at the district rate of the tradesman whose work they are in part or portion undertaking." [l.b. (iii).]

No woman, it was provided, should be called upon to serve more than one such probationary period [l.b. (v)].

4. In cases where extra cost of supervision and setting up was required in the employment of women on skilled men's work, a deduction of not more than 10% might, as above stated, be made from the women's rates of pay, provided that these in no case fell below the time rates (£1 to £1 3s. according to the length of the working week) laid down for the unskilled worker [l.b. iv].

Just before the issue of this Order, the Special Tribunal gave its award on the much-discussed Lang of Johnstone case, in which the men asserted that the agreement of May, 1916, about workmen's split jobs had not been carried into effect. The Tribunal gave the same ruling (with effect from 28 February of the previous year) as that contained in clause 1.b (iii), to which indeed it served in part as raison d'être. Thus the men's contention, that a woman time worker, taking a part of a skilled man's work should receive the man's time rate, was conceded by the Government. The controversy and the decision that ended it are important for the light that they throw on the

1 Page 19.
skilled man's conception of the relation of pay to work; they are relatively unimportant from the point of view of the number of women affected. The decision, however, probably had the result of discouraging the introduction of women to skilled time work, such as tool room work; a woman who had served one probationary period could not be required to serve another, and a single probationary period would not give a woman the adaptability to new tasks which the skilled man possessed; yet the frequency with which new tasks appeared was the principal factor tending to keep these occupations time work occupations.\footnote{Cf. p. 41.}

L.2 now disappeared into the well-filled ranks of obsolete Orders, although the principles which it established still remained the basis for the payment of "diluted" women's labour.
CHAPTER IV.

"MEN’S WORK" 1917–1918.

I. Order 49 and its Reception.

The issue of Order 49, in January, 1917, closed the first period of difficulties in adjusting the wages of women on men’s engineering work, difficulties caused in part by the faulty drafting of Circular L.2, but really inherent in any attempt to cover the highly debateable ground of "substitution work." It included most of the modifications and compromises in the interpretation of the principle, delusively simple in appearance, of "equal pay for equal work," reached in more than a year's experience of labour dilution. It supplied an obvious omission in L.2 by recognizing an intermediate grade between "skilled" and "unskilled" work, and it admitted the difficulty of even a triple classification of women’s labour, as skilled, semi-skilled and unskilled, by providing for differential payments to different grades within each of these classes. It could not, however, by any amount of elasticity in definition, reconcile the fundamental opposition on some aspects of dilution between certain employers and employed; and its issue gave rise to protests from both sides (although the trade unions had obtained almost all their immediate demands in this direction during the previous year) as to the position equally of the woman doing skilled and of the woman doing semi-skilled or laborious work.

II. Skilled Men’s Work.

In principle, the Order laid no new burden on manufacturers. It made, however, more precise the general undertaking on the grounds of which dilution had been accepted and L.2 had been made compulsory, and it accordingly attracted much more attention than previous orders. During the first year of the Ministry's existence, and even later, comparatively few women were doing skilled men's work on munitions. As late as the spring of 1917, in the North East Coast area, only 5, out of 150 firms employing women on men’s work, reported that they had employees replacing fully skilled men, and these women numbered only 70 as compared with some 2,500 on semi-skilled and unskilled work. In the Birmingham district at the same time, out of some 900 munition firms making returns, only 39 by their own account were employing and paying women (680 in all) for fully skilled men’s work. There was indeed a natural tendency among employers to class as "semi-skilled," work in which a group of women replaced a skilled man, although the Department could not necessarily accept such a classification.

Thus a well-known firm of electrical engineers,1 in April, 1917.

1 C.E. 254/4B.
wrote to the Ministry, explaining that though they were anxious to promote output in every way, they were not prepared to introduce women into their works under Order 49, as the high rates of pay (for work previously performed by men dilutees) would cause great discontent among the 1,000 women workers employed by them at present and paid either on the much lower "women's work" rates or on the rates for unskilled men. Instead, they proposed a scheme according to which a group of their women employees doing skilled work in gangs under the supervision of a skilled man, were to be rated as semi-skilled; the work produced was to be paid for at the same rate at which it had always been paid for previously; and the money was to be distributed to the members of the gang, "in accordance with their hours worked and in proportion to their time rates, the women so employed being rated at the same rates now applicable to women engaged on semi-skilled work." "This scheme," wrote the firm, "has brought forth protests from the local representatives of the Amalgamated Society of Engineers, and while we believe that they are in full agreement with the principle, as being equitable and just, yet they are not prepared to agree to it so long as Order 49 is in force. As we are of the opinion that the men's objections to such a procedure could be overcome, if adequate safeguards were introduced to protect the men against the continued employment of women in skilled occupations after the end of the war, except by subsequent negotiations, we beg formally to request that Order 49 be withdrawn from our establishment, and that we be given a definite instruction to introduce the 'gang' system as described above, on the understanding that if any women were so employed at some fixed date subsequent to the declaration of peace—say, three months, such women should then be paid the time rates in accordance with Order No. 49."

In this case, in spite of the obvious practical advantages of such a gang system, the firm was informed that the Department was not prepared to exempt the establishment from the operations of Statutory Rule and Order No. 49 "unless some modification of the agreement with the skilled unions represented by that Order has been determined on which would be of national application. . . . The gang system proposed would be a contravention of the Order, in that women would be employed on work customarily done by skilled men, and would be receiving less than the skilled man's time rates."

In one of the most important engineering works on the Clyde a suggestion was formulated in March by the works dilution committee, at which for over a year representatives of the firm and of the operatives had met to settle problems of dilution. The scheme, which was sent up to the Ministry for sanction, proposed that women taking work previously done partly by skilled men, partly by apprentices, should receive wages based on an average of those received by their predecessors.¹ This compromise, however, the Department, in face of the principles established in its Order, could not accept. The

¹ C.E. 186/4B.
proposal was, indeed, although supported by the workmen concerned, opposed to the whole official line of policy of the Trade Union which mainly represented the interests of the skilled engineer in negotiation with the Government and with federated employers.

Protests Against Order 49.

During the spring of 1917 many employers protested collectively or individually against the application of the Orders made for the payment of women employed on skilled men's work. A meeting of twenty-five principal machine tool manufacturers convened by Mr. A. Herbert at the end of March to discuss the big gun programme passed a resolution that they would not employ women on the terms of the Order.¹ Equal disapproval was shown by the Executive Committee of Boards of Management at a meeting of the same date.² "The real effect of this circular," said the representatives of area organisation and of the Supply Department present, "would be to kill dilution. The principle of equal pay afforded labour its only chance of outing women after the war, as the payment of female labour at the rates entailed would saddle manufacturers with an intolerable burden of costs. Since the Circular laid down that if a woman did work which a skilled man had been doing, she was to get the same wages irrespective of whether the work required skilled labour or not, managers would not appoint women. . . . What was happening was this. They were now splitting up a man's task and allotting the skilled portion to skilled workmen and the unskilled portion to women, but because men happened to have been doing the unskilled portion also, it was laid down that women should get the same rate of wages as men. . . . In dilution women were not doing fully skilled work and to ensure their safety all kinds of foolproof devices had to be put in at extra cost."

The Employers' Advisory Committee, a small standing committee appointed by the Engineering Employers' Federation at the request of the Minister in the last days of 1916 for consultation with the Department,³ considered in April, 1917, in conjunction with a number of representatives of the Labour Department of the Ministry, the application of Order 49. The employers agreed emphatically that the terms of the Order, and especially its insistence on the full rates of pay for split jobs, made the employment of women "expensive and unremunerative." They urged that (unless the Government would undertake responsibility for the whole extra cost involved in the payment of women on this basis) the portion of the skilled man's work given to women should be recognised to be, as indeed it normally was, "semi-skilled" and should be paid for at definite intermediate rates. They offered, however, no advice to the Department as to methods of reconciling labour to these proposals, which it was pointed out would clearly be looked on as "a thinly disguised scheme for taking permanently away from the skilled men a large portion of the work which they had succeeded in securing to the skilled unions alone before

¹ L.R. 179656. ² M.W. 92329/42. ³ L.R. 5581; 5581/2, etc.
the War." In June and August of the same year, this Advisory Committee recurred to the question of women's wages (in relation to the proposed consolidated Order for their regulation, and to the vexed question of the application to women of the general wage advances prescribed by the Committee on Production). They again represented that the statutory wages payable were a definite drawback to dilution. "The skilled men," repeated the Secretary of the Engineering Employers' Federation, "are going to make the employment of women as expensive as possible so as to make it unattractive. . . . If that is the case the Department will not get dilution."

Other employers equally pointed out that the wages policy of the Ministry made dilution very difficult in any but repetition work, while from Manchester it was reported in July that "the position was very acute;" that it would be impossible to dilute on the basis proposed because of the unrest caused in workshops by the payment of the same rate to women "dilutees" and to skilled men; that it was impossible to pay wages under the terms of the Order, since "women could not possibly do as much in the time as highly skilled men," and that finally employers were prepared to take every "Order 49" case before the Special Tribunal rather than comply voluntarily with its terms.¹

The points at issue were clear and were irreconcilable. On the one side there was the irrefutable argument that a woman specialising on one part of the varied work of which a fully trained workman was capable, might, in course of time, get through her specialised job as quickly as the latter, or even more quickly, but that her potential value was less to the employer. She had not the man's "background" of workshop training, and was necessarily less adaptable. If the demand for the particular operation on which she was engaged fell off, she must learn the next process de novo, while a clause of the statutory Order under which she was paid expressly forbade her serving "more than one probationary period," at lower rates, for work which was in any sense skilled.²

This disadvantage in the employment of women at full district rates might never be felt unless an emergency arose. The vexed question of the comparative output of men and women on skilled work was the fundamental point of controversy, and on this employers naturally insisted. It was true that in many forms of repetition work, and in certain operations, such as those of oxy-acetylene welding, for which specially capable workers responding to intensive training had been secured, the skilled man's work was fully equalled under identical conditions by the woman substitute or "dilutee." Also, a concession had been made to employers by the much discussed provision that a woman doing part of a skilled man's work should serve thirteen weeks' probation, and that 10% reduction of wages should be permissible to cover cost of supervision, etc., for the "skilled" woman worker.

¹ The Special Tribunal dealt with a number of "marginal" cases of split jobs in the course of this summer. (Cf. the case of Crossley Motors, Manchester, and the A.S.E.)
² Cf. L.R. 5581/2.
"The Department was given to understand that this would be accepted by employers, and not seriously objected to by the Amalgamated Society of Engineers, and that dilution would proceed satisfactorily," reported an officer of the Wages Section of the Ministry and of the Special Tribunal. Against this, employers urged that the comparative value of women's skilled work measured by output ranged from 45% to 64% of the man's, and that an employer might have to "pay a woman for 60% of the output of a skilled man on the easiest portion of his work the same rate as they paid to the skilled man who had served an apprenticeship at his trade, and was competent to do a wider range of work." This made the skilled man restive, and women—it was said—being guaranteed more pay than they needed, had no incentive to work. "Though technically a woman might be on part of a skilled man's work, she was in fact often doing work less difficult than that done by women who were technically on unskilled or semi-skilled work, while she was paid about twice as much. Other women were thereby dissatisfied."

On the other hand, it was frequently represented by the workmen's representatives that (despite the alleged slowness and inadaptability of the inexperienced woman worker on skilled work) "by improved methods and machinery, and acceleration of output, employers really had to pay no more for the same amount of work done." The workmen had made substantial and probably permanent sacrifices in accepting dilution, whereas the employers had not suffered thereby under the special condition of war contracts, and had good prospect of benefiting after the War by the changed organisation of the engineering industry. Even if the output and potential value of the woman substitute were less than that of the skilled workman, yet employers had had, long before the appearance of women in engineering workshops, to recognise the permanent difference in rates of output even among men paid at the same hourly wage, and to allow for the lack of adaptability of workmen transferred from different branches of the same trade. In so far as munitions were, temporarily, produced at greater cost owing to the attitude taken up by organised Labour—this must be accepted by the nation. "Our position on this subject," said the Chairman of the Executive Council of the A.S.E. when referring in October, 1916, to previous negotiations on the question with the Department and with employers, "was definite and emphatic, and it was in effect that that was the price the nation had to pay for dilution in the engineering establishments of this country."²

Some modifications of the terms of Order 49, in so far as it dealt with skilled work, were considered in the spring of 1917, but were held up by labour troubles, and its directions reappeared in substance in the consolidated Order for women on munition work, issued after much inter-departmental negotiation, in May, 1918. The Depart-

¹ M.W. 179656.
² See speech by Mr. Brownlie on 15 October, 1916, at the conference previously referred to, on the acceptance of a "probationary" period for women on skilled men's work.
ment, while admitting the inconvenience to employers in some cases, and the difficulties placed in the way of the free extension of labour dilution, yet held fast by the principles of the Order, on the assumption that it was bound by its pledges to Labour in the past.

A FURTHER PROBLEM OF INTERPRETATION.

The wording inherited from the original circular on women's wages of October, 1915, still presented problems in 1917, when questions arose for decision as to the grade of skill, and therefore the rate of pay, required in certain processes of work.

A special interpretation of the word "customarily," over which so much discussion had taken place in the previous year (cf. Clause 1 (b), of Order 49, concerning women employed on work "customarily done by fully skilled tradesmen"), was called for by the difficulty that a decision as to whether a job was skilled or not frequently depended on the custom of the separate shop, rather than of the district.1 The Special Arbitration Tribunal, in reaching decision on claims for the skilled man's rate of pay, had constantly to take detailed evidence as to the custom not only of the trade, but of individual firms, of working a particular capstan, lathe, milling or drilling machine, by mechanics, labourers, apprentices or other semi-skilled workers. It was therefore suggested in April, on behalf of the Wages Section, "That the question of whether a particular job is a skilled man's job should be determined in the first place by the custom of the shop; if there is no clear and established custom in the shop, then by the custom of the district, and failing that, by the majority practice of the country." And the Special Tribunal in its function of advisor to the Ministry on women's wages, expressed its approval of this ruling, "on which in fact it had proceeded in several of its decisions." This, while a possible interpretation of the Circular, was not the principle on which the Department and the Tribunal had decided cases at first.2

It was explained to the Admiralty at the end of May that the payment of the skilled man's rate of wages to the woman substitute depended on whether the work in question was or was not customarily performed by men before the war. "Work," in this connection, covered not only the machine operated but the operation performed on the machine. In many cases women were using machines for simple work on which fully skilled men had customarily been employed for more difficult work, and in such a case the woman would not have the skilled man's wage.

The department steadily resisted in its rulings, both as to men's and women's wages, the position taken up periodically by trade unionists that a machine should be "rated" for "skilled" or "unskilled" work, without reference to the operative controlling it or the work turned out. The point is of obvious importance in the development of industry, quite apart from the special conditions produced by war.

1 L.R. 142.  
2 See Ch. III, p. 17.
III. Women on Semi-Skilled, Responsible and Laborious Work.

A new group of problems developed in 1917 over the position of the large class intermediate between the unskilled workers whose time rates were fixed by statutory Order and the skilled women whose rates of payment had been the battleground of the skilled trade unions. Their position had, as has been explained, received preliminary consideration in the previous year. Order 49, repeating in this respect Order 888 issued on the previous Christmas Eve, substituted for the flat time rate of £1 a week laid down in Circular L.2 an elastic method of payment "according to their ability and the nature of their work," for women on semi-skilled, responsible and laborious work. The numbers of women so employed were, even in 1917, much larger than those of the much discussed substitutes (in whole or in part) for fully skilled men. In practice, special rates had frequently already been given to individual "intermediate" workers and had, in some cases, as in the National Shell Factories in the autumn of 1916, been officially recognised for groups of workers, such as gaugers.\(^1\) The new clauses in the wages Order of 1917 authorised the payment of such special rates, which should be settled either by local agreement requiring the confirmation of the department under Section 4 of the Munitions of War Act, or by appeal to the Special Arbitration Tribunal, a large proportion of whose time was spent in the succeeding year in defining these intermediate rates. Experience has shown the extreme difficulty of distinguishing, especially in border lines cases, between "skilled," "semi-skilled," and "unskilled" workers; and the position of the three types of intermediate work known to the Statutory Order:— "semi-skilled," such as the operation of various types of lathe; "responsible," such as gauging and examining; and "laborious," such as much of the labouring required in shell factories and shipyards—can be best considered en bloc.

A Standard Rate for the Semi-Skilled Worker.

The Labour department of the Ministry had sometimes been reproached for failing to consult employers in the application of its numerous wages Orders. In the group of cases above described, it received the advice, some three months after the issue of Order 49, of members of the Engineering Employers' Federation, through the special consultative Committee described above.\(^2\) The latter repeated a suggestion frequently made by certain of their members before the Special Arbitration Tribunal since the previous summer, by proposing the adoption of standardised rates for the special classes of unskilled and semi-skilled workers, "since it was impossible to give the necessary time to gauge accurately the ability of each female

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1 Cf. also the circular issued in January, 1917, to National Shell and Projectile Factories, calling attention to the recent revision of L.2 and urging that in submitting further proposals for intermediate rates managers should consider the rates paid by local firms and by the Woolwich authorities to Government examiners.

2 L.R. 179656. L.R. 5581 and sub-files.
worker." The following time wages were proposed for a 54-hour week, allowing for the 4s. increase on Order 49 rates just awarded to all time workers.

i. Labouring.
   (a) Unskilled: 27s. (i.e., the minimum officially permitted, corresponding to the £1 of Circular L.2).
   (b) Special: 27s. to 30s.

ii. Gauging and viewing, testing and inspection.
   (a) Preliminary unskilled operations: 27s.
   (b) Intermediate grade and ordinary testing: 29s.
   (c) Special gauging, final inspection and testing: according to skill.

iii. Work on power hammers: 28s. to 30s.

iv. Driving overhead cranes: 29s. to 34s.

v. Hand work not customarily done by skilled men.
   (a) Preparation and rough file and chisel work, wire splicing and assembling of interchangeable minor parts: 27s. to 30s.
   (b) Selected assembly of minor parts: 30s. to 32s.

vi. Machine work.
   (a) Simple operations—
      Setters-up provided: 27s. to 29s.
      Setters-up not provided: 2s. to 5s. extra.
   (b) Higher grade operations—
      Setters-up provided: 29s. to 34s.
      Setters-up not provided: 2s. to 5s. extra.

These rates approximated closely to those already arranged for some groups of workers, although in a few districts higher rates were obtained.¹

The Ministry, in spite of such recommendations, deliberately left these payments for individual settlement and refrained from fixing statutory time wages for the semi-skilled workers as a class. The Trade Unions interested had, since the previous autumn, when the question was tentatively raised at the conference on L.2, shown that they would not accept a new general time rate or rates for such women workers which should be lower than men's; while employers consistently maintained that the average woman's work in these grades was still markedly below that of men, in quantity if not in quality.² At the beginning of July, however, Mr. Kellaway undertook as the result of a deputation from semi-skilled and unskilled

¹ Thus at the end of May, 1917, the National Federation of Women Workers and the men's Unions concerned, made an agreement after prolonged negotiations with twelve principal engineering firms at Coventry for the following rates to be paid locally to women on men's work: unskilled workers, 26s. 6d.; semi-skilled workers, 32s.; women doing part or portion of a skilled job, 40s. 6d. (the district rate of 45s. less 10%); those on fully skilled work to have the same rates as skilled men (L.R. 912).

² M.W. 132834; M.W. 109430; and conferences with Special Arbitration Tribunal, 28 July, 5 August, 23 and 26 October, 1916.
men on the North East Coast to recommend the insertion of a provision in the revised Wages Order then under consideration, that women doing the same work as the men represented by the deputation should have the same time rates, on the understanding that their output was the same.

Organised Labour and the Claims of the Intermediate Workers.

As the field of occupations entered by women widened, new industrial interests necessarily became involved. In its early negotiations with regard to the introduction of women into industry under War conditions, the Department had dealt so far as organised labour was concerned, almost exclusively with the A.S.E. and other skilled men's societies, and with one women's trade union, the National Federation of Women Workers. After over two years of war, however, unskilled and semi-skilled workmen, represented by the Workers' Union, the National Union of General Workers, the Dockers' Union, and the National Amalgamated Union of Labour, were becoming anxious lest the increasing number of women who were undertaking heavy labouring work in factory yards and shipyards or responsible work for which no payment by results was possible should accept lower wages than men (since in many cases they admittedly could do less work of this type in the same time), and should become the nucleus of a low grade class of blackleg labour. The risk of degradation of wage rates, already low in peace time for all such work, was probably greater in these groups of occupations than in the more highly organised skilled trades.¹

This difficulty was constantly raised in different forms in the course of the year. Thus, at a conference on 1 August between the Minister of Munitions and trade union representatives² a workman's delegate drew attention to "a grievance of long standing." "Women doing men's semi-skilled and unskilled work (especially driving cranes) do not," he complained, "get the same rate as men, for day work. . . . All the men who are working about such a job regard this as a case of the employer getting cheap labour. Undoubtedly, if a woman is

¹ The interests of this very large group of workers had not been consulted in the original negotiations over L.2, which had become mandatory as a result of a bargain between the Ministry and the A.S.E. In 1917, however, the unions of labourers and semi-skilled workers were asserting their position beside the craft unions (in part owing to the "privileged position" said to have been conferred on the latter by the Trade Card Agreement at the end of the previous year); their representatives appeared with those of the skilled engineering unions in the applications for general wages advances heard by the Committee on Production during the year; and in safeguarding the position of their members, the status of women workers in the same occupations became obviously important. The following increases in their female membership were recorded during 1916 by the unions chiefly concerned with women munition workers:—

<table>
<thead>
<tr>
<th>Union</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Union of General Workers</td>
<td>14,000</td>
</tr>
<tr>
<td>National Federation of Women Workers</td>
<td>10,000</td>
</tr>
<tr>
<td>Workers' Union</td>
<td>9,500</td>
</tr>
<tr>
<td>National Amalgamated Union of Labour</td>
<td>5,000</td>
</tr>
</tbody>
</table>

² L.R. 142/20. (Labour Gazette, May, 1918, p. 176.)
doing the same work as a man and is not getting the same rate of pay as the man whose place she has taken, his case is being prejudiced. At present, the onus is upon the Trade Union officials to prove that the conditions are exceptional, or that the work is onerous, in order to get a higher rate of pay than the minimum set down in the regulations. I think the onus should be upon the employer of paying the rate that he formerly was paying for the work that he is now getting done by the woman, or of proving that the woman is not doing the same work and the same amount." This last point appeared not infrequently on labour platforms. The Department, however, held that it was impossible to make the employer normally responsible for equal time payments according to this suggestion. The principal of equal pay for equal work could be applied without difficulty to piece work, which gave an automatic measure of output; equal time rates were guaranteed to the women who took the place of fully skilled men irrespective of the quality and amount of their work as the result of a definite bargain with the skilled men; in the case of time workers the assessment of output and efficiency was so difficult that to throw on employers the burden of doing it by a general Order would have been to institute a ceaseless casuistical discussion. While they did not lay down the principle of equal pay for equal work in the case of time workers, the Orders did not exclude the application of that principle in a proper case. The proper method of making this application, however, was by local agreement or by establishing a case before the Special Arbitration Tribunal.  

WOMEN AS CRANE DRIVERS: AN ILLUSTRATION OF THE PROBLEM.

The position of the women crane drivers, to which the delegate referred, is of interest in the tortuous story of the settlement of the "intermediate" workers' earnings. Employers corresponding with the Ministry during the summer of 1917, estimated the industrial value of women as compared with men in these groups of occupations as 3 : 5 or 4 : 6. But in driving a crane, an occupation often described as a picturesque instance of labour substitution, an untrained woman's lesser strength or lack of experience could hardly tell,  

although a beginner might from lack of practice mishandle heavy loads needing special judgment for their safe transference. The work involves nerve and good sense, but its accomplishment depends as much on machine as on personal capacity. The woman crane driver should, therefore, with some experience, be able to do as much work as the normal man, and accordingly should have his full time rates of pay. In a number of cases reported to it the Department maintained this view. Thus it was explained in July to the proprietors of a Middlesbrough Ironworks  

that women should start at slightly above the minimum rate of 6d. per hour and after a short period of probation should have a man's time rates, less any extra cost of supervision. This, it was stated, had been the recent practice in various establish-

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1 L.R. 19160/2.  
2 The occupation was noted later in the year as one suited to disabled soldiers.  
3 C.E. 1421/4B.
ments employing crane drivers. To this recommendation the firm replied at great length, asserting that the general average of female capacity was in their experience between .65 and .70 of man's; that women substitutes had not the family obligations of men, and that the present demand of various labour bodies was clearly only advanced in order to block the system of dilution. Correspondence on the subject (which had been begun by the Union concerned in June) was prolonged until the case was referred to the Special Arbitration Tribunal, and an award issued on 14 November to the effect that women crane drivers employed by the firm under existing conditions should be paid at the men's rate of 8s. per shift after three months' probation.

A similar award was issued in the same month in a case brought against Messrs. R. Stephenson & Co., when it was settled that women employed by the firm on six-ton cranes should have 37s., and on ten-ton cranes 39s. a week, and in the case brought against Messrs. Harland and Wolff, at Belfast, when a woman crane driver employed on a 15-ton crane appeared before the Tribunal, and convinced its members that she was fully doing a man's work, and was entitled to his rates of payment, £2 4s. a week with extras.

Previously, on 9 August, the Tribunal had found, in a case brought against Messrs. Beardmore, that "women crane drivers after two weeks' experience, undertake the whole of the work previously done by men, and perform it as efficiently as the men. They are, therefore, to be paid, after two weeks (during which they should be paid at 6¾d. an hour), the wages and allowances paid from time to time to men employed on the same work in the machine shops at Parkhead Forge, less any general advance payable to the women by order of the Minister of Munitions, so that the total payment to the women shall be the same as that to the men."\(^1\)

The cause of the women crane drivers was espoused by no less a union than the Iron and Steel Trades Federation, as well as by the National Federation of Women Workers, and an award such as the above offered a useful precedent from the point of view of organised Labour. As an illustration of the Department's attitude towards the whole problem of time rates, these negotiations are worth noting, since the case of this group of workers served to point the moral of the necessity under normal conditions of equal output in return for equal payment.\(^2\) The case was, however, exceptional,

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\(^1\) This rate was 10¾d. an hour. "All our crane driver members should see that they are getting the men's rate," said the organ of the National Federation of Women Workers in commenting on this award. "If not they should let the Federation know at once. This should cheer our Woolwich members on whose behalf the Federation is at present negotiating."—*Woman Worker*, September, 1917; December, 1917.

\(^2\) When women crane drivers did not undertake entire charge of cranes, but received help from men in oiling, greasing, etc., they were not necessarily entitled to a man's full rate of pay. Thus at a local conference held at Manchester on 21 January, 1918, after a hearing before the Special Tribunal between representatives of the Manchester Engineering Employers' Association, the Workers' Union, and the National Union of General Workers, it was agreed that the minimum rate for women crane drivers should be 34s. per week, plus the recent advance of 3s. 6d. to female workers.—*Workers' Union Record*, March, 1918.
as the work of women in crane-driving admitted of the clearest possible comparison with that of men in point of quality and efficiency.

Local Settlement of Intermediate Rates.

The Department, as has been said, maintained throughout 1917 its refusal to commit itself to any fixed time rate for the intermediate workers. On the whole, employers and workpeople settled special rates locally without much administrative direction from Whitehall Gardens. A certain number of proposed changes were duly referred for sanction under Section 4 (2) of Part II. of the Munitions Act. Thus in January, a rate of 26s. for a 53-hour week (3s. 6d. above the minimum then prescribed) was proposed and sanctioned for women viewers and examiners, and for drillers and rectifiers as being engaged respectively on responsible and on comparatively skilled work. In April, at the Rochdale National Shell Factory, 25s. was sanctioned for a 48-hour week for women employed on the "specially laborious" work of trollying. In July, a Sheffield firm of steel manufacturers received permission to increase from 26s. 6d. to 29s. (i.e., 2s. 6d. above the new minimum for 53 hours' work) the wages of female labourers unloading bricks, an occupation fully deserving the classification of "specially laborious." There were not, however, very many applications to the Ministry for such "sanctions," since these rates were frequently arranged as individual advances which under the Act it was not necessary to report. After the general advances of April, 1917, to women on men's (time) work, a normal time wage for viewers and gaugers (on "responsible" work) and for women on semi-skilled machine processes, was 7½d. an hour—33s. 9d. for a 54-hour week, or 30s. for the 48-hour week under the three shift system.¹ These rates were adopted by the Minister as a basis in the National Shell and Projectile Factories, and served as a precedent to controlled establishments.

More valuable precedents were supplied by the Special Arbitration Tribunal, which was constantly occupied in the course of the year in defining rates for workers claiming special rates owing to their "ability" or "responsibility," and in deciding in a number of difficult cases whether work was or was not fully skilled. By December, 1917, it had confirmed the establishment of time wages of 7½d. to 8½d. an hour as a more or less recognised rate for "intermediate" workers. It was suggested that such rates might be inserted in a new wages Order either as a minimum or as a standard for local agreement. The consolidated order of the following May, however, left the position of the intermediate workers on "men's work" unchanged.

IV. The Claim to Men's Advances.

In 1917 a new and difficult problem arose, partly of interpretation, partly of policy. As a result of an agreement in February between the Engineering Employers' Federation and the Unions with which it

¹ C.E. 365/4B.; C.E. 3555/4; C.E. 1414/4B.
negotiated, the Committee on Production heard the claims of the engineering and allied trades together at four-monthly intervals and awarded national advances of 5s., 3s., and 5s. a week, in the course of the year. Were the women in receipt of men’s “rates” entitled to identical advances? Both the men’s and the women’s unions took the view that the women engaged on men’s work at men’s rates should logically receive any increase of pay secured by the men. The question had not arisen in the negotiations and discussions at which the principles on which women on men’s work should be paid had been settled; it was raised by a request from the Special Arbitration Tribunal for the Minister’s interpretation of Clause 1b. of Order 49.\(^1\)

The Department’s view was that the Order did not require the payment of men’s advances to women. The rate which the Government undertook to maintain was the standard rate which men were receiving when women were introduced. The object of the undertaking was to ensure that the men’s permanent economic position should not suffer as a result of the temporary invasion of their work by dilutees. The advances awarded by the Committee on Production were temporary adjustments designed to meet the rise in the cost of living, without bringing into question the normal standard rate; they were, in the words of the award, “to be regarded as war advances, intended to assist in meeting the increased cost of living, and to be recognised as due to and dependent on the existence of the abnormal conditions now prevailing in consequence of the War.” Specifically, they did not affect the standard rate, they “are to be taken into account in the calculation of payment for overtime or night duty, or for work on Sundays and holidays, but they are not otherwise to apply to or affect present time-rates, premium bonus rates, or piecework prices, and are not to be taken into account as part of the time rates for the purpose of fixing new piecework prices or premium bonus rates.” That they were not intended to affect the standard rate is shown also by the fact that they took the form of uniform advances for all classes and grades of workers, the only differentiation being by age between youths or boys and men, and that they were payable to pieceworkers in the form of a lump sum irrespective of their piecework earnings. In amount they were calculated to compensate the unskilled labourer for the increase in the cost of living; the higher paid worker received an identical, not a proportionate advance. In their interpretation, the Department was upheld by the Law Officers of the Crown, to whom the question was referred at the end of the year.

The question of policy was distinct from that of interpretation, since the Department could by a new Wages Order have superseded or supplemented Order 49, on the basis of which the advance was claimed, and granted the men’s advances. From the point of view of production it was held to be inexpedient to render the employment of women on “skilled work” even more expensive than it was already as a result of the prescription of full standard rates for what was often practically, if not technically, semi-skilled work. This was

\(^1\) Cf. Appendix VI., pp. 189-191.
urged vigorously by the Employers' Advisory Committee when consulted on the subject by the Department in August\(^1\) and was repeated to the Minister in November by the Chairman of L. Committee who stated that its members were "unanimously against such payment."\(^2\)

Even more important was the reaction on other women's wages that might be expected from the grant of advances on the men's scale to the small minority of women doing skilled men's work and already enjoying exceptionally favourable terms of remuneration. If an advance not contemplated by the women's wages Orders were obtained by one section of the women, attempts to secure similar concessions would be made by other sections, and it would become impossible to maintain the system of wage relations established after such prolonged negotiations and embodied in the Orders. The policy of the Wages Section had been to guard against reactions of this kind by treating women's wages as a self-contained problem, and it would be impossible to continue to regulate women's wages, if these were to be controlled by every fluctuation in men's wages.\(^3\)

The claim was not pressed with any great force either by men or by women trade unionists, until in October a formal complaint was received from the A.S.E. of a breach of faith on the part of the Department. The object of the stipulations for the payment of women on skilled men's work was "that there should be no economic advantage to employers in employing female labour in the place of fully skilled men." "The situation was now anomalous and one of the essential safeguards of dilution was removed if these women did not share in the men's national advances. It was no argument to say that periodic advances were not part of the district rate. Equality of remuneration was the point and this could clearly only be secured by making all advances granted to skilled men apply to women engaged on the work of skilled men under dilution."

On 19 March, 1918 (after intermediate correspondence), a detailed reply was sent by the Department to the General Secretary of the A.S.E. This sums up so fully the position of the Ministry with regard to a difficult aspect of the always difficult enforcement of "equal pay for equal work," that it is given almost verbatim.

...."The Department does not agree that the view set out in your letter of 9 October correctly represents the intention of Circular L.2. The object of these words ("women on skilled work shall receive the rate of the tradesmen whose work they undertake") was to protect the fully skilled tradesmen by securing that during the War the standard rate for his work should be maintained. The standard rate is the time rate, and that is the rate that is being maintained during the War. The Department required that the women should be paid the time rate of the fully skilled tradesmen immediately prior to April, 1917. The advances which have been given to tradesmen since that date have been war advances, due to and dependent on the exceptional conditions resulting from the War. The awards prescribing them have specifically stated that they are not to apply to or affect time rates while they are

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\(^1\) L.R. 5581.  
\(^2\) L.R. 4917.  
\(^3\) L.R. 142/5.
to be taken into account in the calculation of overtime. There has been no intention of defeating the purpose of the Orders. On the contrary, the undertaking first contained in L.2 has been rigidly carried out."

In cases where firms spontaneously gave to their women employees the same advances as men, the Ministry did not refuse its sanction. The majority, however, of women on "skilled work" shared in the general advances of 2s. 6d. and 3s. 6d. a week given by statutory Orders to women munition workers in August and December, 1917, and not in the higher advances awarded to men by the Committee on Production.1

The Department maintained an attitude consistent with this in its administration of the 12\(\frac{1}{2}\)% bonus given to men in the engineering trades in October and November, 1917, and L. Committee gave its full sanction to the refusal to extend this elastic bonus to women workers.2 The question was formally considered on 9 May, 1918, by the Special Arbitration Tribunal, which had received various applications for the 12\(\frac{1}{2}\)% bonus—notably from the women crane drivers who have been already described.3 The Tribunal decided that the women's claim for the special bonus was not justified. This decision, if unsatisfactory on the basis of equal payment for equal work, was explained by an examination of the genesis of the 12\(\frac{1}{2}\)% advance—an advance given to the male time worker by way of compensation for his lesser opportunities of earning compared with those of other men who were able to work on systems of payment by results. Such a consolation gift was not, it was held, required by a woman who had only entered the trade under special conditions in the process of labour dilution.

The claim of women to the same advances as the men engaged on the same work was pressed in the summer of 1918 in a number of industries outside the field of munitions. The claim was made not only to the same advances in respect of cost of living, but also to the bonuses awarded by the Committee on Production to men excluded from the original grants of 12\(\frac{1}{2}\)% and 7\(\frac{1}{2}\)% After the claims had led to a strike of women 'bus conductors in London, the whole question of the relations that should be maintained between the wages of men and women was referred by the Government on 29 August to a committee of enquiry presided over by Mr. Justice Atkin.

V. Women on "Men's Work" in 1918. Summary.

At the beginning of 1918, two years after the issue of L.2, the woman munition maker embarking on "men's work" had the following financial prospects before her:

(a) If she took a skilled artisan's work in full, a comparatively rare occurrence even in 1917, she received his standard wages in full, either on time or on any of the varieties of payment by results.

1 The Special Tribunal, however, awarded the men's scale of advances to women crane drivers on several occasions in 1918.
2 L.R. 5581.
3 L.R. 142/100.
(b) If she took part of his work, *i.e.*, if she assisted in making the same product, even though the work was re-arranged and sub-divided so that she might specialise on a particular process, she still received the skilled worker’s time and piece rates, subject to a possible deduction for a period of probation and for the cost of supervision if she needed direction or help in setting up her machine. Even if she worked more slowly than her predecessor, she was still entitled to his full time rates.

(c) If she were engaged, as the great majority of women munition workers were engaged, on machine operations involving pure repetition work or on “labouring” work in a factory or shipyard, she was entitled to a time rate of 30s. (including the war advances of 6s.) for a 48-hour or 33s. for a 54-hour week, or to the piece rates previously earned by a man, plus the 6s. bonus weekly. The latter was the more frequent and far the more remunerative alternative for her.

(d) If her work required greater skill, exertion or responsibility than that of the ordinary factory hand, without reaching that of the skilled tradesmen, her piece work rates, if she were paid by results, remained the same as those previously fixed for men, but on time work she might claim special rates of pay which would make her weekly wage some 6s. above that of her “unskilled” companions.

The woman munition maker on “men’s work” was, therefore, guaranteed the opportunity of reaching a man’s full earnings except in so far as she was engaged on:

(a) Skilled work in which she could not work independently; or
(b) Unskilled and semi-skilled work on time, in which case she might be awarded the time wages previously paid to a man, but could not claim them as a right and normally did not receive them. Further—and this was a most important exception—she did not participate in the war advances obtained by men in the organised trades but received separate, and smaller, advances under independent Orders. She also received, when employed on piece work in unskilled operations, lower overtime allowances, on account of her lower time rating, than a man would receive under similar conditions.

The consolidated Order of May, 1918, made the payment of the woman on men’s work more easy to understand than it had become under the elaboration of the previous Orders. It did not, however, affect her financially, except that it prescribed a minimum rate of 6d. an hour instead of a standard weekly wage of 24s. for a week of 48 hours or less.

This was the position reached in the original munition trades after two years’ statutory regulation of wages under the Munitions Act. The non-munition trades had in the same period met very similar
problems to those surrounding the munition workers' wages as women were successively introduced in substitution for men; and agreements had been duly drawn up "for the period of the War" between their employers' and workpeople's associations. Such agreements commonly stipulated that women should receive men's piece rates if employed, under similar conditions, on systems of payment by results. The much more difficult question of the time rates appropriate to the woman worker was often left unsettled. Each trade had to face its own difficulties of substitution sectionally, and could thus endeavour to insist on the safeguarding of its own established conditions. The problems, however, of payment under schemes of labour dilution in other occupations never approached the scope or the complexity which attended it in the "munitions trades," or rather in the munitions firms within those trades. The Ministry was able with effect to offer in 1917 to other Departments concerned in organising female labour its interpretation—not perhaps wholly consistent, but based on much concentrated experience—of the principle of "equal pay for equal work."
CHAPTER V.

WAGES OF WOMEN AND GIRLS ON "WOMEN'S WORK."

I. The Policy of Regulation.

Difficulties in Controlling Wages for "Women's Work."

It was only after a year's experience in organising the supply of munitions and of munitions labour, that the Ministry undertook the statutory regulation of wages for "women's work" (in the technical sense now attached to these words). The Order which fixed rates for women employed on "men's work" had already been in operation for some months, when the Department in July, 1916, took the further step of laying down standard rates for the payment of women in the heterogeneous mass of unskilled or semi-skilled occupations traditionally performed by women in the munition trades.

For purposes of administration it would clearly have been simpler to confine any regulation of wages to the women substitutes for whose introduction the Ministry was to a great extent responsible, and to let demand for labour drive up women's wages in certain underpaid industries. Meanwhile the operation of the Fair Wages Clause (which in principle secured to the employees of Government contractors either the district rate or that "commonly paid by good employers"), together with recourse to arbitration, might have been expected to secure a fair living wage in other occupations. Although the interpretation of the principle of "equal payment" for women substitutes undertaking "men's work" had produced a stream of administrative problems, yet the initial difficulties by which the Ministry was met were greater in connection with the wages of women munition workers doing work that had been done by women before the War. The reasons for this are obvious.

(i) The numbers involved in the first year of the Ministry's existence were very much larger in the case of women doing "women's work" than they were in the case of those taking the place of men, in spite of the fact that the manufacture of shell, which at this time absorbed a large proportion of the women recruited for munitions, was held to be men's work. The disturbance to industry resulting from regulation was proportionately greater. Employers who in a few months had trebled or quadrupled the number of women employed by them, were too much occupied with the technical problems of organising production to wish, even if they were recouped by the prices obtained for munition work, to change under a general statutory enactment the whole system of wage rates which they had used successfully before the War.¹

¹ In the works of two firms in whose cases the Special Arbitration Tribunal issued awards on 9 April and 9 June, 1916, the number of women employees rose from 1,110 to 3,150 and from 210 to 2,040 between March and July of that year.
(ii) Circular L.2 dealt mainly with the women introduced, as part of the policy of dilution, into the engineering trades as a temporary expedient, and producing goods under abnormal conditions for the Government, which must accept high prices if these resulted from a minimum wage imposed by itself. Regulation of other trades and of work that was traditionally women's would in all probability involve changes that might be permanent after the War, and must affect quantities of women not engaged upon munitions, but working to supply the varying everyday needs of the home and foreign markets. Could the country, it was asked, afford to risk disturbing what remained of its foreign trade, after over a year of war, by suddenly raising the labour cost of goods produced for export?

(iii) Further, the number of trades concerned in "women's work" on munitions was so great that any attempt to regulate them must involve the Ministry in all the difficulties due to variation in local custom, variation in rates and methods of remuneration, variation in the degree of skill required and training usually given, and in the difficulties due to the indifference of the woman worker, reconciled before the War, except in a few branches of the metal trades, to life at a wage level of 8s. to 15s. a week. When defining the payment of women taking men's work in whole or in part, the Ministry could to a considerable extent use men's recognised standards; and the men's trade unions, notably the Amalgamated Society of Engineers, with occasional lapses, backed up the principle of a standard wage for women substitutes, based as far as possible on the skilled workman's district rate. With the women who were employed on "unskilled" work in electrical, chemical, rubber, soap, ammunition factories, or who packed and sorted goods in the warehouse departments of manufacturing firms, or performed any of the varied forms of press and lathe work common to the lower stages of most of the metal trades—work unchanged by the outbreak of war except perhaps in its intensity and its designation of "munitions"—low standards of wages were inherited; and it was not, as in the newer forms of work, obviously to the interest of any strong trade union to support claims for higher rates. The National Federation of Women Workers, the union on which fell most of the brunt of the battle for increased rates at its early stages (in so far as it was carried on by organised labour at all), was not 20,000 strong in 1914.

Two other considerations obscured the position and impeded the fixing of a statutory wage for women's work.

(1) Previous experience of wage regulation for women in Great Britain had been drawn, as has been said, from the Trade Boards, which before the War secured to between 200,000 and 300,000 women workers minimum rates of from 2½d. to 3½d. an hour. The Ministry did not, and indeed could not adopt the procedure of the Trade Boards, either in their methods of establishing rates, or of intimating
prospective changes in wages. Their "determinations," however, possibly suggested an unduly low standard when munition workers' wages were discussed, though both the type of worker and the rate of output required for munitions were different from those in many of the Trade Board occupations.

(2) The great and continuous rise of prices since the beginning of the War made necessary, as the history of men's war wages shows, a continual readjustment of standard rates of payment. By the autumn of 1915, and still more by the spring of 1916, a considerable number of war bonuses of from 1s. to 2s. a week had been given to women factory workers. These corresponded to the bonuses of 2s. and 3s. a week obtained at this time in the same trades by male labourers, to whose imperfectly organised position, rather than to that of the skilled workers with their strong trade unions, women workers' industrial status was at all comparable. These increases, and the increase in earnings obtainable by overtime work, made both employers and workwomen slow to recognise the need for an increased standing wage on the score of cost of living alone.

Reasons for Departmental Regulation.

Despite all these difficulties, and despite the governing condition that it existed to produce munitions, not to embark on a crusade for improving the industrial position of women, the Department was drawn into a system of regulating wages in "women's work" which in June, 1918, probably covered at least 300,000 women and girls and—with the "men's work" orders—extended to some eighty of the subdivisions, known to the Employment Exchanges, in the metal, chemical, and "miscellaneous" trades. The Minister's system of regulation by Statutory Orders applied to employers of women munition workers in these trades was, when it came into force, a natural complement to its policy about "men's work." But it was also due to the need to recruit women for munition work away from their homes, and to the sense that the Government should be a model employer directly and indirectly, or should at least secure a reasonable wage to workers from whom the leaving certificate regulations removed, in the public interest, the power to move freely from ill-paid occupations. The wages actually paid to women munition workers in the first two years of the War were very variable, sometimes high by pre-war standards, but often too low for the workers' efficiency or for industrial peace. The existing official machinery referred to above could not and was never intended to meet all the needs of all munition industries at the pace needed in

1 Trade Boards had been formed in nine trades between the passing of the Trade Boards Act in 1909 and the establishment of the Ministry of Munitions. In order to bring a fresh trade under the operation of the Act, a Provisional Order confirmed by Act of Parliament had to be obtained in each case by the Board of Trade (by the Ministry of Labour since its formation). The Boards prescribed flat minimum rates for all workers throughout an industry scheduled. At least nine months must normally elapse, between the proposal of new rates and their general enactment, in order that objections from either side might be heard, and existing contracts might not be disturbed.

2 These were chiefly controlled establishments.
war. Men munition workers at this time, if they were discontented with their wages, either obtained directions from Whitehall for their increase under the Fair Wages Clause, if this was applicable, or negotiated a rise with their employers, or, with increasing frequency, secured a general advance by an award of the Committee on Production for the whole of a "district." But women workers were far too sparsely organised for orderly negotiations of this sort, and awards, if applied to them, could only deal with the employees of individual firms *seriatim*. The Department in its wage regulation for women on their own traditional work supplied a rapid substitute for the collective bargaining to which only a small proportion of women munition workers had been trained when this policy was adopted.

Critics of the Department complained that such regulation when introduced was merely a belated fulfilment of Mr. Lloyd George's often quoted pledge on 17 July, 1915, to the effect that there "should be no sweatened labour" among women coming forward to do munition work. This interpretation is probably an instance of the evils of quotation apart from the context, for the Minister of Munitions was apparently speaking of women taking men's work, not of women employed on work done by them or by other women before the War, and no formal agreement such as that concluded in October and December, 1915, between the Ministry and the A.S.E. in regard to the enforcement of Circular L.2, safeguarded the position of the ill-organised women on "women's work." Doubtless from the point of view of the women themselves, especially if they were new recruits to munition making, the historic distinction between "men's work" and "women's work" was not very important, while the difference in remuneration came home to them closely. It was, however, more than once urged from within the Department that, while it was bound to secure standard wages for women substitutes, any regulation of wages for women on "women's work" should be accepted by them as an act of grace, not as the fulfilment of a pledge.


**Memoranda of the Central Munition Labour Supply Committee.**

The Ministry did not definitely regulate wages for women on women's work till a year after its establishment. The first formal recommendation, however, from within the Department for the regulation of the wages of women munition workers *not* on men's work were drawn up by the Central Munitions Labour Supply Committee as early as November, 1915, just after the issue of its scale of payment for women on "men's work." One of its Memoranda, No. 44, dealt with the wages of women in the new Filling Factories, while Memorandum 43 attempted to provide for women described, in the cumbrous phrase stereotyped by future Orders, as engaged "on munition work of a class which prior to the War was recognised as women's work in districts where such work was customarily carried on," excluding those

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1 See Chapter I., p. 1.  
2 M.W. 92329/18.
engaged on shell filling, cartridge making, and fuse assembling. The main recommendations resembled those which were made obligatory in subsequent orders. According to both Memoranda the normal woman piece worker was to be rated at 4d. an hour, with higher time rates for the worker on dangerous processes—5½d. and 6d. an hour for fuse filling; 6½d. and 7d. an hour for melting and running high explosives into shell. Piece prices were to be "such as to enable a woman of average ability to earn at least 33½%" (a fraction much discussed later) over the time worker. A flat rate time of 4d. an hour was, however, recommended in Memorandum 43, "to be paid whether the woman concerned was on time or piece work or premium bonus," i.e., the distinction of ½d. an hour between time rates for time and piece workers (4½d. as against 4d.), which appeared in all subsequent Orders until May, 1918, and in almost all Special Tribunal awards, was not yet made.

These Memoranda were sent up for the Minister's approval on 17 November, with a covering letter from Mr. Arthur Henderson, as Chairman of the Central Munitions Labour Supply Committee, explaining the reasons why the Ministry of Munitions should embark on this extension of control.

"At first sight the subject of these recommendations may appear to be less directly connected with the Committee's work than the problems which have hitherto been dealt with by them. It was, however, found as a result of experience, that a statement dealing with this aspect of the wages of women was necessary, if women were to be employed in large numbers in Government factories and in Controlled Establishments on work which was not provided for in the Circular already issued (L.2). . . . The question of wages for women in Filling Factories other than those in the London area, or those existing before the War, was taken up by the sub-committee at the special request of Dr. Addison. The recommendations submitted have been the subject of consideration at a conference called by Dr. Addison and attended by Mr. West, Colonel Strange, members of the Health of Munition Workers Committee, and members of this Committee. I hope you will give your consent to the issue of these recommendations by the Ministry in the same form as the recommendations contained in Circulars L.2 and L.3, as I am convinced that pronouncements of this character will prove to be necessary if we are to succeed in effecting the employment of women on a large scale."  

Memoranda 43 and 44 were circulated for criticism to a number of the Departments concerned with munition workers' labour, and some attempt was made during December to secure statistics as to the wages actually paid at the time in Filling Factories and certain other munition factories (in the narrow sense of the word). These statistics were difficult to interpret and were drawn from a limited number of "samples," but indicated a marked discrepancy, common in most cases of unorganised labour, between rates paid by different firms in similar occupations. Thus, among the Filling Factories, an armament

1 M.W. 62172/3.
firm reported that an average wage of £1 was paid for a 62-hour week in one of its numerous establishments; the Perivale National Filling Factory paid its workers, after four weeks’ probation, 18s. at 18, 20s. at 19, 22s. at 20 and over; the Hayes Emergency Factory paid 20s. after training for a 49-hour week; while a firm at Erith paid 10s. 5d. to 15s. 8d. a week for filling bombs, with a normal week of 50 hours, and a Fulham factory paid 8s. to 10s. per week, with hours from 7.30 to 6.30.

In the miscellaneous munition works, rates were equally variable. Some specimens are tabulated below:

<table>
<thead>
<tr>
<th>Firm. District</th>
<th>Work done</th>
<th>Wages</th>
<th>Length of Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Newcastle</td>
<td>Fuses, cartridge cases, etc.</td>
<td>Average earnings, 37s. a week (premium bonus).</td>
<td>53 hours with overtime.</td>
</tr>
<tr>
<td>B. Manchester</td>
<td>Screwing fuse needles, machine operations.</td>
<td>14 yrs., 8s.; 18 yrs., 15s.; 21 yrs., 18s.; maximum, 24s. a week.</td>
<td>48 hrs.</td>
</tr>
<tr>
<td>C. Dursley</td>
<td>Machining and viewing primers.</td>
<td>Average, £1 weekly.</td>
<td>51 hrs.</td>
</tr>
<tr>
<td>D. Bow</td>
<td>Making bomb fuses.</td>
<td>Beginners: time rate, 14s.; piece rates, average, 19s. to 22s. 2d. a week.</td>
<td>55 hrs.</td>
</tr>
<tr>
<td>E. Lincoln</td>
<td>Engraving, core-making, mine assembling.</td>
<td>19 yrs., 11s. a week.</td>
<td>11½ hrs. net per day.</td>
</tr>
<tr>
<td>F. Croydon</td>
<td>Examining fuses</td>
<td>Recently 3d. per hr., now only 2d.</td>
<td>10½ hrs. net per day.</td>
</tr>
<tr>
<td>G. Hayes</td>
<td>Gauging, etc.</td>
<td>3d., 3½d., and 4d. per hr.</td>
<td>52⅔ hrs. week.</td>
</tr>
<tr>
<td>H. Liverpool</td>
<td>———</td>
<td>2d. per hr., rising to 4d., at 23.</td>
<td>———</td>
</tr>
<tr>
<td>J. Coventry</td>
<td>———</td>
<td>2½d. and 3d. per hr.</td>
<td>58½ hrs. when doing overtime.</td>
</tr>
<tr>
<td>K. Stirling</td>
<td>Gauging and assembling fuses.</td>
<td>2½d. per hr., and a service bonus of 1s. to 4s. a week.</td>
<td>———</td>
</tr>
</tbody>
</table>

Out of fifty-three firms reporting, only fourteen already paid at the rates suggested in Memorandum 43. These were widely scattered, four in Yorkshire, three in London, three in Scotland, two in Lancashire, one in the Midlands and one on the Tyne.¹

In commenting on these statistics in a departmental minute in connection with Memorandum 43, Mr. Beveridge pointed out that the proposed rates were very much above those actually paid in many districts, and sanctioned for example in the recent agreement between the Midland Employers’ Federation and the Workers’ Union, under which a girl of 18 was to receive 13s. a week, as against 16s. 4d. to 18s.

¹ M.W. 62172/2/7. (The Co-operative Wholesale Society, consulted at the same time as to its minimum wage rates for women and girls, returned them as 5s. at 14, 13s. at 18, 17s. 6d. at 20, with a war bonus varying from 1s. to 3s. 6d.; but it pointed out that these were rates for distributive, not productive workers.)
under the draft recommendations. He added:—"I do not think there is any case for making the proposed recommendations. There is no merit in having uniformity for all women's wages on munition work throughout the country. The only ground for which the recommendations could be really advanced is that they are necessary to prevent sweating. With regard to this (1) in the present state of the labour market sweating is extremely unlikely; (2) the wage proposed of 4d. an hour is clearly unnecessarily high to prevent sweating; (3) individual cases of sweating can be dealt with by arbitration under Part I of the Munitions of War Act, and should be so dealt with.

"The undertaking by the Ministry to fix women's wages generally will only lead to the diversion to other purposes of energy which is required for work more directly connected with the output of munitions."  

Further consideration of the two Memoranda was suspended during the negotiations for the Munitions of War (Amendment) Act, although the rates recommended in Memorandum 44 were adopted as the basis in the National Filling Factories as they successively engaged their staffs and settled their conditions of work. In the course, however, of its administration of Section 4 (2) of the Munitions of War Act, which entailed departmental sanction for changes of wages in controlled establishments, the Wages Section of the Ministry was often brought into contact with cases of low wages for women engaged in munitions work under pre-war conditions. Thus it was called on to sanction in November, 1915, an advance of time wages from 10s. to 14s. per week for women employed by a large firm on magnetos for the War Office and Admiralty; an advance to 2 3/4d. per hour (and to 10 3/4d. per hour for toolmen) in the case of another firm at about the same time, and in the early summer of the following year increases of wages in some of the 'marginal' munition trades, such as soap and porcelain, giving a weekly time rate of from 13s. to 16s. to adult workers. The readiness of women to work long—often over-long—hours at this period was, in part at least, connected with the rates of wages prevalent. The opportunity of earning higher wages was one of the grounds on which women agreed to change from an eight-hour to a twelve-hour daily shift in several instances reported to the Department in the first six months of 1916. The Department's 'welfare' policy of improvement in hours and conditions of work in munition factories developed at the beginning of this year, and indirectly supplied an additional reason for control of women munition workers' wages.  

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1 See appendix V.  
2 M.W. 62172/3.  
3 C.E. 253/4.  
4 In June, the Luton Labour Advisory Committee complained to the National Advisory Committee that girls in the fuse department of a local firm were paid only from 10s. to 17s. a week, and they had lately struck work owing to their low rating and also to their irregular earnings. The Department could, however, only reply that no regulation at present applied to their case.  
5 The Sunday Labour Committee was appointed in December, 1915, and the Welfare Section was formed in January, 1916.
POWERS UNDER THE MUNITIONS OF WAR AMENDMENT ACT.

The position of the low-paid women munition workers was brought forward in Parliament and elsewhere during the consideration of the Munitions of War Amendment Bill, and in January, 1916, Mr. Lloyd George, in answer to a question in the House of Commons by Mr. Cowan, as to whether he was satisfied that women munition workers were being paid, generally speaking, a living wage, replied:—"No, I am not sure that I am. That is why further powers are being taken in the Government Amendment Bill."

Section 6 of the Amendment Act of 27 January, 1916, gave power to the Ministry of Munitions to regulate women's wages in munition works which came under the leaving certificate regulations of Section 7 of the principal Act, while Section 8 authorised the Minister to constitute a Special Arbitration Tribunal (a) to arbitrate in differences concerned with women's wages or conditions of work; (b) to advise the Department as to directions to be issued on such matters.

EFFECT ON OTHER WOMEN WORKERS OF THE ISSUE OF L.2 AS STATUTORY ORDER 181, OF 1916.

Under the powers given by the first of these Sections Circulars L.2 and L.3 were issued by the Ministry, and became obligatory from 28 February. The influence of Circular L.2 regulating the wages of women on "men's work" was at once felt, as the Coventry employers in their interview with the Central Munitions Labour Supply Committee in December, 1915, had pointed out would be the case, in producing demands for wages among women in other industries or departments of firms. Women fuse makers especially in many districts urged that it was unreasonable that they should earn less than women making shell in the same factory because the work of the latter was by tradition "men's," while their own had been "customarily performed by women" before the War. Thus on 17 March the Labour Officer for the North East Area reported that "in this district the British Westinghouse Company (Manchester) have departments on shells, fuses and one on electrical work for war purposes. In shells I understand they are paying the girls on L.2, but in the electrical department, where work was partly done by women before, girls are being paid as formerly. This causes considerable unrest, the girls contending that while the rates in normal times may have been fair enough, they are quite inadequate at present. A good deal of unrest has been caused by the girls throughout the district having been informed that on the passing of the Munitions of War Amendment Act, £1 per week minimum would be paid to all girls of 18 and over engaged on munitions. The representative of the Women Workers' Federation tells me that she is sure, if the £1 per week minimum were applied to all female

1 Parliamentary Debates (1916), H. of C., LXXVIII. 872.
2 M.W. 92329/6.
munition workers, she could almost guarantee their product would be doubled or trebled."¹

After the issue of L.2 as a compulsory Order, the issue of some other statutory Order for munition workers not taking men's work became almost inevitable.

Meanwhile the Ministry could only decline to interfere directly in cases of low wages. Thus, when on 23 March, 1916, the Workers' Union wrote to complain of a firm at Camborne (Cornwall) said to be paying girls working on fuses at from 5s. to 9s. (plus 1s. 3d. bonus) a week, "contrary to L.2," the reply from the Ministry of Munitions was that as fuse work was women's work before the War, L.2 did not apply, but that any "difference" as to wages could be brought up for arbitration under Part I of the Munitions of War Act.² This was the procedure by which those reluctant to face a general statutory minimum wage hoped to avoid injustice to the ill-organised woman worker. A circular was, in response to many inquiries, drafted in March, 1916, for issue to Divisional Officers, and through them to Labour Exchange Officers, to the effect that where there was dissatisfaction as to wages among women on women's work, the women should first lodge a complaint with their employers, and then "be referred to" the Board of Trade, which would deal with the difference in accordance with the provisions of Section 8 of the Munitions of War (Amendment) Act. In other words, the dispute would, in the case of controlled and uncontrolled firms to which the leaving certificate regulations applied, be sent by the Chief Industrial Commissioner to the Special Arbitration Tribunal for settlement.

III. The Special Arbitration Tribunal and "Women's Work."

The first stages in the regulation of wages for "women's work" were secured, not by enactment but through the agency of the Special Arbitration Tribunal which was formally constituted by the Minister of Munitions in March, 1916.³ After negotiations with the Central Munitions Labour Supply Committee it took over the latter's advisory functions with regard to wages, and at once embarked on the two lines of work laid down in its terms of reference.

¹ Two months earlier the Chairwoman of the "Manchester, Salford and District Women's War Interests Committee" stated: "The average weekly wage paid in this district during this month to an adult woman working on munitions at a flat rate is under 14s. To this may be added 1s. to 1s. 6d. war bonus and a possible 3s. for overtime. We can only find five firms in this city who are paying the £1 per week flat rate minimum in L.2."—Manchester Guardian, 21 January, 1916.

² M.W. 99333.

³ See Appendix VI. The Tribunal contained the Chairman of the Clyde Dilution Commissioners, then engaged in securing the introduction of female labour into engineering works on the Clyde, the Chairman of the Trade Boards, an ex-factory inspector, the secretary of the Engineering Employers' Federation, a member of the A.S.E. Executive Council, and the assistant secretary of the Women's Trade Union League, with a member of the Wages Section as secretary; both the women members were members of Trade Boards. The Tribunal therefore possessed a great amount of concentrated experience of the conditions affecting women's industrial position.
(1) Advice.

On 10 March Dr. Addison had written to the Chairman of the Central Munitions Labour Supply Committee as follows:—

"Mr. Lloyd George proposes at an early date to refer to the appropriate tribunal the question of issuing any directions as to wages of women on munitions, not covered by L.2; the ground of memoranda 43 and 44" (as to the fate of which the Central Munitions Labour Supply Committee had inquired) "will be covered by such a reference." On 24 March the Tribunal was formally asked to advise the Minister:—

(1) As to the payment of girls under eighteen on men's work, and
(2) "Whether any directions should be given by the Minister under Section 6 of the Act fixing a minimum time rate for women or girls engaged on munitions work of a class which prior to the War was recognised as women's work in districts where such work was customarily carried on either generally or for particular trades or districts, or in the alternative, whether any question relating to the remuneration of women so engaged should be dealt with as and when it arises."

(2) Awards.

While considering these questions, the Tribunal in its other capacity was met by demands for arbitration on a number of "differences." A number of outstanding applications for hearings were referred to it "en bloc" by the Board of Trade, as soon as the appointment of the Tribunal was announced.

The first case on which it published an award was that brought by the National Federation of Women Workers against Armstrong's gauge, fuse and lyddite works at Newcastle. Here a specially organised local branch of the National Federation of Women Workers—strong for a women's Trade Union, since it contained 5,000 to 6,000 members—asked for a time and premium bonus minimum rate of 5\(\frac{1}{2}\)d. an hour. The Tribunal on 29 March, 1916, awarded 4\(\frac{1}{2}\)d. an hour to both time and piece workers (this was different from its later practice), with an extra \(\frac{1}{2}\)d. an hour for the workers in danger zones and special rates for young workers. The Trade Union concerned congratulated its members on these results as a triumph of organisation, although its demands had not been wholly met.\(^1\)

The next award, in settlement of a dispute between the National Federation of Women Workers and Eley Bros., Edmonton, laid down the terms which were subsequently crystallized in Orders 447 and 618, and formed a precedent for many other awards until these Orders were issued. Its terms were:—

<table>
<thead>
<tr>
<th>Workers aged 18 and over</th>
<th>Time rates guaranteed to piece workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>4d. an hour</td>
</tr>
<tr>
<td>16</td>
<td>3(\frac{1}{2})d. an hour</td>
</tr>
<tr>
<td>15</td>
<td>3d. an hour</td>
</tr>
<tr>
<td></td>
<td>2(\frac{1}{2})d. an hour</td>
</tr>
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with \(\frac{1}{2}\)d. an hour extra in the danger zone.

\(^1\) Cf. Woman Worker, April, 1916.
Similar awards were given in the cases of the Sterling Telephone and Electric Co., Dagenham, Essex, of Vickers, Dartford, and of Aerators, Edmonton (9/4/16). In the case of Messrs. Siemens’ Electric Cable Works, Woolwich, alone, a time rate of 4d. an hour at 18, 3d. an hour from 16 to 18, 2½d. an hour from 14 to 16, was made for girls on rubber and braiding work. Practically the same terms as those of the Eley, Edmonton, case were awarded in the case of Messrs. Creed Bille, Croydon; the Gramophone Co., Hayes; Bradbury & Co., Oldham, Rudge-Whitworth, Coventry; Coventry Ordnance Works, Coventry (19/6/16). All these cases were brought by the National Federation of Women Workers, while the Workers’ Union, which had just concluded a general agreement with two employers’ associations for women munition workers in the Black Country, extended its activities to Coventry and obtained on the same day a successful award, almost on the same lines, in the case of thirteen Coventry firms—an award which subsequently turned the flank of the position of the Birmingham and Black Country Employers, as represented by the Midland Employers’ Federation, when they complained of the wage rates established in July by Order 447.

Should there be a Flat Rate for “Women’s Work”? 

Meanwhile the Tribunal was deliberating on the recommendations to be made with regard to the extension of the regulation of women’s wages.1 Should differential rates according to trade and locality be recommended for women munition workers, in order to maintain existing customs? Should the Ministry evade the question of fixing time rates and their relation to piece rates, by prescribing, on the analogy of the Trade Boards, a minimum hourly earning, leaving the fixing of higher rates to be dealt with locally, if at all? Both these questions suggested methods of treatment containing obvious advantages. They were considered in detail, but were, with some reluctance, answered in the negative, on the ground that employers needed definite directions at an early date as to the wages to be paid for munition work, that it would take too long to deal separately with all the trades involved, and that it was, as the Trade Boards had found after prolonged investigation, difficult to base any logical differentiation of women’s rates on local standards, because so many external influences, such as the choice of employment available and the prevailing level of men’s earnings, affected the wages accepted by the industrial woman, whose conventional payment was comparatively little affected by local variations in the cost of living.

It would have greatly diminished the subsequent opposition to the application of the Ministry’s system of regulation, if some distinction in its terms could have been made according to the trade and locality dealt with, and it would have also removed the necessity felt by the Department of excluding certain trades and firms for a considerable period from any wage regulation. At the time, however, any policy of differentiation was clearly unworkable. It was essential to introduce regulation promptly, if at all, for the demands of the

1 Cf. verbatim reports of the special sessions of the Tribunal, June, 1916.
supply departments were expanding with great rapidity, and more women's work was constantly coming under the elastic definition of "munitions." The Tribunal, therefore, decided that a flat national standard rate for all munition workers on "women's work" was the only alternative, and on 24 June formulated its recommendations, which were subsequently embodied in Orders 447 and 618. These were based partly on the industrial knowledge of its own members. No formal consultations with representative employers or workpeople were held before the issue of the recommendations. The hourly rates put forward were as follows:—4¼d. for time workers, 4d. for piece workers, with 3d. and 2½d. respectively for girls under 16 (i.e., they were a little higher than those suggested in the previous autumn by the Central Munitions Labour Supply Committee); time wages were to be guaranteed to piece workers, and piece rates were to be such as normally to produce 33⅓ per cent. above time rates; overtime, night, and Sunday work were to be paid for on the same conditions as applied to men in engineering establishments in the district.

IV. Order 447: Regulation by Statutory Order.

Order 447, involving the Ministry in the first stages of control and influence over women's wages as such throughout the country, was issued on 6 July, to take effect from 17 July.

Certain points specially are to be noted about the first issue of this Order.¹

(1) It was applied only to a limited number of establishments, 1,373 in all. It covered, however, at this early stage, "90,910 women and 20,758 girls in private establishments, besides many thousands in national factories," according to the estimate of the Wages Section. It was applied (with 136 exceptions, 11 of which were in Ireland and 125 in rural districts in England) to all controlled establishments of the following classes:—

Armaments, ammunition, ordnance; explosives; Filling Factories (except one lately opened); mechanical, marine, constructional, engineering works; machine toolmaking; shipbuilding and repairing; printing and textile machinery; motors and cycles; also certain iron and steel and aviation works, known to be concerned with engineering.

Each establishment to which the Order was applied received a copy of the Order with its name individually scheduled.

(2) It established time rates of 4¼d. and 4d. for women, and 3d. and 2½d. for girls, according to whether they were employed on time or piece work. These were the rates recommended, as has been said, by the Special Tribunal.

(3) It contained, according to the precedents laid down by the Tribunal awards, clauses guaranteeing fixed time payments to piece workers and premium bonus workers (unable from

¹ M.W. 92329/18.
shortage of material or low pricing to earn up to the time workers' rates), and forbidding the carrying forward of debit balances of wages from week to week. These points were raised as contentious questions in their own case by men munition workers, when urged to accept systems of payment by results for their own work in the following year, and the operation of the women's wage Orders was quoted as a favourable precedent. These provisions remained unchanged in successive editions of the Order.

(4) It did not give effect to the recommendations of the Special Arbitration Tribunal on overtime rates and the relation to be borne by payment for piece work to time wages. The omissions and limitations in the Order, much criticised later, were deliberate. Those responsible for its enforcement knew well—and the almost interminable negotiations over payments for the postponed summer holidays brought this home at the time—that there were innumerable differences of local and trade custom as to overtime and other special payments for women, and as to the proportions between piece and time rates, and it was decided not to intervene at this stage in these questions, or in the detailed regulation of a large number of trades which were as much concerned in commercial as in munition work. Mr. Aves, with his experience as Chairman of Trade Boards, had emphasised the difficulties of such interference in June, when the recommendations of the Tribunal were sent to the Minister. It was further pointed out by Mr. Beveridge and Mr. J. C. Smith that the Department did not possess at the time, and could not be expected to possess, the knowledge of rapidly changing industrial conditions necessary for the application of a detailed and comprehensive Order. The primary object of the Ministry was to obtain munitions, and it was in no way clear that a general wages Order rashly issued might not "impede rather than promote the purposes for which the Ministry was intended."

V. Reception of Order 447.

1. The Criticisms of Organised Workers.

Order 447, issued under these conditions and with these limitations, was received with little enthusiasm. On the one side the National Federation of Women Workers demanded and obtained an interview with Dr. Addison, at which they expressed their "profound disappointment" at its terms, for the following reasons:—

(1) The wages prescribed were fixed rates, whereas they should have been minima. (Such standard wages were "worthy only of the Elizabethan period.") Women now earning above these rates might have their wages cut down as a result.

(2) No relation was laid down between piece rates and time rates. A 4d. time rate was prescribed for piece workers,
but, if no proportion were fixed between this and the rates paid for piece work, it would obviously be possible for the employer to exploit the worker by cutting down piece rates until they produced lower weekly earnings than those of the time workers.

(3) No provision was made for special rates for overtime and night work, nor for allowances, e.g., for "waiting time,"1 which had been carefully inserted in most of the Tribunal awards.

(4) The Order was applied to only a limited number of establishments, and omitted most of those whose wages were specially unsatisfactory, such as the electrical engineering and rubber works. "Women on munition work," said Miss Macarthur, "had awaited regulation of wages for a year, since Mr. Lloyd George's 'promises' on 17 July, 1915; the Federation's consistent demand was for 5d. an hour as a minimum, with piece rate earnings at least 33\(\frac{1}{2}\) per cent. above this rate, and with safeguards for overtime, etc., and this order was satisfactory neither in principle nor in detail."

In reply to the deputation, Dr. Addison explained the grounds for the limited and experimental application of Order 447 and undertook that the Department would consider its extension as rapidly as the necessary inquiries would allow; he undertook also that consideration should be given whether some formula as to piece work rates could be devised, and whether instructions as to the payment of overtime, Sunday, and waiting time allowances in some conformity with trade customs could be issued; and he promised to send out instructions to prevent the use of the Order to reduce existing rates paid to individuals or to special classes of workers. The awards of the Special Tribunal, on which this Order was largely based, had equally prescribed fixed rates, not minima, for time workers. It was not intended that the rates laid down should necessarily and invariably be maxima, though (it was pointed out) except in the case of special individuals,2 the sanction of the Ministry would have to be obtained for higher payments.3

Supplements to Order 447. (L.67 and Order 618.)

In fulfilment of these undertakings, two supplementary papers were despatched by the Ministry within the next month.

(i) A ruling by the Minister, issued as L.67, on the interpretation of Clause 8 just referred to, which removed all possibility that the

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1 This had been secured to the "men's work" group, by Clause 2 of L.2 which prescribed payment at the rate of 15s. a week for women "prevented from working owing to breakdown, air raid or other cause beyond their own control," "unless they were sent home." The stipulation was of much importance to the woman worker, in whose frequently irregular periods of employment "waiting time," both before and during the War, might mean a serious loss to an often scanty income. The Trade Boards Act of 1916 contained (Section 8) special provision for payment during such "waiting time."

2 Clause 8 of Order 447 allowed a limited discretion as to payments. "The foregoing rates shall not operate to prejudice the position of any person who has better terms and conditions, nor prevent employers from recognising special ability or responsibility."

3 M.W. 92329/6.
Order as a whole might be used as an excuse for diminishing wages, as the trade union had suggested. "The intention of Paragraph 8 of this Order is that no person who has better terms and conditions than those prescribed by the Order shall be prejudiced either by a reduction in her existing rate of wages, or by her displacement by another person at any less rate of wages. And it is intended that the rates of wages customarily paid to any class of women or girls for particular work shall not be reduced."

(ii) A new Order, No. 618, which supplied the omissions of Order 447, by prescribing (1) that piece work prices and premium bonus basis times should be such as to enable a woman or girl of ordinary ability to earn at least 33\% over her time rate, except in the case of an establishment where an application that this provision should be dispensed with was approved by the Minister, and (2) that additional payment for overtime, night shift, Sunday or holiday work should be made "in accordance with the custom of the establishment or district for the class of workpeople concerned in cases where such a custom exists," or, in the absence of established custom, "in accordance with the directions of the Ministry."

This Order, dated 13 September, was to take effect from 2 October.

The two Orders 447 and 618 were issued early in September to a large number of controlled establishments in addition to those which had received the first Order in July, with an intimation that the Ministry proposed to apply them to the establishments in question unless some special and valid reason against this could be shown by 18 September. "In such a case, the Minister would determine whether the circumstances were so peculiar as to justify him in referring the matter to the Special Arbitration Tribunal."

The two Orders together did not give all that this comparatively small body of "organised" workers demanded, and they left even those women and girls to whom they applied in a markedly inferior position to those engaged in "men's work." They represented, however, a distinct step both in the principle of State interference with wages, and in the practical work of standardising women's rates.

2. The Employers' Attitude.

Meanwhile employers protested against Order 447 with vigour equal to that shown by the representatives of the workers whom it was intended to benefit. Thus the Chairman of the Central Council of the Association of Controlled Firms (Mr. W. L. Hichens) wrote to the Department on 9 September that its members had heard only on the previous day of the proposal of the Ministry to extend Order 447 to Controlled Establishments outside the engineering industries, unless good cause could be shown against this by 17 September. Very many firms to whom the Order was thus proposed were engaged on munitions work to a limited extent only of their output. The Order would have a most disturbing effect on their munition and non-munition work and on conditions generally in their industry and district. Could not the
date at least be postponed, and could not opportunity be given for
detailed protest against "the arbitrary course adopted by the
Department". A reply on 23 September, after some intervening
correspondence, explained that the Ministry was anxious to interfere
as little as possible with the invaluable services of the controlled
establishments, that the settlement of the wages of women and girl
munition workers was urgent, but that protests against the application
of the Order might still be made by letter. The Council accordingly
undertook to instruct its members to forward their objections as soon
as possible. Some hundreds of protests were received, and dealt with.

Other urgent protests were received from the Midland Employers' Federation and the Sheffield Engineering Employers' Association, which sent deputations to Dr. Addison on 13 and 24 September, when they expressed their criticisms of the Order with much pungency. Both these groups represented large employers of woman's labour, in a great variety of trades, which in spite of alterations in the actual goods produced—helmets instead of dish-covers, aeroplane parts instead of cycle accessories, etc.—perpetuated the conditions of women's industrial life before the War. Such conditions even if accepted by the worker without apparent discontent, were from many points of view unsatisfactory.

**Previous Agreements with the Workers' Union.**

In addition to the extra wage cost involved by the Orders, there
was an additional difficulty in that the larger of the two Associations, that of the Midland Employers, had in the course of the last year made successive agreements with the Workers' Union for scales of wages to women or girl munition workers, and its members were naturally reluctant that these should be set aside by Government regulation. It might fairly be urged that the results of collective bargaining were being set aside, in a way that would normally not be contemplated by a Department dealing with negotiations between organised employers and workmen.

Agreements between federated employers and women in the
munition trades have been so rare that they deserve record. In the
autumn of 1915, while the Ministry was hesitating as to the adoption
of the recommendations of the Central Munitions Labour Supply Com-
mittee, a series of agreements were drawn up by the Workers' Union, the largest trade society dealing with both men and women workers in the munitions trades. The first was negotiated with the Midland Employers' Federation for the Birmingham Area on 10 November, 1915. It was followed by a similar agreement on 18 April, 1916, with the Manchester District Engineering Employers' Association, and was extended, with modifications, to the Black Country in May, 1916.

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1 M.W. 92329/17.
2 A year later the Midland Employers' Federation, recently reconstituted
as the "National Employers' Federation," contained sections for no less than
40 branches of the metal trades (M.L. 12214).
3 M.W. 409411.
4 See Appendix V for text of agreement.
These agreements fixed wages at 16s. (Birmingham), 18s. (Manchester), and 15s. (Black Country) for women of 21 and over; 11s., 14s., and 12s. at 18; and 7s., 7s., and 6s. as starting wages for girls of 14 (about whose over-payment on Government work the employers felt strongly), and provided that piece rates should be settled on the assumption that the piece worker should be able to earn 25%—not, as in the Ministry's Order, 331/3%—more than the time rate.

These rates for a 53- or 54-hour week obviously produced much lower earnings than those prescribed by Orders 447 and 618, earnings lower in some cases than the minima fixed by the Trade Boards, though the employers claimed that they represented local advances commensurate with the rise in the cost of living, and that it was unnecessary and unfair to supersede agreements made so recently with a reputable trade union.

**Grounds of Complaint.**

Both groups of employers accordingly complained of the issue of Order 447 on the following common grounds:—(i) the want of proper consultation with themselves, and the short notice at which they were called upon to readjust their standards of payment; (ii) the losses on running contracts, and disadvantage to themselves as against uncontrolled or foreign competitors; (iii) the excessive increases to young girls and consequent trouble with boy employees; (iv) the difficulty of distinguishing between munitions and non-munitions work, or of paying for the two classes at different rates in the same establishment.

Apart from these objections, common to employers in other districts, the statements made by the deputations illustrated the general uncertainty throughout the country, in times equally of peace and of war, about the basis on which women's wages should be fixed, and the extent to which the woman or girl worker ought to be financially independent. The speakers' arguments are, therefore, summarised at some length.

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1 Considerable bitterness against the Workers' Union, on account of these agreements, notably that secured at Manchester, was shown by other unions interested in women's organisation, and was recorded by the trade organs of the Amalgamated Society of Engineers and the National Federation of Women Workers. The Workers' Union, it was argued, was accepting a lower standard of living than that desired by the women's society for women on women's work, and was encouraging its members employed on the debatable ground between "men's work" and "women's work" to accept less than the rates authorised by L.2. In its Record, for August, 1916, the Workers' Union defended itself with vigour. "The crime we are guilty of is that we have improved women's conditions. We did not wait 'till the babel of discussion had evolved some plan, but we said to the others, 'go on talking, but the women need something whilst your interminable wrangles proceed; and we will leave ourselves free to advocate all you are advocating whilst we are receiving.' That was the meaning of the Manchester agreement. It put shillings per week in the individual girl's and woman's pocket—and they needed it. And still they are free to go forward and obtain any other advantage which accrues from statutory orders. The other policy adopted by other unions was to go on talking, and whilst the talk was going on the money was in the employers' pocket." This war of words is not without interest in the process of trade union development during the War, and the relation of skilled to unskilled organised workers.

2 M.W. 92329/17.
1. DEPUTATION FROM SHEFFIELD EMPLOYERS.

There were present at this conference on 28 September, Dr. Addison and Mr. J. C. Smith, for the Ministry, and the presidents of the six local trade associations of the File, Machine Knife, Saw, Cutlery, Edge Tool Manufacturers, and the Master Silversmiths. They represented 259 firms concerned with the "light trades" of Sheffield.

The Secretary of the Chamber of Commerce, who accompanied the deputation, explained that only 10 per cent. to 20 per cent. of its members' work was for munition purposes, but that the "reflex action" of Order 447, if enforced, would go right through the trades concerned. If firms were called on to pay at the rates recently laid down for the small proportion of their work which was definitely "munitions," the whole of their work and workers would be affected. It would be impossible to separate the girls making munitions from these firms from those doing other work. "It is not likely," said the speaker, "that the latter would stand by and see some others getting an eclectic wage while they have to work without it . . . What we all object to about Order 447 is that it has obviously been drawn up, as so many of these documents are, I am sorry to say, in these days, by gentlemen who really have not any notion of the circumstances." The firms represented were already carrying on their general trade under great difficulties; their selling prices were, in September, 1916, much what they were before the War, since the Americans were trading against them as keenly as possible in South America, South Africa, and Australia, and English firms were "trading with restraint as regards prices and conditions," because they were during the War working for good-will at a later date, in order, if possible, to capture trade. Increased labour cost would, therefore, have very serious effects on the prospects of the industries represented.

The speaker explained the many advantages provided by these trades for the women workers of Sheffield. "The employment of all these girls commences on their leaving school and with a few exceptions it ceases at marriage. I do not want to claim that these trades are benefactors, but they cannot help being benefactors in this sense, that the children employed by them learn orderly habits when they leave school and work on for the same firm until they are married, both in "productive" and "non-productive" work. All the work of the non-productive type is easy; the hours are short and the work is conducted in warehouses which are light and airy and in which everything is healthy. As regards the workshop women's labour, that is also the lighter part of such work, and is excellently looked after as regards hygiene." "These girls—of whom there are 10,000 to 15,000—are as happy as queens." Their wages, he added, ranged from 5s. at fourteen (or thirteen since the removal of restrictions under the Education Act) to 10s. at eighteen; for those aged eighteen to twenty-one, wages rose to about 16s. and in some cases higher, with a War bonus of 1s. to 1s. 6d. in many instances. The hours were 43 to 48 per week. If girls and women were paid at the rates laid
down in Order 447, they would earn more in 47 or 48 hours than boys who were going to become skilled tradesmen, and were engaged on productive work, since a boy would start work at thirteen or fourteen at 6s. for a 53-hour week, rising to about 13s. at eighteen. The resulting friction might be imagined. Such a rise in wages would spread through the whole workshop to all the girls engaged in the same type of work whether for munitions or not, and thence to the boys and men. These girls, if not self-supporting, "do their work and have a bit of money in their pockets, all the time when otherwise they would be out of employment, and they are contributing very seriously to the household expenses, but they are not keeping house. There is not much married women’s work in Sheffield."

If Order 447 were applied, it would be necessary to dismiss some girls and make the others work harder. Regulation would bear specially hardly on controlled firms if applied to them, because, as regards their general trade, they would be handicapped as against their competitors. The increased wages would permeate the whole place, and the burden would be put upon the backs of the lighter trades, and it would be a most severe burden.

"Is there any necessity," asked the speaker, "to apply Order 447 to the lighter trades represented before you to-day? Where is the urgency? Everybody was satisfied. Is it not reasonable that our light trades should be exempt from this order on the ground that there is no pressing necessity of any kind for it, and that everybody is well satisfied that the work is, even if it is a little patriarchal, very useful to these people? It may be right to apply Order 447, like L.2, to the substitution of women for men and boys, but it is not necessary or reasonable, in the trades of which 80% is done in severe competition to-day, to impose a heavy advance in labour rates . . . . I put it to you that you should exempt these trades from the operation of the Circular, and if anyone wants to raise wages they must raise them, not on munitions grounds but on the ground of ordinary supply and demand. If not, a special local enquiry should be held, for the Order would affect these different trades very differently. It would bear specially hardly upon the silver plating trade and the silver trades, which have already suffered from the War, though they have given you a good deal of relief in the way in which they have tackled matters like helmet pressing and so forth, which was quite new to their trade. We think Sheffield is taking a very high and strong part in munitions work, and we are rather proud of ourselves. Anything we can do, you have only to ask us to do and we will try and perform it."

Discussion then turned on the points whether cutlery and other light trades were technically "munitions," and as such, subject to wages regulation; and whether, if so, Order 447 must be made applicable to all the firms in these trades, whether they were or were not controlled.

Dr. Addison finally promised to inquire from the Ministry’s legal advisers and from the Board of Trade about these points, to report,
and, if necessary, to hold a local inquiry. He thought that with the possible exception of files and edge tools, none of the work represented by the members of the deputation was "munitions" work, and in any case that Section 7 of the Munitions Act had not been applied in the trades concerned, so that Order 447 was inoperative. He had always been anxious to limit the application of the term "munitions." He would have these two points cleared up, and if that was not sufficient, would appoint someone to hold a special inquiry as to local rates of wages and conditions of employment as had been suggested.

"If, however," he concluded, "you have a large industrial area, as Sheffield is, with a large class of munition works—proper munition works without a doubt—to which the Order is applicable, there would have to be a very good case made as to why we should not apply it to munition workers generally in that place. We will first state definitely as to whether these firms are controlled, and then we will give you a definite reply as to whether the Order is to apply."

2. Deputation from the Midland Employers' Federation.

The Midland Employers' Federation had in June sent a deputation to the Special Arbitration Tribunal, urging that it should be heard before any wage Order was issued, since it had within the past fortnight drawn up a special agreement with the Workers' Union, fixing a weekly minimum of 15s. for adult time workers in the Black Country on women's work "for the duration of the War," and that it had special claims for consideration, both because its members employed jointly the largest number of women on "women's" munition work in the country, and because, unlike most manufacturers of munitions, they had dealt with women in the engineering trades long before the War. The deputation withdrew unsatisfied on this occasion, after unfavourable comparisons made by a member of the Tribunal between the rates agreed on by the Federation and those laid down by the Trade Boards for sweated workers, e.g., in the hollow-ware trade. It had since then carried on an acrimonious correspondence with the Ministry with regard, first, to the composition of the Tribunal, and second, to the necessity for consulting employers of experience rather than officials before making wage regulations. These points were repeated at great length by their representatives at a Conference on the application of Order 447 at the Ministry of Munitions on 13 September, 1916, when Dr. Addison, with Mr. Primrose and Mr. J. C. Smith, met Mr. Harris Spencer, President of the Federation, with ten of its members. Mr. Spencer first complained strongly of the nature of the special tribunal for women's wages. The members of his association "would rather settle with the people than appear before the Tribunal, which in their opinion was not constituted so as to be

1 Cf. Special Arbitration Tribunal hearing, 5 June, 1916. A year later, on munition work alone, approximately six times as many women and girls were employed in the controlled establishments of this district on "women's" as on "men's" work (M.M. 116 returns).
2 M. W. 87395.
impartial."1 In Birmingham they had settled with the representatives of the Trade Unions rather than subject themselves to appearing before this Tribunal. Order 447 had, he maintained, been issued like a good many other things since the War, without conference with the employers at all. It was absolutely impossible to distinguish between munitions and non-munitions work within a controlled establishment in such a way as to apply two rates of wages to women workers, and Order 447, if applied to women engaged on commercial work, would be "one of the most serious things ever done by the Ministry of Munitions." The rates established by Order 447 might apply under special circumstances such as those at Coventry,2 where large numbers of women were being imported for munitions work and cost of living for such workers was high, but in Birmingham and the Black Country perfectly satisfactory agreements already existed between employers and employed. The increases suggested in this Order would amount in some cases to from 50 per cent. to 100 per cent.; for girls of 14 it would be over 100 per cent., as they normally began at 6s., with 7s. 6d. a week at 15, and 8s. 6d. at 16 for a 54-hour week; whereas the lowest rate prescribed in "447" was 13s. 6d. Women at 18, whose day rate was 12s., would now be raised to £1. The Order would create much discontent among boys, whose wages had not been proportionately raised, and cost of production would be indirectly as well as directly increased both in controlled establishments and in those which were partly controlled and partly uncontrolled. Midland Employers felt that they had had little consideration from the Minister since the War began, and thought that the time had come when they should be called into counsel.

The speaker concluded with an appeal to the Minister:—"We do ask you to get rid of this Special Tribunal, which is not satisfactory to us at all, or we ask you to dilute it so as to bring it into an impartial condition. We not only want you to withdraw this Order 447, but we want you not to issue such Orders in future without consultation with us."

Later speakers drew attention to other difficulties. Thus, at a very large Birmingham works in which 12,000 girls were employed most satisfactorily, in the majority of cases on a system of payment by results, their piece work earnings were much above, although their time rating was below, the level prescribed by the Order. If, however, the high time rates of Order 447 were fixed, and piece work earnings

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1 The only member of the Tribunal who could be held definitely to represent the employers' point of view (although in theory no member of the Tribunal was definitely "representative" of any party interest) was the Secretary of the Engineering Employers' Federation, which admittedly had much less pre-war experience of women's employment than had the Federation of Midland Employers. The Tribunal contained two Trade Union members.

2 It had been pointed out to the Federation that the group of awards made in June by the Special Tribunal with regard to a number of important Coventry firms, had been on the same lines as those of Order 447, that their application must almost inevitably spread to Birmingham and the Black Country, and that opposition from these districts to the application of Order 447 was therefore misdirected.
had to be one-third above them, the whole basis of payment would be upset. Again it was argued that 90 per cent. of the women munition workers in the district lived at home, and therefore did not need the same high rates as imported workers; and also that with much of the local trade, made to stock, it was impossible to tell if it was for the War Office or Ministry of Munitions, ultimately or not, i.e., whether it was or was not "munitions" work and therefore subject to regulation.

Dr. Addison, in reply, first defended the Ministry warmly against the charge of neglecting the interests of employers, and then explained and justified in detail the composition of the Tribunal. He admitted that the scale of wages for the girls under 16 needed reconsideration. As to the older workers, "if you can show me," said Dr. Addison, "a munition contract which does not allow the employer to pay women more than 12s. a week, I will revise the contract." The Ministry would welcome a suggestion for distinguishing in the application of the Order, between "munitions" and "non-munitions" work, a distinction often exceedingly difficult to make in practice.

The delegates repeated their antipathy to the constitution of the Tribunal, but indicated that a probationary period before the payment of higher wages might partially solve the immediate question of the wages Order. Many of the "women" employed were, urged the deputation, very little more than children, who had not yet learnt to speed up and wasted their own and their employers' time, and the scale of wages proposed was quite inappropriate, unless substantial modifications were introduced in their case.

The Minister undertook to consider the points which had been brought forward and the conference closed.
CHAPTER VI.

"WOMEN'S WORK": THE EXTENSION OF REGULATION.

I. Recommendations of the Special Tribunal.

The problems raised by the deputations described in the previous chapter were, on 3 October, 1916, referred by the Minister of Munitions to the Special Arbitration Tribunal, together with the protests sent in by firms which had been warned of the probable application of Order 447 to their works. The Tribunal was asked to advise whether Orders 447 and 618 should be applied in their entirety, or, if not, with what modifications, to controlled establishments in the following trades:

1. *(a) Electrical Engineering, (b) Telegraphic Engineering, (c) the manufacture of Electric and Telegraphic Accessories.
2. *The Wire Rope Cable and Hemp Rope Trades.
3. (a) The Bolt and Nut Trade, (b) the Screw Trade.
4. The manufacture of Saws, Files, Cutlery and similar articles.
5. *The manufacture of Tubes.
6. The manufacture of Tin Boxes.

On October 17 this reference was extended to the following trades:

7. *Iron and Steel Works.
8. *(a) Iron and Brass Foundries, (b) Lead Works, (c) Copper Works.

This truly miscellaneous collection of trades included those firms which had claimed exemption from the operation of the proposed uniform wages Order on grounds of special difficulties of industrial organisation or of local custom.¹

¹ C.E. 1198/4B.—The objections raised by firms show the real difficulty of their position, in some cases. Thus a rubber firm in a small country town based its protest on the following grounds: The adoption of the Orders would raise rates for girl workers 3d. per hour above their present rates, which produced on time work weekly earnings varying from 7s. plus 1s. 6d. war bonus for beginners of 14 to 14s. with 3s. bonus for the adult worker. This rate was already 3d. above the Workers' Union rate for the district. An advance would involve a
If the Ministry were to apply regulation to women's wages in all these trades, it would be invading the greater portion of the metal and engineering industries of the country, hitherto only in part affected by the application of L.2, together with the rapidly developing chemical industry and a group of varied occupations in which women had for many years been employed, but with the industrial conditions of which the Department had hardly come into contact, except through applications for sanction—often almost formal—to advances of men's wages by the firms included in them. It would also be cutting across trade agreements in certain cases, such as that of the Midland Employers' Federation, already often quoted, and of the hollow-ware and pottery employers, while it might also appear to supersede the Trade Board rates scheduled in the hollow-ware and tin box trades.

After some twenty meetings, at which representative employers and workers were heard in person, and detailed consideration was given to the protests sent in by the firms concerned, the Tribunal reported to the Minister as follows.

(a) Orders 447 and 618 should be applied to the trades marked with an asterisk in the preceding list, including certain silversmithing and mechanical engineering firms specially scheduled.

(b) They should not be applied to the following trades: Bolts, nuts, and screws; tin boxes, so far as they were subject to Trade Board rates; pottery, fire brick and fire clay; the paper mill board and paper mill trade; soap, oil and seed crushing, glass, glassworks, emery, aluminium.

(c) Woodworking should be brought under Order 621 issued for women on aircraft work.

(d) With regard to saws and files (No. 4 in the list), a sub-committee of the Tribunal would visit Sheffield, where this trade was mostly carried on, to decide whether Orders 447 and 618 should be applied to it.

similar advance to men workers, and would greatly complicate the system of premium bonus in use. Finally, and most important, only 45% of their work was "munitions."

C.E. 1153/4B.—Another rubber company, specially skilled in postponing the adoption of wages Orders for those of its 2000 workers employed either on "men's" or on "women's" work, wrote from Scotland complaining that it was impossible to comply with the Order, especially in its directions as to the ratio between piece and time earnings. Several thousand piece rates were in force in the establishment, and a fresh assessment of these would be most laborious and costly. In this case also, a large proportion of the firm's work was for private, not Government, orders.

C.E. 4946/4.—A firm of soapmakers, known for its detailed care for its workers, explained that its rate of pay for its women workers when on time work varied from 7s. at 14 to 17s. at 18 for a 45-hour week. This arrangement had been found to work perfectly.

C.E. 2776/4.—A small leather working firm at Birmingham asked for exemption on the ground that only 34% of its work was for Government, that its private trade must continue after the War, and that its existing wage rates ranged from 6s. for beginners to from 17s. to 19s. for adult women. These are typical of the representations made by protesting employers.
The Tribunal also made the following recommendations:

(1) That lower time rates—2d. and 2½d. an hour guaranteed when on piece work, and 2½d. and 3d. when on time work—should be prescribed for girls of 14 and 15 respectively. (This met one of the objections raised at the two conferences described above.)

(2) That "there should be a probationary period of 1 month, 2 months, and 3 months, for workers of 18 and over, of 16 and under 16 respectively, during which ½d. an hour less should be paid." (This deduction during the probationary period had been agreed to in the case of the British Thomson Houston Co., of Rugby, brought by the National Federation of Women Workers in June, 1916, and in the award for the Hendon Aircraft Manufacturing Co., in the previous April. It corresponded to the probationary period of 13 weeks for women on skilled men's work which had lately been hotly debated before the Tribunal.)

(3) That in certain outlying districts, ranging from Cornwall to the Kyles of Bute, the rates should be reduced by ¾d. or ½d. an hour.

This proposal to grade rates downward represented an attempt to take into consideration local custom and cost of living when fixing rates of wages. A triple classification of districts and firms for purposes of payment had been considered by the Tribunal during its deliberations in June, but had been rejected as too elaborate.

(4) That where hardship was caused by the controlling of one or a small proportion of the total number of establishments engaged in any particular trade, such an establishment, if at all practicable, should be decontrolled. This suggestion met another of the Sheffield employers' objections to the Order.

On 18 January, 1917, the Special Tribunal finished its labours under the terms of reference of 3 October, 1916, by reporting on its visit to Sheffield. It recommended that the "light trades" of Sheffield and elsewhere, including the saw and file trades, should be scheduled under the amended Orders 447 and 618, i.e., with the modifications suggested on 10 December, 1916, for young girls and learners, and with rates ¾d. per hour less for the women and girls on "non-productive" work in warehouses, about whom such strong representations had been made.

II. Revised issue as Order 9 of January, 1917.

Orders 9 and 10¹ of 1917 (dated 6 January and 22 January, respectively) enforced these recommendations with some changes of

¹ Order 10, subsequently reissued as Order 493, was identical with Order 9, except that the rates contained in it were in each case ¾d. per hour less. It was applied to a few outlying firms in which it was manifestly unreasonable to expect the same standard and cost of living as in the big industrial towns. The Special Tribunal had just before this dealt with the case of a small firm at Lutterworth, which employed ten women on wiremaking and insisted that 12s. a week was a high wage according to local village standards. The Tribunal's award of 4 ¼d. and 3½d. an hour in this case foreshadowed the rates of the new Order.
detail, and superseded Order 759 of 1916, which a month previously had consolidated the previous regulations about women and girls on women's work.

Just before the issue of Orders 9 and 10, another deputation from the Midland Employers' Federation was received at the Ministry on 3 January, 1917. The deputation raised very similar points to those discussed in the previous September. Its members had heard of no action being taken on their representations at that date; the constitution of the Tribunal was still unsatisfactory; the difficulties anticipated about boy labour and apprenticeship were being experienced as a result of the Ministry's Order, since girls of 14 and 15 were receiving high pay instead of wages "proportionate to the services which they could render"; the provision that piece rates should produce earnings 33½ per cent., rather than 25 per cent. above time rates, was needlessly setting aside a custom which had worked satisfactorily in 90 per cent. of the trades of the country; above all, there was no real demand for regulation at all among the operatives, whatever their so-called representatives, with whom alone the Ministry came into contact, might say. Once more the deputation complained that the Federation, representing very large employers with much experience of female labour, had not been consulted before the issue of the Orders. Mr. Kellaway, who received the deputation, pointed out that the new Orders met one of these objections by providing lower wages for girls under 16; that the rise in the cost of living justified a rise in wages; that the extension of Order 447 had been deliberately delayed as a result of the representations made by employers in September, and had only been applied to some—not all—of the trades with which the deputation was concerned, after most careful consideration by the Tribunal; and that the constitution of the Special Tribunal might possibly be amended if necessary.

Complaints of the regulation of women's wages from the points of view of employers and of workpeople often coincided, in date if not in substance, Thus on 17, 20 and 21 December, 1916, and in January, 1917, a series of letters appeared in the Times denouncing the Ministry of Munitions for the low wages still paid in some controlled establishments—instances were alleged in which 8s., 9s. and 10s. a week were paid to women munition workers—and for the exclusion of certain occupations, the bolt and nut trade, the ammunition box makers, the electrical workers, from the operation of the Orders. Much had been done, it was admitted, in raising wages, but there were still inexcusable exceptions among women subject to the leaving certificate regulations, and therefore unable freely to change their work.

When the Special Tribunal, as a result of its autumn deliberations, issued its recommendations on the emendation of Orders 447 and 618 and their application, in the form of Orders 9 and 10, to certain fresh

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1 M.W. 92329/17.
2 Mr. Warne Brown, Secretary of the Midland Employers' Federation, was shortly afterwards added to the Tribunal, together with Mr. Duncan, President of the Workers' Union.
industries, protests were made, in December, 1916, and January, 1917, by the National Federation of Women Workers and others, that these orders lowered the rates of pay for women, whereas they ought, owing to the increase of prices, to be raised. This was a fair criticism at the moment, but it had been deliberately decided by the Department to make these incidental reductions by way of adjustment, and to consider at an early date a general increase of wages to women munition workers as a whole.¹ Order 9 met the objection raised by the Sheffield and Birmingham employers, as to their warehouse girls, by providing that where it had been customary to pay special rates for such work—the lightness and cleanliness of which gave it attractions counterbalancing its comparatively low pay in the estimation of the young worker—these might still be paid with special permission from the Ministry, while girls of 14 and 15 were to receive 2d. and 2½d. an hour respectively instead of 3d., as in the first Order, and learners of different ages might be paid, for periods of from one to three months, 3d. an hour less than their appropriate time rates. The beginners fresh from school would thus still start work with 3s. or 4s. higher weekly wages than the normal rate in the Midlands just before the War, while a reduction of 2s. or 2s. 6d. from the full weekly wage, for a brief and limited period, was a very moderate reproduction of a common custom in training older entrants.

With regard to the ten trades excluded from the operation of the Orders by recommendation of the Tribunal in December, 1916, special reasons were given in a departmental memorandum.

(i) The Bolt and Nut Trade, about the standard of payment in which there had been frequent complaints both from workers and from outside sources, was partially covered by an Award (No. 549) of the Committee on Production on 27 October, which gave an advance of 3s. or 5 per cent. to the men in the trade (members of the National Union of General Workers) at Darlaston, leading to an equal advance of the women's wages from 12s. before the war to 15s., with 5 per cent. increase on piece rates. Further, an agreement with the Workers' Union had given an increase of 7½ per cent. to women in the area of the Yorkshire and Lancashire Bolt and Nut Union; while an arbitration case was pending with a representative firm in the trade (Guest, Keen & Nettlefold). For these reasons the Tribunal felt that further interference was at the time unnecessary. The award on this last case on 23 January, 1917, was for a time wage of 19s. per week for workers of 18 and over, 10s. for those under 15, with piece rates 25 per cent. above time rates. In the case of the Rivet and Nut Co., Gateshead, the National Federation of Women Workers had secured to the small number of women employed the ordinary Order 447 and 618 rates by an award of 12 December, 1916.

(ii) Tin box, hollow-ware, and paper box making firms (the latter represented by only two controlled establishments) were mostly under their respective Trade Boards, with initial wages of 6s. and wages for 18-year-old workers of 16s. 6d. and 12s. (rising to 15s. at 21),

¹ M.W. 92329/22.
respectively. A large number of these women were said to be earning comparatively good wages on piece work, and it was felt to be difficult to superimpose a second and higher set of official wages on these industries, especially as few firms were concerned from the point of view of the Ministry of Munitions.

(iii) In the case of pottery and hollow-ware, the workers came under a Trade Union agreement of 1 May, 1916, providing for warehouse women and girls 5s. at starting, rising to 12s. at 21, and for dipping-house women 10s. to 13s., with a 10 per cent. bonus; "low rates, but the Tribunal thought that where agreements had recently been made for the whole of a very large trade there was no case for imposing a higher scale for the small proportion of women engaged on munitions work in the few controlled establishments." For similar reasons, the Tribunal refrained from interference with the other trades referred to it, except in the case of woodwork, for which a new special order was about to be issued on the lines of Order 621 already issued for aircraft workers.

III. Position after the issue of Order 9 (January 1917 to June 1918).

The Worker’s Financial Position.

After the issue of Order 9 in January, 1917, the position with regard to payment for women’s work was as follows, in so far as the statutory wages Orders were observed in the establishments, ranging from 3875 in the spring of 1917 to some 6000 in the following year, to which they had been applied. On time work the woman munition worker received a standard wage (nominally only exceeded by permission of the Ministry) of 4½d. an hour, or 20s. 3d. for a 54-hour week. Her minimum earnings on time work were therefore from 2s. to 3s. below that of the women on men’s work. On piece work she was guaranteed a rate of 4d. an hour, and her piece work prices had to be adjusted so as to secure her at least 33½ per cent. above this rate. She was, however, in an even less advantageous position financially compared with her neighbour on men’s work when on piece work than when on time, since the latter’s piece rates were based on those previously earned by men; the normal woman on woman’s work in January, 1917, however, under the regulations received at least 24s. for a 54-hour week on piece work. These rates were raised in April, 1917, when the rate for time workers was fixed at 5½d. an hour, and the guaranteed time rate for piece workers at 4½d. an hour (Orders 492 and 493); the piece rates themselves, however, were not to be changed. In August, women on women’s work shared the advance of 2s. 6d. based on the increased cost of living for all women workers, while in December they received another statutory advance of 3s. 6d. a week. At the end of the year, therefore, time workers would receive for a 54-hour week 30s. 9d., piece workers not less than 34s. 6d. with a guaranteed time rate of 27s. 4½d.

No distinction was made, as in the regulations for women taking men’s work, between different grades of work, but a probationary
the period of lower earnings was allowed for the munition maker on women’s work. In danger zones an extra ½d. an hour was guaranteed, while extra payments for processes “dangerous or injurious to health,” such as doping work on aeroplane wings, were sanctioned in principle. The actual rates for such work—dangerous to many workers despite the precautions enforced by the Home Office and the Ministry of Munitions—were fixed departmentally or by arbitration award in each group of cases brought before the Ministry. It was, however, urged by some of the women trade unionists that certain firms whose cases had not been so reported, did not give extra payment to these workers, and that some uniform rate should be fixed which should represent some sort of compensation for risk.

Deputations organised by the National Federation of Women Workers in the spring of 1917 called attention to the difficulties of the position of the women on “women’s work” owing to the effect of the constant rise in the cost of living on the value of their comparatively low earnings. This bore specially hardly on the large numbers who were working at a distance from home, and were living in hostels or in lodgings. Board and lodging, said a Birmingham delegate on one of these occasions, cost a girl worker from 15s. to 18s. a week, and this, after payment for the extra food which the vigorous young munition maker expected during the day, for fares and other necessary expenditure, left little margin in the workers’ weekly income. After the statutory increase of time rates in April, already recorded, the piece workers showed much discontent in some areas, especially in Coventry, already affected by the widespread strike of men in the engineering trades.¹ In this district, the employers offered to raise piece rate earnings by 4s. a week to correspond to the time worker’s advance, and to the 5s. recently awarded to engineers of all grades by the Committee on Production. The Ministry, however, discountenanced such a form of bonus. Both in July and in November, 1917, a general advance of 10s. for all women munition makers was claimed by the Standing Joint Committee of Trade Unions representing women workers and was considered at length by the Special Arbitration Tribunal. As a result, statutory orders were, as has been said, issued by the Department, enforcing weekly advances of 2s. 6d. in August and 3s. 6d. in December (with half-rates for workers under 18) for women and girl munition workers whether employed on time or on systems of payment by results. The woman on “woman’s work” had reached this financial position at the end of 1917.²

Further Extension of Regulation.

(a) Outlying Trades and Establishments.

The history of the Orders during the year was not eventful. The few controlled establishments making rope were brought under the

¹ L.R. 976.
² These rates were unchanged at the date of the Armistice, in November, 1918, except for an advance of 5s. to women and 2s. 6d. to girls in the previous August. (Cf. p. 99.)
women's wages Orders in the course of the year, though the hemp rope manufacturers were allowed, in view of competition from uncontrolled firms, especially in Belfast, to pay at the rates laid down in Order 9, instead of at the higher rates later due. Order 492 which succeeded Order 9 after the April advance, was applied in September (thus reversing the decision of the previous year) to controlled establishments in the bolt and nut trade, in which wages were as a whole notoriously low.\(^1\) Its rates had in the previous month been made binding by the Special Tribunal on bolt and nut making firms in the Black Country and Smethwick area, while in November it was sent, along with the Orders for "men's" work, to controlled establishments in the same trade. This closed temporarily a lengthy period of intermittent warfare between firms in this localised trade and various bodies of organised workers.

During the summer and early autumn, the Orders were, under the powers of the Munitions of War Act of 1917, sent to certain other uncontrolled establishments and to the large number of "certified undertakings" (gas and electric works and tramways), brought under regulation for the purposes of "men's work" in September and November. The scope of Order 9 and its successors was, therefore, considerably widened. It still remained the only statutory source of control of wages in the chemical trade, since those of women on "men's work"—one-third of the whole number employed—had as yet been controlled only by recommendations from the Department and by precedents laid down by awards of the Special Arbitration Tribunal.

Optical and scientific instrument makers' wages were also regulated as "women's work" alone, since it was held that these were entering and learning the trade as a permanency, and not only as substitutes for, or competitors with, skilled men. A special arrangement existed by which after six months, women must receive at least 7d. an hour, and thereafter work up to the man's rate. The following munition trades alone remained exempt from the provisions of the "women's work" Orders: oil works and seed crushing, fertilisers, soap, glass, paper, leather, pottery, firebricks and fireclay, emery and aluminium, together with the tin box, hollow-ware, and paper box makers, in so far as they were subject to the Trade Boards Act. Except in the case of the tin box and hollow-ware makers (who received the statutory advance of August, but not the Ministry's Orders fixing standard rates), the number of women workers in these occupations who could possibly be said to be engaged on "munitions" was almost

\(^1\) The piece work earnings of the Darlaston nut and bolt workers—many of them married women with inherited traditions of the trade which tended to remain in certain families—were returned in April, 1917, as ranging (for women piece workers) from 3·3d. to 4·6d. per hour (M.W. 180306). Timekeeping was noticeably bad in the trade as a whole.

The total number of women employed in the manufacture of bolts and nuts, rivets and screws for Government and other purposes combined was about 14,000 in July, 1917. (Report by Board of Trade on State of Employment, July, 1817.)
negligible. The Tribunal was, however, asked at the end of the year to advise on their inclusion also within the sphere of the Orders, and the majority of them were scheduled for regulation in June, 1918.

(b) Ireland.

In March, 1916, the position of twelve Irish controlled establishments, almost all in Belfast, was referred to the Tribunal for special consideration with regard to women's wages. The Tribunal did not issue any formal report on the matter. There were obvious difficulties in extending an English standard wage to Irish works with lower wage standards and lower cost of living. The Trade Board authorities had realised this difficulty, and members of the Engineering Employers' Federation represented it emphatically to the Committee on Production when the claims for general advances to male workers were being considered in the following year. Just after the issue of Order 447 in July, 1916, eleven Irish controlled establishments were quoted as among the exceptions to which the Order was not applied.

On 6 March, 1917, in reply to a question by Mr. Anderson in the House of Commons why no wage regulations had been applied to Irish controlled establishments, Sir L. W. Evans stated, for the Minister of Munitions, that "Controlled Establishments in Ireland are very few in number and employ few women. The Orders regulating women's wages were made with regard to the conditions prevailing in Great Britain. Careful consideration is now being given to those prevailing in the controlled establishments in Ireland." As a result of this consideration, the wages Orders for women both on men's and on women's work were in June, 1917, applied to the four National Factories, and to fifteen out of the seventeen controlled establishments (excluding two soap works) in Ireland. Only some 2,000 women were contained in these two groups of munition makers. A few hundred women working for uncontrolled munitions firms remained at the time, like those in similar employment in Great Britain, without the protection of the statutory Orders.

The Consolidated Order (May, 1918).

The Consolidated Order for women munition workers' wages, issued in May, 1918, after nearly a year's discussion, modified the position of those on "women's work" in the following respects:

(1) The normal rates prescribed were still, despite the reiterated criticism of the women's trade union representatives, "standard," not "minimum" rates. Directions were, however, inserted (paragraph 31) providing for the payment of higher rates under "special circumstances," to women employed "on specially laborious or responsible work or on work requiring special ability." The amount of extra payment was to be settled either "by agreement between the parties concerned with the sanction of the Minister of Munitions, or failing agreement, by arbitration." The capable worker, or the women who could take responsibility for others' work, need therefore no longer

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1 M.W. 88273/4, etc. 2 M.W. 92329/41.
nourish a sense of injury by comparison with those "intermediate" workers whose position had been earlier guaranteed in order to promote dilution.  

(2) A somewhat complicated provision was introduced to remove the grievance complained of in some cases by piece workers. This was explained as follows in a covering letter sent out by the Department with the Consolidated Order.  

"The principle of differential time rates for time workers and those on systems of payment by results is abolished. The same time rates" (of 5½d. per hour for adults) "are now prescribed for both classes of workers, but the percentage which piece work prices or premium bonus allowances are required to yield has been altered from 33½ per cent. to 25 per cent." (the proportion upheld two years before by the Midland Employers' Federation on the experience of the Birmingham district). "Where prices or times already yield 25 per cent. over the new time rate no alteration in either prices or time is required. As the earnings of premium bonus workers depend on their time rate an alteration in the latter would mean an automatic increase in earnings for the same amount of work done. Piece workers on the other hand, whose earnings are now calculated in terms of their time rate, would receive no such increase. It has, therefore, been necessary to provide that the earnings of women and girls who are now employed on premium bonus systems shall continue to be calculated on the existing time rate" (of 4½d. an hour) "provided their earnings reach the level of 25 per cent. over the new time rate." (Paragraphs 10, 13, 19 and 24.)

Thus the common pre-war ratio between time and piece rates was restored, while the piece worker was secured a position certainly no worse and probably considerably better than that of the time worker. Since the primary aim of a scheme of payment by results is to stimulate production, all piece work systems were probably intended to secure the piece worker such superiority. It had, however, rankled in the mind of certain piece workers—representing probably the great majority of women—on "women's work"—that in the previous April, 1917, they had received no general advance comparable to that of women time workers or of the male piece workers who shared in the first general advance in the engineering trade of that month. The basis rate of premium bonus workers was left unchanged on the ground explained in the Ministry's letter.

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1 "This is an excellent and far-reaching provision . . . almost the only thing to be praised in the much-advertised and much-awaited Order," was the comment of the organ of the Women's Trade Union League (Women's Trade Union Review, July, 1918). Efforts had been brought to bear on the Ministry during the year (chiefly by the National Federation of Women Workers) to introduce such a revised form of regulation. Without it special rates were sometimes, but rarely, sanctioned for classes of workers by the Department. Thus in the case of a large motor works where acute discontent was said to have been caused in a "formerly perfectly happy department" because the machine workers on "men's work" secured under the newly revised version of Circular L.2 higher wages than the upholsterers on "women's work," special rates for the latter were sanctioned by the Department in January, 1917 (C.E. 2182/4B.).

2 Circular M.M. 194.
IV. Summary, 1915-1918.

The Ministry of Munitions, in the course of three years, thus established a system of regulation which covered "women's work" in some eighty occupations and sub-divisions of trades. It accomplished this gradually, passing through, first, a preliminary stage during which the need of regulation was argued out and accepted and the ground cleared by the early awards of the Special Tribunal; secondly, a period of revision and considered application of the first Order of July, 1916; and thirdly, a period of partial differentiation between employments and districts, ending in the Consolidated Order of May, 1918.

The difficulty of introducing such regulation into well-established women's occupations has been explained. It was compared in a departmental communication to the Press in January, 1917, to "sticking a knife rashly into the works of a watch," and the delay in the prompt and general extension of the scope of the Orders to all women munition workers was due primarily to this cause, and to the effort, characteristic of the whole of the wages administration of the Ministry, to hold the balance true between the interests of employers and of labour. It was perhaps unfortunate that both parties were not consulted more before the successive Orders were issued, but modifications were made by the Department in answer to subsequent criticisms of either side as has been described.

The result secured by no means represented a revolution in industrial conditions. The 5½d. hourly rate (with 6s. war bonus) prescribed for time workers at that date only just equalled the pre-war Trade Board rate of 3d. an hour, if the calculations as to the rise in the cost of living quoted in the claims for advances before the Committee on Production are (though this is a debatable point) to be accepted.

The unskilled labourer in the engineering trades had by the same date more than doubled his weekly wage even when on time work (i.e., he had received 20s. advance in his rate plus 12½ per cent. bonus on earnings). When amounts much above 30s. a week were earned on "women's work," as in some of the examples quoted on page 100, the workers were either doing overtime up to the full legal limit, or were employed on some remunerative system of payment by results. But the average earnings given on page 101 show (allowing for the fact that an average conceals the extremes at either end of the scale) that the general level of payment to these women was not high, even by a pre-war standard, if its real value be considered.

The regulations of the Department established no new principle in the very difficult problem, what should be the theoretic basis of women's payment. They secured, however, for the women making munitions, examining them, packing them, or performing the multifarious occupations involved in looking after the needs of others so engaged, a weekly income which, if work went on normally without broken time, represented a "living wage" to the self-supporting worker
and a good deal more than a living wage to the girl living at home. The establishment and application of the Ministry's rates proceeded by piecemeal advances, often apparently as a result of external pressure. By the midsummer of 1918, however, the Department's system of wage regulation in these branches of munition work had produced the following results. It placed almost all, if not quite all, munition makers engaged on "women's" work in a financial position which on the whole secured, with a small margin over, their physical efficiency according to the standard most usually quoted; it gave to employers a standard of payment and safeguarded them from "unfair" underselling by others who were ready to adopt a lower standard; and it introduced the very important principle of State control of wages (hitherto confined to a limited number of low-wage industries) into occupations permanently performed by women and not only entered by them under the special limitations attached to "war work."
CHAPTER VII.

THE WOODWORK AND AIRCRAFT WAGES ORDERS.

I. Woodwork for Aircraft.

Special Conditions in the Aircraft Industry.

The manufacture of aircraft had developed so much during the War as to constitute practically a new industry. It had absorbed men from different woodworking trades—joiners, cabinet-makers, coachbuilders, organbuilders, etc.—together with numbers of women new to any kind of woodwork, and had had acute internal difficulties during its growth over questions of piece work, standard rates and working rules. Apart from a long-drawn battle over the introduction of systems of payment by results in aeroplane making, the main difficulty in settling rates of wages and conditions of work in the industry was due to the composite sources of its labour supply. Each of the six or seven trades and the ten or eleven craft unions drawn into the woodworking side of the industry imported its own standards of wages and hours, and was ready to give these up only if assured of the rates of payment and working conditions of the most favourably situated of the competing trades. The point of view of employers showed almost as much variety, for aircraft woodwork was produced in shipyards and in establishments in the building, furnishing, coachbuilding and engineering trades, as well as by firms which had given themselves up to the manufacture of aeroplanes. The difficulty of standardisation under these conditions is obvious. After much discussion, however, and sporadic strikes, the contest was, or should have been, ended by the issue, in February, 1918, of a Statutory Order prescribing a minimum wage (of at least 1s. an hour) and a normal working week for skilled men engaged on woodwork for aircraft.

Meanwhile, the position of the women engaged, in increasing numbers, on woodwork processes, remained on the whole less favourable than that of their neighbours in engineering works. No one union of men employed upon aeroplane woodwork had secured a position at all approaching that of the A.S.E. in the engineering industry; profound suspicion of dilution was frequently expressed by officials of the chief woodworking unions (notably the Amalgamated Society of Carpenters and Joiners); and in the first stages of the introduction of women, none of these societies insisted in advance, or at least insisted with the effect of the A.S.E. in another sphere, on the men's standard rates for women who performed similar work.

In April, 1916, a small inter-departmental conference was held at the Ministry of Munitions on points bearing on the organisation of the aircraft industry. Among other points discussed, this conference
suggested a standard wage (of 3d. to 5½d. an hour) for women workers, whom, despite the opposition of the principal trade union concerned, it was held to be necessary to introduce into aeroplane work, and the subject was referred on May 4 to the Special Tribunal for further consideration. The Tribunal accordingly held a series of conferences in May and August with aeroplane manufacturers, and with five of the woodworking trade unions concerned. It was difficult to ascertain to what extent the employment of women on aeroplane woodwork could be based on pre-war experience. Women were actually engaged with success in the early summer of 1916 on various processes of the manufacture of aeroplane wings, the assembly and taping of ribs, finishing machine-made struts, polishing propellers, etc., while some half-dozen more operations in which they might be useful were, even at this date, suggested by employers and workmen. Before the War, the industry was largely experimental; a skilled workman, joiner or patternmaker, would make a "rib" by hand, and few women, if any, had been employed by members of the Society of British Aircraft Constructors. But when the rate of production multiplied a hundredfold, a subdivision of work became possible and necessary, and even in the work previously done by a skilled joiner, the use of "jigs" made the work practicable for quite untrained workers. In three days, it was reported on one occasion by the Admiralty representative who watched some of the early experiments in using female labour, women had learned to make perfectly serviceable ribs for seaplanes.

The woodworking trade unions showed as much reluctance as the engineers had shown to admit women into their side of the aircraft industry, the more so as, they urged, there was still unemployment among their members, some of whose original trades had been most seriously affected by the War. The same arguments as those of the engineers were produced about workers doing "part or portion" of a skilled man's job. It was impossible, said Mr. Bramley of the National Furnishing Trades Association at a conference with the Tribunal on 5 May, 1916, to distinguish finally between skilled and semi-skilled work in his trade. "You can take any piece of ordinary joinery or any piece of ordinary cabinet work and subdivide it into small sections, and by a process of sectionalising the trade you can almost describe it all as semi-skilled labour. The common practice in our trade is that as soon as a person picks up tools of any kind and begins to use them, they are in the skilled department of the industry. The only unskilled men we have are general labourers, who do not use tools at all." Women were already using hammers, saws and chisels, and were only assisted in their work by the provision of jigs and moulds such as carpenters had often contrived for themselves in their ordinary work. Clearly, then, such women at least should have higher rates of pay than those on merely "women's" work; and the trade union representatives urged that the starting wage should be 6d. an hour, rising after a period of probation to the full district rate, while women whose work at the start was that of a fully skilled man should begin with the full district rate.
Incidentally, they urged very strongly that no women should be employed on woodcutting machinery because of the special danger involved, and that any introduction of female labour should be regarded as a temporary war measure only.

The employers maintained that a good deal of the work on which women were, or might be, engaged, was light repetition work suitable to young boys, and resembling toy making in some ways; and the workmen’s wishes were not wholly met by the subsequent regulations for women’s wages.¹

The Women’s Wages Orders.

On 17 August, 1916, the Tribunal issued detailed recommendations for the payment of women on woodworking processes in aircraft. The time rating was to be 5d. an hour for time workers and 4½d. an hour for those on piece work, with ½d. an hour extra for inspectors and gaugers; women on machine processes, after eight weeks’ probation, were to be rated at 6½d. an hour, but girls, for whom lower time rates were prescribed, were to be excluded from machine work. Night shift and Sunday and overtime allowances were to be the same as those “customarily prevailing among men in the establishment in question.” Piece work prices and premium bonus basis times were to be fixed by mutual agreement between the employer and worker (a provision subjected to considerable criticism later), and were to be such as to enable a women or girl of ordinary ability to earn at least one-third above her time rates. In April, 1917, these hourly ratings were increased to 6d., 7d. and 7½d. (thus corresponding roughly to the standard and “special” rates obtained by unskilled and semi-skilled women in the engineering trades), while, like other munition workers, women on aircraft work received a 6s. weekly war bonus in the course of the year.

The application of the Orders had some of the same difficulties as those surrounding Circular L.2, in so far as women were doing part of the work previously done by skilled men. No guarantee of the skilled workman’s time or piece rates was given in the Order, but it was urged periodically on behalf of the women engaged in the industry that, at least in certain cases, they, like the women substitutes in engineering works, were entitled to the rates (however debatable these were at the time) of the fully skilled men whom they replaced. The question was raised at an early meeting of the Women’s Trade Union Advisory Committee in December, 1917, when the Ministry was asked to secure to these workers “skilled” time rates by applying to them Order 489 (the contemporary version of L.2) instead of the special aircraft Order. Their position as substitutes for men, it was urged, was similar in the engineering and aircraft industries, whereas their financial position was quite different. A claim for advanced rates at Coventry had recently been refused by the Special Arbitration Tribunal, and much unrest was said to have been caused among women aircraft workers in that town, while their position—as “unwilling blacklegs,”

¹ Conferences of Special Tribunal, 15 and 16 May, 12 June, 2 August, 1916.
according to representatives of the National Federation of Women Workers—was becoming increasingly difficult in relation to men working in the industry.\(^1\)

The Consolidated Wages Order of May, 1918, maintained the 6d. and 7½d. standard time rates, of which the women’s organisations complained, and definitely excluded women on aircraft woodwork and allied processes from the provisions of Part I, which gave the skilled man’s time-rate to women on work customarily done by fully skilled tradesmen. It met the Trade Union protests to some extent by providing (in Section 24) that "women or girls employed on piece work or premium bonus systems on work which in the establishment concerned was previously done by men" on such systems, should receive the same rates and allowances as men, and for payment in excess of the rates prescribed "where special circumstances exist."\(^2\)

In spite of these concessions the separate time rating remained, and this differentiation between the treatment of women in the aircraft and engineering industries was vehemently criticised by the representatives of the National Federation of Women Workers, both in print and in dealing with officials of the Department at meetings of the Women’s Trade Union Advisory Committee. It was pointed out that the introduction of women at special rates to do aeroplane work by simplified processes previously done experimentally by skilled men, offered an "ideal field for testing possible sex antagonism"; that "no definite pledge of restoration had been given by the Government in this case," and that a strong organisation of women as well as of men engaged in the industry was desirable so that employers might know with whom to negotiate in the "inevitable difficulties" after the War.\(^3\) The protests of the wood-working unions were equally strong, and a demand was made in May, 1918, by the National Aircraft Committee for a minimum probationary rate of 10d. an hour for all women employed on woodwork and allied processes on aircraft, and for men’s full time rates on completion of the probationary period.

The Department, however, adhered to the view that the wages of women on aircraft must be regulated in harmony with those of other

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1 The arguments produced at the hearing of this Coventry case, on 16 November, 1917, reproduced all those with which the Special Tribunal had become familiar in dealing with the engineering trade. Almost all the work now done by women at the aircraft factory of the motor company, against which proceedings were taken by the Coventry Aircraft Committee, had up to the early months of 1915 been done by skilled men, brought there from the carriage-building department, and put on to doping, varnishing and woodwork processes. Later, girls had replaced these skilled coachbuilders and painters in the aircraft works, but the trade union representatives claimed that they were still entitled to the coachbuilders’ standard rates. "We are not concerned," said one of their officials, "whether these girls could paint coaches, we are saying that the point is that it was found necessary to take away men from coachpainting in order to perform the particular work they are now engaged in. As in engineering, specialisation has come into the industry to the advantage of someone or other, certainly to the advantage of production."

2 There were other minor changes. The different time ratings for time and piece workers disappeared, but remained (at 5½d. an hour) for those on premium bonus. Piece rates (as in the new "women’s work") regulations were to produce at least a quarter, not a third, more than time rates. Girls might undertake machine work, but only with the sanction of the Department.

3 L.R. 4007.
women munition workers, and that the aircraft industry was not comparable with engineering; the employment of skilled men before 1915 on work now given to women, was due to the experimental character of the industry then, and could not be taken to establish rates that must be observed now that it had become a manufacturing industry producing standardised articles by repetition methods. In this view they were on the whole supported by the Special Arbitration Tribunal, who were asked to advise on 29 August, 1918; the Tribunal, however, recommended that a restricted class of women—those engaged on certain finishing operations in the making of spars, the erection and trueing up of planes and fuselage, and the making of propellers—should be paid the time rate of the craftsmen whose work they undertook. No action had been taken on these recommendations when the Armistice checked the production of aircraft.

II. Other Woodwork.

During the year 1916 complaints periodically reached the Ministry as to the underpayment of other women engaged on woodworking, such as those who were said to be making ammunition boxes at 2½d. and 3d. an hour. The work varied very much in its character, ranging from nailing together sawn lengths of wood for rough packing cases, to much more skilled operations akin to cabinet-making, such as making cordite trays, or teak boxes for the Admiralty. Woodwork was one of the trades the proposed inclusion of which under the “women’s work” Order (No. 447) was referred to the Special Tribunal in the autumn of 1916. It was excluded from the revised edition of that Order in January, but in February, 1917, the Tribunal issued the following recommendations:—Time rates for women and girls to be from 4½d. to 2½d. for time workers, and 4d. to 2d. (according to age) for piece workers, “those on time on machine processes, or work requiring special ability or in processes of a specially laborious and responsible nature to be paid according to work and ability.” On April 16, however, a simpler “interim” order was issued, laying down a flat rate of 6d. an hour as the minimum for women in such work. This rate did not satisfy some at least of the Trade Unions concerned, and in December they announced their intention of securing 10d. an hour as the minimum wage for skilled woodwork processes.

These workers gained under the Consolidated Order of May, 1918, by a provision with regard to piece rates similar to that which applied to the aircraft workers (Section 18), and by an elastic stipulation (Section 16) that machine workers should be paid, as the Tribunal had recommended, above the minimum rate, “according to the nature of the work and their ability.” The standard rates for those not on machine work remained 6d. an hour, with 5d. an hour during the first eight weeks’ work.

This Order was applied to all firms known to be engaged in making ammunition boxes. It had been difficult to secure payment of the standard rates laid down in the Order issued in the previous year, because the work was done by widely scattered firms, sometimes by small builders in country towns, who were not controlled under the

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1 L.R. 142/128.
Munitions Act. Special steps were, however, taken in the late autumn of 1917 to ensure that the terms of the Orders were observed by all firms employed on Government contracts.

III. Metal Work for Aircraft.

The introduction of women into the sheet metal trade for aero-plane parts had progressed far enough in 1918 to bring up the familiar problem of wage regulation for settlement. A special section of the Consolidated Order therefore prescribed standard rates for them as follows:

(1) Women employed "wholly or mainly on hand processes in the beating of metal to shape from the plain sheet," were to be paid at the skilled man's rate, with the deductions sanctioned for setting up and during probation by the series of Orders which, since the issue of L.2, had provided for women employed on other forms of men's munition work. This applied whether women were performing the skilled man's work as a whole or, as was probable, in part, except that in certain specified processes, such as "the making of straight folds, straight bends and straight flanges," a lower rate of 7d. an hour, rising in eight weeks to 8d. an hour, was prescribed. On systems of payment by results, women were to receive the same piece work prices and time allowances as men.

Dilution had been vigorously resisted in the sheet metal trade, and the introduction of women was proportionately safeguarded. ¹

(2) Women employed either on time or piece work on machine processes (which had been to a great extent developed since the War) were to be paid at 5½d. an hour, with 4½d. as the time basis of premium bonus workers, according to the scale laid down in the "women's work" Orders.

The system of payment laid down for this group of trades stands midway between the "men's work" and "women's work" wages Orders. The employment of women had hardly existed in them before the War, while the methods of production in them changed so rapidly that pre-war conditions for men's work hardly gave a standard on which to settle the payment for woman's labour. The problems belonging to the rapid sub-division of processes and to the position of the specialist on certain of these processes, appeared in specially marked form in these trades, complicated by a set of industrial problems quite distinct from those of the engineering trades or indeed from "munitions" work as such. On the other hand, some of the operations involved were admittedly of the simplest kind of unskilled work, in no way above the level of that performed in many trades by women and girls before the War. The statutory regulations issued for wages in these trades therefore represented to some extent a compromise between the two series of Orders described in previous chapters.

¹ Cf. Tribunal award, November, 1917, of the skilled workman's rates for women (less any deduction for probation and supervision) in the case of the Scottish Sheet Metal Workers' and Braziers' Society and W. Harvie & Co.
CHAPTER VIII.

RATES AND EARNINGS.

The well-paid munitions girl has been a frequent subject of discussion in the press and elsewhere. Some measurements of her opulence are given below.

I. Statutory Rates.

The following tables (I. and II.) summarise the rates of payment—many of them previously quoted—guaranteed under Statutory Order to the women and girls making munitions, i.e. to those employed by firms which were subject to the Leaving Certificate regulations and had been scheduled by the Ministry or—after the Amendment Act of 1917—which were similar to firms already so scheduled. The proportion of munition workers so covered was estimated by the Department at 96 per cent, of the whole number employed on work for the Ministry. The period taken for this summary is December, 1917. In the second column is given the weekly wage for unskilled workers, according to the current Statutory rate and bonus. This is calculated on a 48-hour working week, the lowest weekly working period commonly provided under the three-shift system or in any Government Establishment. The recognised hours of work were occasionally less than 48 per week, but were normally considerably more, varying according to firm and industry, before the calculation of overtime began, and the average "unskilled" time worker therefore earned, apart from extra allowances for night work or overtime, more than the amounts given in column 2. The 48 hour basis, however, is taken for convenience.

II. Estimates of Earnings.

Tables I and II give only the rates payable by Statutory Order to women and girls on munition work. They represent, therefore, the normal wages due, at least to time workers, since, despite suggestions to the contrary, the Wages Orders laid down standard and not only minimum rates. Calculations of the earnings, however, as distinct from the Statutory rates of munition workers are complicated by various factors; by variation in the working week; by the variations of piece work rates and earnings and by the alteration from piece rates to "guaranteed" time rates; by the payment of three-quarter time rates when no work was available, owing to break down in machinery, non-arrival of material, or air-raids; by the complexities of premium bonus systems, with varying basis times and methods of calculation; by extra allowances at time and a quarter, time and a half and double time rates for overtime, night-shift and Sunday work; by higher rates permitted under "special circumstances;" by time-keeping and other bonuses sanctioned and unsanctioned.
### TABLE

**Rates of Women Munition Workers**

<table>
<thead>
<tr>
<th>Unskilled Work.</th>
<th>Hourly Rates</th>
<th>Weekly Rate (48 hours)</th>
<th>Piecework or Premium Bonus Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Men's Work&quot;</td>
<td>6d.</td>
<td>24s., plus 2s. 6d. bonus</td>
<td>Those earned by men in the same operation plus 2s. 6d. bonus. Time rate wages guaranteed as in cols. 1 and 2.</td>
</tr>
<tr>
<td>&quot;Women's Work&quot;</td>
<td>5½d.</td>
<td>22s., plus 2s. 6d. bonus</td>
<td>Time rate of 4½d. per hour guaranteed. Piece rates or premium bonus to yield at least 33½% above guaranteed time rate, i.e., at least 25s. 4d., plus 2s. 6d. bonus.</td>
</tr>
<tr>
<td>&quot;Women's Work in low-paid areas.&quot;</td>
<td>5½d.</td>
<td></td>
<td>As above, except that guaranteed time rate only 4½d.</td>
</tr>
<tr>
<td>Aircraft</td>
<td>7½d. for machine processes, 6½d. and 6d. for other work</td>
<td>30s. 28s. 24s.</td>
<td>At least 33½% above time rates, i.e., 40s. to 32s., plus 2s. 6d. &quot;The appropriate time rate,&quot; 7½d. on machine processes, 5½d. on others, guaranteed.</td>
</tr>
<tr>
<td>Woodwork</td>
<td>6d. (Minimum)</td>
<td>24s., plus 2s. 6d. bonus</td>
<td></td>
</tr>
</tbody>
</table>
I.

UNDER STATUTORY ORDER (DECEMBER, 1917).

<table>
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<tbody>
<tr>
<td>Hourly Rates.</td>
<td>Piece or Time Rates.</td>
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<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

"Special Rates" recognised by this date as from 6½d. to 8d. an hour, plus 2s. 6d. bonus.

4d. an hour higher rates to workers in dangerous areas; also in certain processes if sanctioned by the Ministry. Lower rates payable by special sanction to warehouse workers.

(a) Skilled man's time and piece rates (b) if employed "on part or portion only" of fully-skilled tradesman's work the same rates, less 10% for supervision.

Same as men's for skilled workers; for other workers calculated in same ratio to normal rates as in case of men, but based on women's statutory time earnings.

According to the custom of the establishment, trade or district.

For women on part of a skilled man's work, unskilled workers' rates (cols. 1 and 2) at start, rising in 13 weeks to fully skilled rates.

As paid to men, or, where no definite custom at time-and-a-quarter for first two hours, then time-and-a-half for overtime, double rates for Sunday work.

1 month probation permitted at ½d. per hour below statutory rates.

4 weeks at 5½d. and 4 weeks at 6½d. for machine workers: 8 weeks at 5d. for others.
### TABLE

#### Rates of Girl Munition Workers

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>&quot;Men's Work&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17</td>
<td>5½d.</td>
<td>20s.</td>
<td>Those earned by men in the same process.</td>
</tr>
<tr>
<td>&quot;  &quot; 16</td>
<td>4½d.</td>
<td>18s.</td>
<td>Less 10% at 17</td>
</tr>
<tr>
<td>&quot;  &quot; 15</td>
<td>4d.</td>
<td>16s.</td>
<td>Less 20% at 16</td>
</tr>
<tr>
<td>Under 15</td>
<td>3½d.</td>
<td>14s.</td>
<td>Less 30% under 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Weekly wage as in col. 2, payable for working week of less than 48 hours.</strong></td>
</tr>
<tr>
<td>&quot;Women's Work&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17</td>
<td>4½d.</td>
<td>18s.</td>
<td>Time rate guaranteed at 3½d., 3d., 2½d. and 2d. an hour, according to age.</td>
</tr>
<tr>
<td>&quot;  &quot; 16</td>
<td>3½d.</td>
<td>14s.</td>
<td>Piece rates and premium bonus to yield at least 33½% above time rates. Plus 1s. 3d. bonus.</td>
</tr>
<tr>
<td>&quot;  &quot; 15</td>
<td>3d.</td>
<td>12s.</td>
<td></td>
</tr>
<tr>
<td>Under 15</td>
<td>2½d.</td>
<td>10s.</td>
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<tr>
<td></td>
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<td></td>
<td><strong>Plus 1s. 3d. bonus.</strong></td>
</tr>
<tr>
<td>In low paid areas</td>
<td>All rates ¼d. per hour lower.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aircraft.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17</td>
<td>5½d. &amp; 5d.</td>
<td>22s.; 20s.</td>
<td>Time rates guaranteed at 4½d., 3½d., 3d., 2½d. Piece rates and premium bonus to yield at least 33½% above time wages. Plus 1s. 3d. bonus.</td>
</tr>
<tr>
<td>&quot;  &quot; 16</td>
<td>4½d. &amp; 4d.</td>
<td>18s.; 16s.</td>
<td></td>
</tr>
<tr>
<td>&quot;  &quot; 15</td>
<td>4d. &amp; 3½d.</td>
<td>16s.; 14s.</td>
<td></td>
</tr>
<tr>
<td>&quot;  &quot; 14</td>
<td>3½d. &amp; 3d.</td>
<td>14s.; 12s.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Plus 1s. 3d. bonus.</strong></td>
</tr>
<tr>
<td><strong>Woodwork.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17</td>
<td>5d. (minimum)</td>
<td>20s.</td>
<td></td>
</tr>
<tr>
<td>&quot;  &quot; 16</td>
<td>4d.</td>
<td>16s.</td>
<td></td>
</tr>
<tr>
<td>&quot;  &quot; 15</td>
<td>3½d.</td>
<td>14s.</td>
<td></td>
</tr>
<tr>
<td>Under 15</td>
<td>3d.</td>
<td>12s.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Plus 1s. 3d. bonus.</strong></td>
</tr>
</tbody>
</table>

N.B.—The above wages were increased for time and piece-workers by 3s. 6d. a week for women and after December 15th, 1917. A further advance of 5s. to
II.

**UNDER STATUTORY ORDER (DECEMBER, 1917).**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As in Women's Orders.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>As in Women's Orders.</td>
<td>Probation of 2 months at ages 16-18, 1 month below 16, at ½d. an hour below normal wages.</td>
</tr>
<tr>
<td>½d. an hour higher rates to workers in dangerous areas. Lower rates payable by special sanction to warehouse workers.</td>
<td>As in Women's Orders.</td>
<td>Probation of 2 months at 4d. an hour, 3d. an hour, 2½d. an hour, 2d. an hour, according to age.</td>
<td></td>
</tr>
</tbody>
</table>

1s. 9d. for girls, under Statutory Rules and Orders 31 of 1918, taking effect from the first full pay-day women and 2s. 6d. to girls was made in August, 1918.
The following extract\(^1\) for the week ending June 30th, 1917, from the wage book of a firm employing some 12,000 women workers illustrates the difference to the individual between rates and earnings emphasized on page 95.

**Punch Grinders in Fitting Shop (Standing Wage 6d. an hour).**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>60</td>
<td>£ 1 10 0</td>
<td>18(\frac{3}{4})</td>
<td>9 (\frac{4}{5})</td>
<td>1 13 (\frac{5}{2})</td>
<td>1 6</td>
<td>3 14 4</td>
</tr>
<tr>
<td>B.</td>
<td>55</td>
<td>1 7 6</td>
<td>3</td>
<td>14 5</td>
<td>1 6</td>
<td>2 3 8(\frac{1}{2})</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>60</td>
<td>1 10 0</td>
<td>18(\frac{3}{4})</td>
<td>9 (\frac{4}{5})</td>
<td>19 0</td>
<td>1 6</td>
<td>2 19 10(\frac{1}{2})</td>
</tr>
<tr>
<td>D.</td>
<td>60</td>
<td>1 10 0</td>
<td>18(\frac{3}{4})</td>
<td>9 (\frac{4}{5})</td>
<td>1 3 10</td>
<td>1 6</td>
<td>3 4 8(\frac{1}{2})</td>
</tr>
<tr>
<td>E.</td>
<td>45</td>
<td>1 2 6</td>
<td>—</td>
<td>—</td>
<td>15 1</td>
<td>—</td>
<td>1 17 7</td>
</tr>
<tr>
<td>F.</td>
<td>60</td>
<td>1 10 0</td>
<td>18(\frac{3}{4})</td>
<td>9 (\frac{4}{5})</td>
<td>1 6 0</td>
<td>1 6</td>
<td>3 6 10(\frac{1}{2})</td>
</tr>
</tbody>
</table>

**Capstan Hands.**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>55</td>
<td>£ 1 7 6</td>
<td>—</td>
<td>—</td>
<td>19 5</td>
<td>—</td>
<td>£ 6 11</td>
</tr>
<tr>
<td>B.</td>
<td>60</td>
<td>1 10 0</td>
<td>15</td>
<td>7 6</td>
<td>1 4 0</td>
<td>—</td>
<td>3 1 6</td>
</tr>
<tr>
<td>C.</td>
<td>40</td>
<td>1 0 0</td>
<td>—</td>
<td>—</td>
<td>4 6</td>
<td>—</td>
<td>1 4 6</td>
</tr>
<tr>
<td>D.</td>
<td>48(\frac{1}{2})</td>
<td>1 4 3</td>
<td>—</td>
<td>—</td>
<td>16 0</td>
<td>—</td>
<td>2 0 3</td>
</tr>
</tbody>
</table>

Another firm's returns of the methods of payment illustrates the possible difference between a prescribed time rate and actual earnings as a result of war bonuses. The firm was a firm of Hollow-ware Manufacturers employing 50 women and 79 girls at the rates fixed by the Hollow-ware Trade Board on July 6th, 1914, with additions.

**Workers over 18:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>13 6</td>
<td>13 6</td>
</tr>
<tr>
<td>10% Bonus</td>
<td>1 4</td>
<td>8</td>
</tr>
<tr>
<td>War Bonus</td>
<td>2 6</td>
<td></td>
</tr>
</tbody>
</table>

14 2

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16(\frac{3}{4})% Bonus</td>
<td>2 3</td>
<td>2 3</td>
</tr>
<tr>
<td>War Bonus</td>
<td>2 6</td>
<td></td>
</tr>
</tbody>
</table>

17 4

18 11

No wholly representative statistics as to actual earnings of women piece workers or total receipts of time workers are available. Returns have however been obtained periodically from the National Factories.

\(^1\) C.E. 539/4.
Their wage rates cover a very large number of women munition workers, and are fairly representative of those paid and earned in non-government factories engaged on similar work. Samples are therefore given in some detail.

### TABLE III.

**Average Rates and Earnings of Women in**

(a) National Projectile Factories.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>s. d.</td>
<td>s. d.</td>
<td>s. d.</td>
<td>s. d.</td>
<td>s. d.</td>
<td>s. d.</td>
</tr>
<tr>
<td>Forewomen</td>
<td>—</td>
<td>49 4</td>
<td>41 9</td>
<td>49 4</td>
<td>49 8</td>
<td>64 2</td>
</tr>
<tr>
<td>Women in Tool Room</td>
<td>—</td>
<td>27 2</td>
<td>27 6</td>
<td>41 6</td>
<td>31 1</td>
<td>39 5</td>
</tr>
<tr>
<td>Machine Operators</td>
<td>30 9</td>
<td>39 10</td>
<td>26 1</td>
<td>37 4</td>
<td>34 1</td>
<td>62 5</td>
</tr>
<tr>
<td>Labourers</td>
<td>—</td>
<td>28 6</td>
<td>25 3</td>
<td>29 11</td>
<td>34 1</td>
<td>46 3</td>
</tr>
<tr>
<td>Viewers</td>
<td>—</td>
<td>32 6</td>
<td>27 11</td>
<td>34 4</td>
<td>35 8</td>
<td>45 2</td>
</tr>
<tr>
<td>Total (including certain workers not detailed above)</td>
<td>—</td>
<td>—</td>
<td>26 6</td>
<td>36 0</td>
<td>34 8</td>
<td>56 8</td>
</tr>
</tbody>
</table>

**Numbers covered by above Averages.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forewomen</td>
<td>88</td>
<td>43 3</td>
<td>38 5</td>
<td>45 1</td>
<td>42 1</td>
<td>50 10</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Women in Tool Room</td>
<td>4 ditto</td>
<td>35 2</td>
<td>32 6</td>
<td>39 1</td>
<td>32 2</td>
<td>34 9</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>Machine Operators</td>
<td>13 ditto</td>
<td>33 11</td>
<td>29 10</td>
<td>38 3</td>
<td>32 1</td>
<td>42 7</td>
<td>7,576</td>
<td></td>
</tr>
<tr>
<td>Labourers</td>
<td>10 ditto</td>
<td>29 1</td>
<td>27 9</td>
<td>35 6</td>
<td>31 4</td>
<td>37 9</td>
<td>1,315</td>
<td></td>
</tr>
<tr>
<td>Viewers</td>
<td>12 ditto</td>
<td>31 10</td>
<td>30 10</td>
<td>38 3</td>
<td>35 2</td>
<td>43 5</td>
<td>1,193</td>
<td></td>
</tr>
<tr>
<td>Total (including certain workers not detailed above)</td>
<td>127</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.**—The total number of females employed in National Projectile Factories in April, 1918, was 20,667.

(b) National Shell Factories.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forewomen</td>
<td>—</td>
<td>43 3</td>
<td>38 5</td>
<td>45 1</td>
<td>42 1</td>
<td>50 10</td>
<td>62</td>
</tr>
<tr>
<td>Women in Tool Room</td>
<td>—</td>
<td>35 2</td>
<td>32 6</td>
<td>39 1</td>
<td>32 2</td>
<td>34 9</td>
<td>127</td>
</tr>
<tr>
<td>Machine Operators</td>
<td>25 8</td>
<td>33 11</td>
<td>29 10</td>
<td>38 3</td>
<td>32 1</td>
<td>42 7</td>
<td>7,576</td>
</tr>
<tr>
<td>Labourers</td>
<td>—</td>
<td>29 1</td>
<td>27 9</td>
<td>35 6</td>
<td>31 4</td>
<td>37 9</td>
<td>1,315</td>
</tr>
<tr>
<td>Viewers</td>
<td>—</td>
<td>31 10</td>
<td>30 10</td>
<td>38 3</td>
<td>35 2</td>
<td>43 5</td>
<td>1,193</td>
</tr>
<tr>
<td>Total (including certain workers not detailed above)</td>
<td>127</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.**—The return for September, 1917, include 10,487 females. The total number of females employed in National Shell Factories in April, 1918, was 12,939.
TABLE III—continued.

(c) National Explosives Factories.

<table>
<thead>
<tr>
<th>July—August, 1918.</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>Rate.</td>
<td>Earnings.</td>
</tr>
<tr>
<td>s. d.</td>
<td>s. d.</td>
<td></td>
</tr>
<tr>
<td>Forewomen—Process</td>
<td>31</td>
<td>45 1</td>
</tr>
<tr>
<td>Maintenance</td>
<td>1</td>
<td>42 6</td>
</tr>
<tr>
<td>Transport Yard</td>
<td>9</td>
<td>40 3 ½</td>
</tr>
<tr>
<td>General</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charge Hands—Process</td>
<td>637</td>
<td>46 10</td>
</tr>
<tr>
<td>Transport Yard</td>
<td>51</td>
<td>35 8 ½</td>
</tr>
<tr>
<td>Power</td>
<td>10</td>
<td>34 11 ½</td>
</tr>
<tr>
<td>Process Hands</td>
<td>9,919</td>
<td>30 11</td>
</tr>
<tr>
<td>Labourers—Maintenance</td>
<td>256</td>
<td>30 5</td>
</tr>
<tr>
<td>Transport Yard</td>
<td>1,294</td>
<td>30 0 ½</td>
</tr>
<tr>
<td>Power</td>
<td>235</td>
<td>35 6</td>
</tr>
</tbody>
</table>

Note (1).—There were 12,448 females employed in National Explosives Factories.

Note (2).—The following earlier examples are given for purposes of comparison.

At Gretna in August, 1917, the wages for a 54-hour week ranged from 31s. 6d.-34s. 6d. in the Gun Cotton section to 39s. in the Nitrating House; 31s. 6d. for general workers on danger processes on Cordite; 32s, 6d.-34s. 6d. to those on acids. At Pembrey, earnings, fixed on the basis of an award by the special Tribunal a year before, were from 6½d. to 7½d. an hour; 30s. 2d. to 36s. 3d. for a week of 53 hours paid as 58 hours, with the 2s. 6d. war bonus in addition. At Colnbrook and Queen’s Ferry the weekly earnings varied between 25s. 8d. and 30s., with 2s. 6d. and 5s. bonus.

(d) National Filling Factories.

<table>
<thead>
<tr>
<th>July, 1918.</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>Rates.</td>
<td>Earnings.</td>
</tr>
<tr>
<td>s. d.</td>
<td>s. d.</td>
<td></td>
</tr>
<tr>
<td>Forewomen</td>
<td>165</td>
<td>50 5</td>
</tr>
<tr>
<td>Assistant Forewomen</td>
<td>195</td>
<td>47 6</td>
</tr>
<tr>
<td>Charge Hands</td>
<td>1,749</td>
<td>37 8</td>
</tr>
<tr>
<td>Filling Operatives</td>
<td>27,970</td>
<td>32 7</td>
</tr>
<tr>
<td>Labourers</td>
<td>5,156</td>
<td>32 5 ½</td>
</tr>
</tbody>
</table>

Note.—According to returns from 14 National Filling Factories in the period May-July, 1917 (i.e., between the two general advances in women's wages) the average earnings of Filling Operatives were 29s. on the day shift and 32s. 6d. on the night shift.

CONTROLLED ESTABLISHMENTS.

More varied returns covering a very much wider variety of trades were obtained in April to June, 1917, from a circular sent out to all Controlled Establishments requiring them to report on the average wages and earnings of their women employees, according to the Statutory Orders then in force. The Schedule of questions was unfortunately not very clearly worded, and despite the assistance of the Chief Investigation Officers, through whom it
was despatched to firms, it was not always clearly or accurately filled in. It served incidentally a useful administrative purpose, since those firms whose returns, on scrutiny at Whitehall Gardens, showed that the Statutory Orders were not being observed were required by the Department to comply with them in future. Valuable general information as to earnings can be gathered from them, though it is impossible to classify the returns accurately by trade groups or to distinguish clearly between piece and time earnings.

(a) In the North East Coast Area, out of some 150 firms circularised about 100 were employing women on "men's work." (The remainder were iron foundries and other works engaged in heavy forms of production in which dilution had so far been impossible.) Only five of these firms, by their own account, were employing women on skilled men's work—seventy-one women out of 2,500 employed in all. The average earnings per head of the semi-skilled and unskilled workers (over a large range of occupations) was 28s. 2d., whereas the corresponding average for the few skilled workers was 35s. The small number of women reported as on skilled work were engaged as follows:—

<table>
<thead>
<tr>
<th>Trade</th>
<th>Number</th>
<th>Hours</th>
<th>Time Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>8</td>
<td>32</td>
<td>8 s. 0 d.</td>
</tr>
<tr>
<td>Wire Rope</td>
<td>11</td>
<td>30</td>
<td>11 s. 0 d.</td>
</tr>
<tr>
<td>Hollow-ware</td>
<td>5</td>
<td>25</td>
<td>5 s. 0 d.</td>
</tr>
<tr>
<td>Chemical Works</td>
<td>35</td>
<td>35</td>
<td>35 s. 0 d.</td>
</tr>
<tr>
<td>Forge</td>
<td>12</td>
<td>44</td>
<td>12 s. 0 d.</td>
</tr>
</tbody>
</table>

(b) In the Yorkshire Munitions Area, a district including Sheffield, Leeds, Leicester, Nottingham, where women's work in the munition trades had been negligible before the war, two thirds of the women and girls employed were described as being on "men's work" (20,319 out of 30,442). Only 422 women and 5 girls were reported by their employers as being on skilled work, at average (adult) weekly earnings of £2 6s. 2d. for piece work, £2 1s. 3d. time work. The earnings of the women replacing unskilled and semi-skilled men averaged £1 18s. on piece and £1 8s. 7d. on time, as compared with £1 10s. 10d. and £1 6s. 1d. for women on "men's work," and £1 4s. 9d. and £1 3s. 9d. approximately for women on private work and "unregulated" munitions work.

(c) In the Bristol Area, covering the south-western district, in which the pre-war level of wages as a whole was low, and including Devon and Cornwall and firms in Southampton, Bournemouth and the industrial villages in the Stroud Valley of Gloucestershire, 5,037 women and girls, out of a total of 9,085 reported on, were engaged on "men's work," 76 women and 11 girls replacing skilled men. Their piece earnings were slightly lower than those in the preceding group, but the time earnings, which followed closely the standard laid down in the Orders, were similar in both districts.

(d) In the Birmingham and Midlands Area, a district in which women had long worked in many of the munition trades before they were called "munitions," some 220 munition firms out of 670 circularised were employing women and girls on "men's work." Out of

1 These averages are based on a slightly different schedule of returns from that analysed on pp. 106-7.
over 11,000 women and girls so employed, only 671 were reported (by 39 out of 220 firms) to be engaged on skilled men’s work. 9,758 women and 571 girls (the small number of the latter is noteworthy) were returned in the semi-skilled and unskilled class. At the same time 67,693 women and girls were reported by these firms as being occupied in “women’s work” on the production of munitions.

A table (IV.) is appended1 illustrating (a) the incidence of the different wages orders, and the numbers of women substitutes for men employed by the firms reporting; and (b) the average wages earned in these groups. The average, it must be explained, is an average of averages, being calculated on the average earnings returned by each firm as obtained by the women and girls employed by them under each heading; no more weight is given to a large than to a small firm in making up the figure. Moreover, both sets of figures must be received with some reservation since the definition of “skilled” work is admittedly somewhat arbitrary, and as explained above, the distinction between time and piece earnings was not always clearly made. They illustrate, however, the relative proportion of women on “men’s” and on “women’s” work in these districts—a distinction important administratively and socially—and the higher trend of the earnings of those on “men’s” work. The small number of the girls under 18 employed by these munition firms, especially on “men’s work” is noteworthy.

Some further returns, selected at random from those of firms employing large numbers of women in both categories, are given2 to illustrate the operation of the Wages Orders on the wages books of individual establishments (Table V). The firms are all in the Birmingham and Midlands Area, except Nos. 4, 11, 22, 23, 24, 25, and 28, which are in the Yorkshire Munitions Area, and 26 and 27 in the London Area.

Statistics of average earnings are notoriously unsatisfactory, as illustrations of the position of the individual worker, and the averages quoted above inevitably conceal the exceptional cases of high and of low earnings which have been said periodically to be typical of the over or underpayment of the woman munition worker. Such criticisms could have been met statistically only by returns from employers, grouping much more precisely the weekly earnings received. The returns available are, as has been explained, of only limited value, but indicate that on the whole the statutory rates were adhered to pretty closely as a standard for the payment of women in controlled establishments and National Factories, although in certain forms of piece work, e.g., in shell and fuse making, the weekly wages and earnings were much in excess of the minimum prescribed.

The instances of low wages to munition workers quoted periodically were drawn almost invariably from firms to which Orders had deliberately not been applied, or which had ignored these Orders, or were experimenting on rates before the period.

In at least three cases of underpayment about which questions were asked in the House of Commons (Nobel’s, Perranporth, at the end of 1915; Pirelli’s, Southampton, in 1915 and 1916; and the North British

RUBBER WORKS, early in 1917), it was shown on enquiry either that
these rates were low because the firm had only lately started work in
a low-rated neighbourhood, or that the firm had, inadvertently or
otherwise, omitted to apply the Ministry's Wages Orders.

### III. Comparison with pre-War Earnings.

A comparison with women's earnings before the war can only
be of limited application, because conditions of women's work
within the munition trades, and the personnel among the women
actually performing such work, have changed so greatly during
the three and a half years of the war. On the wage of 12s. 8d.
a week, estimated by the Census on Wages of 1906 as the average for
women in the metal trades, or on the more detailed averages quoted
below, the increase of earnings would be over 100% among
the lowest paid munition workers in these trades, even allowing for
the slight advance in wages between 1906 and 1914.

A more precise indication of the advance in earnings for a normal
week is given in Table VI, 1 which gives some of the results of an enquiry
into earnings in the Midlands Light Metal Trades, some of which were
affected by the Munitions Wages Orders, while others moved sympa-
thetically, made in 1917 and 1918 by the Trade Boards Office of the
Ministry of Labour.

The National Employers' Federation in a deputation to the Special
Arbitration Tribunal in July, 1917, submitted the following statement
as to the earnings of workpeople employed by its members in the
Midlands in 1914 and 1917:

<table>
<thead>
<tr>
<th>Week</th>
<th>Number</th>
<th>Gross Earnings</th>
<th>Average Earnings</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Week in May, 1914</td>
<td>All Workers</td>
<td>56,800</td>
<td>76,500</td>
<td>6 9</td>
</tr>
<tr>
<td>2nd Week in May, 1914</td>
<td>Men &amp; Boys (Piecework)</td>
<td>14,400</td>
<td>23,800</td>
<td>1 13 3</td>
</tr>
<tr>
<td>3rd Week in May, 1914</td>
<td>Women &amp; Girls (Piecework)</td>
<td>2,400</td>
<td>1,600</td>
<td>12 7</td>
</tr>
</tbody>
</table>

It was stated by the Federation that these figures represented
accurately the sums paid by their members, but that the sums repre-
sented comparative earnings, not wage rates, and included extra
payments for overtime and night work in the second period.

The "Earnings and Hours" enquiry of the Board of Trade
(Cd. 5814 of 1911) gave the following average full-time weekly earnings
in September, 1906, of women in some of the trades contributing
to the supply of "munitions" since August, 1914. They may be
compared with the munitions workers' earnings quoted above.

<table>
<thead>
<tr>
<th>Trade</th>
<th>Women</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and Boilermaking</td>
<td>13 1</td>
<td>8 2</td>
</tr>
<tr>
<td>Light Iron Castings, Stoves and Grates</td>
<td>10 0</td>
<td>7 5</td>
</tr>
<tr>
<td>Wire drawing and Metal working</td>
<td>13 2</td>
<td>7 3</td>
</tr>
<tr>
<td>Jewellery</td>
<td>13 6</td>
<td>6 10</td>
</tr>
<tr>
<td>Edge Tools, Spades, Files</td>
<td>11 7</td>
<td>6 10</td>
</tr>
<tr>
<td>Cycle making and repairing</td>
<td>14 4</td>
<td>9 1</td>
</tr>
<tr>
<td>Nails, Screws, Nuts</td>
<td>11 2</td>
<td>7 6</td>
</tr>
<tr>
<td>Scientific Instruments</td>
<td>12 8</td>
<td>6 9</td>
</tr>
<tr>
<td>Average for Metal Trades</td>
<td>12 8</td>
<td>7 4</td>
</tr>
</tbody>
</table>

1 See p. 110.
### TABLE
**Average Weekly Earnings of Women in Controlled April and**

<table>
<thead>
<tr>
<th>Area</th>
<th>On skilled men's work.</th>
<th>Replacing semi-skilled or unskilled men.</th>
<th>On woodwork for aircraft (C.)</th>
<th>On work not recognised as men's work (D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yorkshire</strong></td>
<td>£</td>
<td>s. d.</td>
<td>£</td>
<td>s. d.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td><strong>Bristol</strong></td>
<td>£</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><em>(One firm only)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Birmingham</strong></td>
<td>£</td>
<td>1</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td><strong>Newcastle</strong></td>
<td>£</td>
<td>1</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

### Number of Women

<table>
<thead>
<tr>
<th>Area and No. of Firms.</th>
<th>On skilled men's work.</th>
<th>Replacing semi-skilled or unskilled men.</th>
<th>On woodwork for aircraft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yorkshire (377)</td>
<td>422</td>
<td>5</td>
<td>19,205</td>
</tr>
<tr>
<td>Bristol (94)</td>
<td>76</td>
<td>11</td>
<td>4,497</td>
</tr>
<tr>
<td>Birmingham (670)</td>
<td>964</td>
<td>86</td>
<td>9,758</td>
</tr>
<tr>
<td>Newcastle (90)</td>
<td>158</td>
<td>57</td>
<td>2,512</td>
</tr>
</tbody>
</table>
IV.

Establishments in Four Munition Areas between June, 1917.

<table>
<thead>
<tr>
<th>On munition work where wages are not regulated (E.)</th>
<th>On private work (F.)</th>
<th>Average rate before June, 1916, (i.e., before Statutory Regulation).</th>
</tr>
</thead>
<tbody>
<tr>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
</tr>
<tr>
<td>149</td>
<td>1310</td>
<td>1410</td>
</tr>
<tr>
<td>131</td>
<td>105</td>
<td>194</td>
</tr>
<tr>
<td>1471</td>
<td>1110</td>
<td>137</td>
</tr>
<tr>
<td>149</td>
<td>130</td>
<td>1091</td>
</tr>
</tbody>
</table>

AND GIRLS EMPLOYED.

<table>
<thead>
<tr>
<th>On work not recognised as men's work.</th>
<th>On munition work where wages are not regulated.</th>
<th>On private work.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,422</td>
<td>2,875</td>
<td>558</td>
<td>120</td>
</tr>
<tr>
<td>2,436</td>
<td>573</td>
<td>436</td>
<td>102</td>
</tr>
<tr>
<td>46,807</td>
<td>11,839</td>
<td>2,125</td>
<td>1,095</td>
</tr>
<tr>
<td>2,190</td>
<td>548</td>
<td>221</td>
<td>138</td>
</tr>
</tbody>
</table>
### TABLE V.

**Average Earnings in Certain Controlled Establishments, April-June, 1917.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Steel Tube Manufacturers</td>
<td>161</td>
<td>110</td>
<td>25.0</td>
<td>30.0</td>
<td>69</td>
<td>16</td>
<td>26.6</td>
<td>36.6</td>
</tr>
<tr>
<td>2. Chemical</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>12</td>
<td>—</td>
<td>34.0</td>
<td>—</td>
</tr>
<tr>
<td>3. Electrical and Mechanical Engineers</td>
<td>16</td>
<td>5</td>
<td>27.6</td>
<td>55.0</td>
<td>26</td>
<td>5</td>
<td>27.0</td>
<td>34.0</td>
</tr>
<tr>
<td>4. Bombs, etc.</td>
<td>115</td>
<td>40</td>
<td>22.9</td>
<td>43.0</td>
<td>14</td>
<td>—</td>
<td>26.6</td>
<td>36.3</td>
</tr>
<tr>
<td>5. Tramways</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>116</td>
<td>—</td>
<td>29.0</td>
<td>—</td>
</tr>
<tr>
<td>6. (a) Rolling Mills</td>
<td>3,338</td>
<td>—</td>
<td>28.0</td>
<td>34.11</td>
<td>295</td>
<td>—</td>
<td>36.0</td>
<td>—</td>
</tr>
<tr>
<td>(b) Ammunition Loading</td>
<td>1,842</td>
<td>—</td>
<td>27.0</td>
<td>32.0</td>
<td>74</td>
<td>—</td>
<td>38.0</td>
<td>—</td>
</tr>
<tr>
<td>7. Motor Chains, Shell and Fuse Hole Plugs</td>
<td>193</td>
<td>94</td>
<td>27.7</td>
<td>29.5</td>
<td>25</td>
<td>—</td>
<td>—</td>
<td>44.5</td>
</tr>
<tr>
<td>8. Elec. Engineers, Shells, Primers, Mines</td>
<td>389</td>
<td>200</td>
<td>22.6</td>
<td>29.71</td>
<td>147</td>
<td>3</td>
<td>27.0</td>
<td>37.2</td>
</tr>
<tr>
<td>9. Iron Foundry</td>
<td>31</td>
<td>18</td>
<td>16.0 (19.0)</td>
<td>—</td>
<td>17</td>
<td>26</td>
<td>16.0 (18.0)</td>
<td>25.0</td>
</tr>
<tr>
<td>10. Engineering and Metal Work</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>39</td>
<td>1</td>
<td>—</td>
<td>45.6</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>148</td>
<td>3</td>
<td>—</td>
<td>39.10</td>
</tr>
<tr>
<td>11. Seed Crushing, etc.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>133</td>
<td>—</td>
<td>34.0</td>
<td>35.0</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>138</td>
<td>39</td>
<td>—</td>
<td>(Min. for 48 hours).</td>
</tr>
<tr>
<td>12. Engineers</td>
<td>690</td>
<td>724</td>
<td>35.0</td>
<td>39.6</td>
<td>84</td>
<td>—</td>
<td>—</td>
<td>28.6</td>
</tr>
</tbody>
</table>

**Note:**
- The figures represent average earnings in pounds, shillings, and pence for various industries and occupations during the specified period.
<table>
<thead>
<tr>
<th></th>
<th>Ch. VIII</th>
<th>RATES</th>
<th>EARNINGS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Cycle Works, engaged in Small Arms Ammunition</td>
<td>940</td>
<td>25 3</td>
<td>35 0</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1061</td>
<td>28 5</td>
<td>35 0</td>
<td>41 0</td>
</tr>
<tr>
<td>14. Tubes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. (a) Motors...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Woodwork</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Cycle and Motor Works</td>
<td>363</td>
<td>213</td>
<td>33 0</td>
<td>49 0</td>
</tr>
<tr>
<td>17. Motors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Nuts and Bolts</td>
<td>206</td>
<td>217</td>
<td>19 6</td>
<td>24 5</td>
</tr>
<tr>
<td>19. Fuses</td>
<td>1,589</td>
<td>16</td>
<td>35 0</td>
<td></td>
</tr>
<tr>
<td>20. Chains (Transmission)</td>
<td>609</td>
<td></td>
<td>29 0</td>
<td></td>
</tr>
<tr>
<td>21. Engineering (Ordnance Co.)</td>
<td>2,174</td>
<td>192</td>
<td>38 6</td>
<td></td>
</tr>
<tr>
<td>22. Shells</td>
<td>156</td>
<td></td>
<td>37 6</td>
<td>1,260</td>
</tr>
<tr>
<td></td>
<td>1,224</td>
<td></td>
<td>44 5</td>
<td>27 0</td>
</tr>
<tr>
<td>23. (a) Cycles and Ammunition</td>
<td>70</td>
<td>28 0</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>(b)</td>
<td>760</td>
<td>29 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Motors, Engines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Shells</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Small Arms</td>
<td>201</td>
<td></td>
<td>35 8</td>
<td></td>
</tr>
<tr>
<td>27. Engineering</td>
<td>785</td>
<td>22 0</td>
<td>29 0</td>
<td>1,712</td>
</tr>
<tr>
<td>28. Iron Founding, Shells</td>
<td>1,168</td>
<td>59</td>
<td>28 10</td>
<td>486</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>33 2</td>
<td></td>
</tr>
</tbody>
</table>

(Semi-skilled) 274 (Unskilled) 30 0
(Skilled) 31 (Unskilled) 27 32 6
(Per hour) 40 (Labourers) 91 6d. plus 2s. 6d. 32 0

### TABLE VI.

**Light Metals—Wages, 1914 and 1917 (end).**

**Weekly Earnings of Women (over 18) in Exempt Occupations.**

<table>
<thead>
<tr>
<th></th>
<th>Year</th>
<th>No. of Workers</th>
<th>Average No. of hours Worked</th>
<th>Average Weekly Earnings</th>
<th>Lower Quartile</th>
<th>Median</th>
<th>Upper Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolts, Nuts and Screws, Nails, Tacks and Rivets</td>
<td>1914</td>
<td>1,882</td>
<td>52(\frac{3}{4})</td>
<td>12 11</td>
<td>10 0</td>
<td>12 8(\frac{1}{2})</td>
<td>16 3</td>
</tr>
<tr>
<td></td>
<td>1917</td>
<td>718</td>
<td>52(\frac{3}{4})</td>
<td>24 8</td>
<td>18 9</td>
<td>25 3</td>
<td>29 9(\frac{1}{2})</td>
</tr>
<tr>
<td>Metal Smallware, including Steel Pens, Pins, Hooks, Eyes, and Metal Buttons</td>
<td>1914</td>
<td>3,247</td>
<td>51</td>
<td>12 1(\frac{1}{2})</td>
<td>9 7</td>
<td>11 10(\frac{1}{2})</td>
<td>14 5</td>
</tr>
<tr>
<td></td>
<td>1917</td>
<td>2,227</td>
<td>51(\frac{1}{4})</td>
<td>22 9</td>
<td>19 0</td>
<td>22 2</td>
<td>26 9</td>
</tr>
<tr>
<td>Cycles and Accessories</td>
<td>1914</td>
<td>960</td>
<td>52(\frac{3}{4})</td>
<td>14 9</td>
<td>11 5(\frac{1}{2})</td>
<td>14 3</td>
<td>17 0(\frac{1}{2})</td>
</tr>
<tr>
<td></td>
<td>1917</td>
<td>334</td>
<td>52(\frac{3}{4})</td>
<td>27 9</td>
<td>23 5(\frac{1}{2})</td>
<td>27 6</td>
<td>31 6(\frac{1}{2})</td>
</tr>
<tr>
<td>Needles, Fish-hooks and Fishing Tackle</td>
<td>1914</td>
<td>1,203</td>
<td>—</td>
<td>13 2</td>
<td>11 2</td>
<td>13 2</td>
<td>15 3</td>
</tr>
<tr>
<td></td>
<td>1917</td>
<td>456</td>
<td>50</td>
<td>26 4</td>
<td>25 1(\frac{1}{4})</td>
<td>27 6</td>
<td>29 1</td>
</tr>
<tr>
<td>All Groups</td>
<td>1914</td>
<td>7,292</td>
<td>51(\frac{3}{4})</td>
<td>12 9</td>
<td>10 2</td>
<td>12 11(\frac{1}{2})</td>
<td>15 9</td>
</tr>
<tr>
<td></td>
<td>1917</td>
<td>3,735</td>
<td>51(\frac{3}{4})</td>
<td>24 0</td>
<td>19 0</td>
<td>23 11(\frac{1}{2})</td>
<td>28 10</td>
</tr>
</tbody>
</table>
The earnings tabulated in the preceding pages in the Birmingham
district in the spring of 1917, may also be compared with those quoted
for 1908 in "Women's Work and Wages in Birmingham" (Cadbury,
Matheson and Shann). "In Birmingham for girls above 21, wages
move near 10s. per week, while an unskilled man's wage is 18s. to 20s.
at least. The following is an analysis of women's wages in the cycle
trade (largely diverted to munition work during the war):—For those
over 21 the average wage is 10s. 6d. Nearly 50% of these are married
women whose wages average 11s. Between 17 and 21, the average
wage is 9s. 2d. ; below 17, 7s. 1d. Wherever women replaced men, the
former always received a much lower wage—about 10s. to 12s. per
week. The wage that the man previously received gave no criterion
as to what the woman would get, though as a general statement,
approximately correct, we may say a woman would get from half
to one-third the wages of a man." (Pages 119, 121.) The following
earnings are quoted for "typical" ammunition workers:

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
<th>Average under 18</th>
<th>Average over 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartridge Case-maker</td>
<td>3 0</td>
<td>—</td>
<td>8 9</td>
</tr>
<tr>
<td>Cartridge Cutter-off</td>
<td>3 0</td>
<td>18 0</td>
<td>—</td>
</tr>
<tr>
<td>Warehouse Worker</td>
<td>8 0</td>
<td>13 4</td>
<td>6 10</td>
</tr>
<tr>
<td>Cartridge Metal Drawer</td>
<td>6 0</td>
<td>18 0</td>
<td>7 0</td>
</tr>
<tr>
<td>Examiner</td>
<td>8 6</td>
<td>13 7</td>
<td>—</td>
</tr>
<tr>
<td>Filling Cartridges</td>
<td>7 0</td>
<td>18 0</td>
<td>—</td>
</tr>
</tbody>
</table>

The Young Worker.

The rise in wages in the munition trades was specially noticeable
among quite young girls, both the beginners of 13 and 14 and the
girls of 18, classed for wage purposes as women. An effort was
made by the Engineering Employers' Federation in the autumn
of 1916 to postpone from 18 to 21, the age at which a munition
worker became a "woman." Many trades and individual firms
had, before the war, drawn up their scale of wages on the quite
comprehensible assumption that a woman's full earning power in
industry is not reached before she is 21. The lower limit of
age, however, remained the dividing line in regulating wages for
munitions purposes. With regard to the beginners, the increase in
their wages over the pre-war level was to some extent paralleled by a
corresponding increase in certain of the non-munition trades. Thus,
the Trade Boards made provision for a definite increase in the minimum
wages of learners, though these still in 1917 received, or at least were
guaranteed, far less than munition girls. In other trades the reflex
action of the high rates for girls employed on munition work and acting
as substitutes for boys in other "unskilled" occupations, appeared in a
different and probably more valuable form in the better provision for
industrial training agreed on by various associations of employers for
the benefit of their young workers.¹

¹ Cf. an agreement of London Dressmakers in September, 1916, for the
training and education of learners and apprentices.
IV. Wages and Prices.

To a considerable extent, the increase in the wages of women under the Munitions Acts was nominal only, and was neutralised by the increased cost of living.

The rise in the cost of food, if no allowance be made for change of dietary, between July, 1914, and December, 1917, was 106%. Even if allowance be made for a reasonable change of dietary, the rise in cost was 59%, in the light of which the purchasing power of the 30s. 0d. minimum time wage for women on "men's work," and of the 5½d. an hour plus 6s. 0d. a week bonus of women on "women's work," shrinks to very modest proportions.¹

The rise in the cost of food is indicated the following table (Table VII). These figures are given, not as an estimate of actual increase in expenditure, but as the best known index number of food prices, to which most frequent reference was made in hearings before arbitration tribunals and other authorities charged with the fixing of wages.

<table>
<thead>
<tr>
<th>Board of Trade and Ministry of Labour index numbers of retail food prices, showing percentage increase over level of July, 1914.</th>
<th>Purchasing power of £1 (in food) in towns of over 50,000 inhabitants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>January, 1915</td>
<td>July, 1914</td>
</tr>
<tr>
<td>July, 1915</td>
<td>18</td>
</tr>
<tr>
<td>January, 1916</td>
<td>32 ½</td>
</tr>
<tr>
<td>July, 1916</td>
<td>45</td>
</tr>
<tr>
<td>January, 1917</td>
<td>61</td>
</tr>
<tr>
<td>July, 1917</td>
<td>87</td>
</tr>
<tr>
<td>January, 1918</td>
<td>104</td>
</tr>
<tr>
<td>July, 1918</td>
<td>108</td>
</tr>
</tbody>
</table>

The most accurate measure of the increase in the cost of living is, however, afforded by the investigations of the Working Classes Cost of Living Committee, 1918, which reported on 23 October, 1918.² According to this report the general average rise in expenditure between July, 1914, and July, 1918, was 74%; the increase in weekly expenditure on food alone between June, 1914, and June, 1918, was 90%, the increase per man being on an average 5s. a week. The food requirements of a female over 14 years of age were taken as 83 of those of a man.

The rise in money wages for women munition workers has been remarkable during the three year period under consideration; but the rise in real wages, difficult as this is to interpret, has been by no means so great, except in the case of certain piece workers. The journalistic picture of the opulent woman munition worker is largely due to the cumulative effect of family earnings, opportunities for which greatly increased during the war, to the combination of earnings from munition work with a separation allowance or pension among

² Cd. 8980.
soldiers' wives, dependants and widows, and to the almost complete absence of periods of "slackness" and unemployment, which under normal conditions so greatly affect the average earnings of women in industry. While admitting the superiority of the woman munition worker's financial position by comparison with that of the non-munition worker, it was urged by successive labour deputations to the Ministry in 1917 that, except in certain forms of piece work, the normal woman munition worker at the time earned little more than enough to provide herself with a reasonable supply of the necessities of life, with small margin for other expenditure.

V. Advance in Earnings in Non-Munition Trades.

Probably in no form of women's industrial work did wages or earnings remain stationary between 1914 and 1917. Even in the unsusceptible trades of laundry and dressmaking, wages offered by London firms rose from 2s. 6d.-4s., to 6s.-8s. for learners, and from 20s.-25s. to 25s.-30s., for trained hands in the dressmaking trade, and from 12s. to 18s. for weekly workers in laundries. In the Trade Board occupations, the minimum wage was raised by 1d. and 1½d. above the 2½d. and 3d. an hour pre-war rate, while in the three trades so regulated in which employment was good, earnings were increased to a considerably greater extent by overtime work and war bonuses. In domestic service and in the textile trades, from which large numbers were drawn to munition work, average earnings rose very considerably—in some branches of the woollen and worsted trade, piece work prices increased by 50%, while the earnings of women employed doubled. In spite of such advances, however, the munition trades on the whole offered the best financial prospects to the normal industrial worker, even if these prospects were coupled with very hard work; and—quite apart from patriotic motives—the drift of the younger and more vigorous workers into munition work from the occupations quoted above is explicable. The loss of women workers in these occupations, between July, 1914, and 1917, has been estimated approximately as follows:—

| Domestic Service | 173,000 | out of (?) 1,300,000 |
| Shirtmaking      | 8,250   | 75,000         |
| Paper Box-making | 2,660   | 21,000         |
| Lace finishing   | 2,310   | 21,000         |
| Confectionery and Preserving | 13,600 | 68,000         |
| Laundry          | 16,000  | 100,000        |
| Dressmaking      | 22,600  | 130,000        |

How far this superiority of earnings for women and girls on munition work was due to competition for reliable and accessible labour, how far to the effect of statutory regulation, it is impossible at present to estimate. Some figures of women's wages in non-munition industries (in January, 1918) are given in the following table (Table VIII).

1 See "Report of Occupations in the United Kingdom, July, 1917."
2 See p. 161a for examples of some other wages of women employed by Central and Local Authorities.
TABLE VIII.

WOMEN'S WAGES IN CERTAIN NON-MUNITION INDUSTRIES,
JANUARY, 1918.

1. MINIMUM RATES UNDER TRADE BOARDS ACT OF 1909.

Machine-made Lace and Net Finishing.—August, 1914—2½d. an hour; raised in August, 1917 to 3½d. an hour.


Tin Box Trade.—November, 1915—3½d.; March, 1917—3½d.; October, 1917—4½d.


Weekly rates for learners

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2. WOMEN'S ARMY AUXILIARY CORPS.

Women engaged for technical employment with the R.F.C. and A.S.C. Forewomen (technical) 38s.-42s. per week with allowances, and board, lodging and washing at a maximum charge of 14s. a week, while in hostels or billets.

Acetylene Welders (fully trained), magneto and scientific instrument repairers, fitters, machinists for capstan lathes, milling machines, drilling, slotting, grinding ("practically no repetition work"), turners, tinsmiths, coppersmiths, sheet metal workers, armature winders, aeroplane riggers 28s.-32s. per week with allowances, etc., as before.

Dopers, painters, sign writers, 25s.-30s.; sailmakers, wing workers, upholsterers, 25s.-29s.; motor washers, 24s.-25s.; general unskilled labour, 24s.-26s. per week, with allowances.

3. WOMEN'S LAND ARMY.

Minimum weekly wage, 18s.; rising to £1 on passing a proficiency test, with certain allowances. Board and lodging guaranteed at not more than 14s. a week.

4. TYPICAL "SUBSTITUTE" WAGES.

L.C.C. Tramway Conductors .. 42s. to 51s. for a 54-hour week.
London General Omnibus Con- .. 5s. 10d. for a 12-hour day.
ductors...
Railway Companies—
(a) Midland : Cleaners .. 22s., plus war bonus of 8s. 6d. for a 48-hour week.
(b) G.W.R. : Porters .. 30s. a week for an 11-hour day.
Ticket Collectors 26s., plus war bonus of 8s. 6d. for a 10-hour day.
(c) G.C.R. : Cleaners .. 28s. 6d. a week for an 11½-hour day.

1 Compare rates laid down by the Munitions Wages Orders for learners on munition work (pp. 98, 99).
CHAPTER IX.

SOME RESULTS.

I. A Definite Policy.

The policy of the Ministry of Munitions with regard to women’s wages operated through its four groups of wages Orders, interpreted and applied by employers and employed, with ultimate recourse to the Department, and the Special Arbitration Tribunal. It was a policy of maintaining the standard rates acquired by men’s collective bargaining and of supplying a financial safeguard to women workers in the absence of organisation—a safeguard as much from their own lack of industrial standards as from deliberate underpayment by employers. The degree to which this was accomplished has been estimated in previous chapters. It was a much more definite policy than the Ministry of Munitions attained with regard to the wages of men munition workers—more definite because the Department was able to deal with the problems of women’s wages on a comparatively clean slate, whereas a multitude of schemes for the settlement of men’s wages were already in operation when the Ministry was established. After four years of war, the problems of men’s and of women’s wages showed signs of converging in some respects, as women adopted men’s work and to some small extent shared their organisations. But for the first three years of the Department’s activity the problems and their settlement were almost wholly distinct.

II. Methods of Payment.

The details of the wages Orders may appear to have been given undue prominence in the foregoing account. They may be expected, however, to have a lasting importance over and above their influence during the War, in preventing or lessening wage disputes, in facilitating the dilution of labour, and in securing to the worker the remuneration specified—since they introduced a large measure of regularity and system into the chaos of women’s wages. The following were some of the principles of wage payment enforced.

(1) The theory on which the payment for women taking the same work as men was regulated has been described exhaustively. But in addition to enforcing (with certain exceptions) equal payment for equal work, the principle of a minimum wage for women on munition work of any type was established by the later Orders. This was of obvious importance in the history of wages in the United Kingdom. It was largely because the original wage Orders of the Ministry prescribed standard, not minimum, rates, and therefore left no field for organisation to secure advances, that some women trade unionists criticised
them with vehemence, and compared them contemptuously to an Act passed three-and-a-half centuries earlier.\footnote{The time rates prescribed for women on "women's work" and on woodworking, by the Consolidated Order of May, 1918, were still nominally standard rates. So much elasticity was, however, given for higher payments under special circumstances (see Chapter VI., p. 85, and Chapter VII., p. 92), that the "standard" rates were by this time virtually minima.}

(2) A relation—subject indeed to considerable elasticity in interpretation—between time and piece rates was prescribed, except for women on "men's work" in the engineering and allied trades who were intended to receive piece prices established for men. According to the proportion thus fixed, the normal worker must be able to earn at least 25 per cent. more when paid by results than when on time work. This provision overrode a large number of pre-war variations between districts, trades and firms, in fixing piece prices, which had been a cause of much difficulty in men's skilled work, and acted as an obstacle to the extension of payment by results.

(3) Overtime and other special allowances were similarly standardised (on the basis of those paid to men for work of the same class), although the provisions for the "women's work" group remained elastic. This standardisation of extra allowances had been spreading at the same time among unskilled male workers, who, like women, often had at the beginning of the War no agreement with their employers about such payments. A group of Committee on Production awards fixed these payments for unskilled labourers.

(4) Time rates were guaranteed "irrespective of earnings" to women and girls employed on piece work and premium bonus. This important provision served as a precedent when the extension of systems of payment by results in the engineering and woodworking industries was under consideration.\footnote{ Cf. the Trade Boards Act of 1909 (Section 8) and that of 1918 (Section 6).}

(5) Piece work prices once established were not to be altered unless the "means or method of manufacture" were changed. This provision against the cutting of piece rates, was, again, obviously of the utmost importance for persons employed, like the majority of women munition makers, on systems of payment by results. The Ministry had, from the first acceptance of the principle of relaxation of trade union restrictions, given a general undertaking to all munition workers, that in return the cutting of piece rates would not be permitted, and had circularised controlled establishments to this effect in September, 1915. Men munition workers, it may be noted, only obtained explicit statutory recognition of this undertaking in the Munitions of War Act of August, 1917, although the principle was recognised in the second schedule of the first Munitions of War Act, and its observance coloured the regulation of munition workers' wages as a whole.

There remained a point in connection with the fixing of piece rates which left the workers' representatives dissatisfied. "Piece work prices and premium bonus time allowances shall be fixed by mutual
agreement in accordance with these directions [summarised above], between the employer and the worker or workers who perform the work." (Section 36 of the Consolidated Order.) An attempt was made in January, 1918, by the Women's Trade Union Advisory Committee to secure the insertion of the words "representative of" before "worker" in this clause, in order to introduce the trade union official into the process of rate fixing. Women, it was urged, were often inexperienced in estimating the prices due for a job, and needed outside help. This, it was frequently said, was specially desirable in the cases where women were engaged on "men's work," but were put on to new processes in such work. Such new piece prices might be underestimated and the prescribed relationship with the man's district time rate or the women's standard rate might disappear. The same claim had been discussed previously with employers during the consideration of the clause concerning piece rates for men in the Munitions Act of the previous summer, and it had been rejected on the obvious ground of the very great administrative difficulties involved in each workshop by such an arrangement.

Apart from this debatable question, the provisions summarised represented a definite advance in systems of paying wages. Doubtless they coincided with the long-established practice of many employers; but they were valuable as standardising methods of payment in the country as a whole. The general recognition of them as conditions to be observed, whatever the rate of wages, would facilitate greatly the further differentiation of rates by trades or districts, which was inevitable when the distinction of "munitions" and "non-munitions" work should have disappeared.

III. Changes in the Position of Employers and Workers.

Some more general aspects of wage regulation may be suggested in their bearing upon employers and workers.

(1) The Employers' Position.

Manufacturers of munitions in controlled establishments found the wages which they had to pay to their women workers settled for them by an external authority. They complained, with some justification, of the extreme suddenness with which they were sometimes called upon to comply with Statutory Orders enjoining the payment of new rates of wages at a few days' notice. In so far as their work was for Government, however, as the greater part of it tended to be, the consequences of such changes were not so serious as they would have been in normal times. Not only did a firm's competitors, as a rule, labour under identical disabilities, so that there was no danger of contracts being lost owing to the competition of firms paying lower rates of wages; but it was possible as a rule to recover any additional expense due to changes in wages from the Government that ordered

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1 Thus in a certain Lancashire district, as late as 1917, women piece workers on shell were said to have their prices fixed on the basis only of their guaranteed time wage of 26s. 6d., instead of on men's previous piece rates (L.R. 142/15).
the changes. The Ministry refused to commit itself to a general undertaking that a compulsory rise of wages should necessarily be refunded in full to a contractor by a revision of the terms of his contract. The Minister was prepared, it was explained to the Association of Chambers of Commerce in July, 1917, to take into consideration cases of grievances which might be brought to his notice, although a contract was supposed to allow a margin for wage fluctuations. In December, 1917, arrangements were made by the Ministry in conjunction with the Admiralty and the War Office for the insertion in future contracts—under certain conditions—of clauses providing for an addition to contract prices to meet the additional cost of wages “resulting from direct Government action.”

The extension of the wages Orders to a large number of uncontrolled establishments in the autumn of 1917 removed, to some extent, grievances due to the payment of less than the statutory wages by firms free from control under the Munitions Act.

It may be possible at a later date to obtain, if not statistics, yet a body of opinion, on the important problem whether the increase in money wages for women was really an addition to labour costs, or whether the apparent loss to the employer was recouped by the better type of workers so obtained. At present no adequate data are available. Employers represented, during applications before the Special Tribunal for advances in women munitions workers’ wages, that the height of their employees’ wages might be dangerous to their trades after the War. The test of foreign competition was, however, to a great extent, absent during the War.

(2) The Workers’ Position.

The position of the woman munition worker of July, 1918, had changed, like that of the employer, in the course of the past three years. A few months before the establishment of the Ministry of Munitions, she had, in many cases, been working short time, with memories of recent unemployment, in some other industry; or she had been engaged in distributive or domestic work remote from the industrial world; or she had been, technically at least, unoccupied. The Central Committee on Women’s Employment at the beginning of 1915 was still considering the policy of relief workrooms and the provision of special assistance to transfer under-employed workers to other occupations. Three years later, unemployment, and the consequent disturbance of wage standards, had been a thing of the past for many months, at least for those who could move freely to take up work, and the competent woman munition maker was beginning to realise in some districts the increased commercial value of her labour as its supply at last grew short.¹ Her cash wages during these three years had frequently doubled and sometimes quadrupled,

¹ At the end of January, 1918, a period of unemployment began for women in certain filling and other factories, which were either closed down or worked short time owing to lack of material.
though their purchasing power had risen to a very much smaller extent, and her real earnings were normally by no means excessive, according to any fair standard of living. This increase was due partly to scarcity of competent labour, partly to the employer's desire to secure good conditions and efficiency in his factory, or to trade union agitation; but it was also definitely due to statutory regulation of wages on the part of the Ministry. For the first time in their lives, a very large number of women workers were earning a wage which made it possible for them, if they chose, to obtain at least the necessary minimum of food and clothes and rest, and in some cases very much more than this. Further, owing to the new mobility of women's labour, many women and girls employed on munition work (like the soldiers' wives in receipt of separation allowances) had become responsible, again for the first time in their lives, for the independent expenditure of an adequate weekly income. The social effects of the regulation of munition workers' wages were probably quite as important as the economic results. This, however, is a subject that it is impossible to pursue here.

In the course of the patriotic work of learning to make munitions, the woman worker had learnt, for better or worse, the value of a short period strike, and, to some extent, if not very profoundly, of organisation. Even the girl fresh from school, hitherto the cheapest and most insignificant factor in production, had found herself—perhaps not wholly to her advantage—guaranteed wages at fourteen, such as before the War she would have looked forward to as a possible maximum which she might reach as a grown-up worker; and on at least one occasion her grievances had been the cause of a strike which caused the employer to appeal urgently to the Ministry lest the output (in this case of tanks) should be indirectly affected.¹ The woman munition worker's "industrial sense" had developed, in part at least as the result of vigorous efforts by some four or five trade unions admitting women members, backed by the precept and example of unions, such as the Amalgamated Society of Engineers, which excluded women from membership.² These things were not necessarily the result of the Department's administration, but they formed the constant background to the Ministry's wages policy.

Although the scope and influence of the women's trade unions was in no way comparable to that of the men's unions, and their organisers admitted that the traditional difficulty of inducing the young worker to treat membership of her union as necessary and permanent still continued, the attitude of the Ministry towards the representatives of these unions was as cordial as that which it maintained towards the officials of the men's societies. An officer of the Women's Trade Union League was a member of the Special Arbitration Tribunal; the Secretary of the National Federation of Women

¹ I.C. 4386; C.E. 1460/5.
² The total female membership of trade unions at the end of December, 1915, was 405,000. At the end of 1916 it was 535,000. More than half of these members belonged to the textile trades.—Labour Gazette, May, 1918.
Workers had been placed upon the Central Munitions Labour Supply Committee and had shared in its discussions on wages in the autumn of 1915 and 1916; a body of representatives of women trade unionists was summoned by the Ministry in November, 1917, to advise the Department regularly on questions of women’s wages and conditions of work. Complaints raised by these unions and by individual workers of the non-enforcement of the women’s wages Orders were regularly and promptly investigated.

The new relationship between a Government Department and both employers and workpeople, established in three years’ work of the Ministry of Munitions, was nowhere more tested than in the regulation of women’s wages. The department, as has been said, created no revolution in the wages system of the country, so far as women were concerned. But this was clearly outside its province, which was, primarily, the output of munitions. The control of wages was only a bye-product of the manufacture of munitions, yet the effect upon the country’s social and industrial life, thus incidentally produced, was remarkable and probably indelible.
CHAPTER X.

QUESTIONS OF PRINCIPLE.

I. The Administrative Problem.

In the preceding chapters an account has been given of the measures adopted by the Ministry of Munitions to control women’s wages, the discussions and negotiations that led to them, and the results that followed on their adoption. There is another point of view from which the experience of the Department can be reviewed. The Ministry was continuously engaged in dealing with concrete issues, that left it little time for the consideration of questions of abstract principle. At the same time its work was beset with questions of principle, to which it had to find, and did find, answers in the course of its work. The experience of the Department, therefore, constitutes a contribution to the study of certain permanent problems arising out of wages that has something of the value of experiment in research into the problems of physical science. On two of these problems it may be permissible to summarise briefly the Department’s experience; one, the practical problem of what is involved administratively in the control of wages by the State; the other, the theoretical question of the relations that should obtain between women’s wages and men’s.

On the first of these little need be said here, since the Department’s experience in regulating men’s wages has an equal bearing on the problem, and any final conclusions must be deferred until that experience has been recorded. The control of women’s wages by itself, however, has been sufficient to establish two principles that were not grasped before the control was undertaken, first, that the problem of wages control cannot be dealt with piecemeal, since interference with the wages of one class of workers inevitably reacts upon the wages of other classes; and, second, that the fixing of wage-rates involves an elaborate administrative organisation, comprising not only a central department issuing the Orders, but local agents to enquire into questions of application, and some judicial authority to decide on disputed cases. That these implications of wages control had to be learnt by experience is shown by the scanty administrative provision originally made. The first suggestion was a committee, advising the secretarial officers of the Ministry, in the same way as a committee adjudicated on questions of transfer of War Munitions Volunteers; the actual provision made was the appointment of a single officer.\(^1\) This was, of course, before

\(^1\) M.W. 51,872 (Oct., 1915).
the Minister had taken power to regulate the wages of any class of worker by Order and before the actual issue of the recommendations that preceded the Orders; but it was subsequent to the drafting and sending to the Minister of these recommendations, and it indicates how far removed from the original intentions of the Ministry was the detailed control of the wages of almost all women munition workers to which it was ultimately driven by the practical exigencies of its work.

It was, indeed, impossible in practice to draw a line, beyond which regulation should not extend, short of including all women munition workers. The policy of the Ministry at first was to rely on the Fair Wages Clause in public contracts to ensure fair wages, and on Section 4 (2) of the original Munitions of War Act to carry out the pledge that piece rates should not be cut. But the defective organisation of women’s labour, as has been shown, compelled a positive policy. The Central Munitions Labour Supply Committee found that the regulation of the wages of women on men’s work was essential to the smooth operation of dilution. From recommending rates the Ministry was led to take powers to order rates. From regulating the wages of women on “men’s work,” it was led to regulate the wages of women on “women’s work.” The fixing of rates involved decisions on all the incidental questions that the establishment of a standard rate involves—the rate of allowances for overtime, night work, and holiday work; the relation of rates to hours; the relation of piece work to time rates; probationary periods, and rates during probation; rates for juvenile workers; allowances for waiting-time and stoppages; differentiation between different grades of skill or exertion. Rates once established had to be adjusted to changes in the cost of living, which involved facing the problem of the relation between men’s advances and women’s.

The difficulty in drawing a line was due to the close inter-connexion of wages of different grades and different occupations. Absolute standards of fairness in wages there were none; every wage-earner therefore tended to compare his or her position with that of fellow-workers in allied occupations. The restriction of regulation to women on “men’s work,” led to cases such as those quoted in Chapter V., where women on comparable work in the same establishments were receiving different rates of pay. Such comparisons aroused a sense of injustice, which practically compelled an extension of control in order to remove the anomaly. It is significant that when the Wages Orders expired and their place was taken by the Wages (Temporary Regulation) Act of 1918, the limits of control were widened still further, all standards rates made compulsory, and control unified in the Ministry of Labour.

Complaints were frequently made by Trade Unions and employers’ spokesmen of the complexity of the Wages Orders. Yet the complexity was due very largely to a desire to meet or forestall difficulties raised by the same critics, and it would have been very much greater had their demands been conceded. As it was, only the activities

1 p. 60.
of the local and central officials of the Department, supplemented by the Special Arbitration Tribunal, made it possible to cover such an immense variety of cases with such a limited number of Orders and such a limited number of clauses in those Orders. The history of Circular L.2 and its successors shows how impossible it is to forecast all the doubtful cases that may come under an Order and to provide for their decision. But the negotiations which led to the successive revisions of L.2 were only a part of the problem of application and interpretation. Industry does not afford the administrator the convenience of sharply defined categories and compact occupational groups; on the contrary it offers a spectacle of infinite variety, in which every industry, district, and, one can almost say, firm, has its peculiar arrangements, and the categories, that one refers to so summarily by a single occupational term, prove in practice to be loose aggregations of very various units and to shade imperceptibly into one another. The number of problems presented by the application of general Orders to individual cases therefore is bound to be very great.

It must also be remembered that the Ministry's control of wages was undertaken and carried out under abnormal commercial conditions. The economic effort of the country was concentrated on a single task, the prosecution of the war, and the normal economic pressures, of competition on the one side and the possibility of unemployment on the other, were largely suspended. Had the Department had to allow in its control of wages for varying market conditions in all the trades it controlled and for constant fluctuations in these market conditions—had employers not had the possibility of throwing extra labour costs on to the Government, and workpeople not had the certainty of regular employment at rates much more remunerative than women were accustomed to before the war, the work of the Wages Section would have been infinitely more complicated. No such uniformity of basic rates as was achieved would have been practicable, the decision of what constituted a fair rate would have been much more difficult and arbitrary, and the explanation and enforcement of the multitude of different rates needed would have required a staff, at headquarters and in every industrial centre, such as the Ministry never commanded.

These considerations help to explain the difference between the State control of wages that existed before the war and that which the Ministry of Munitions was able to develop and exercise. Before the war, State control of women's wages was limited to eight trades, in which rates were regarded as exceptionally low. The characteristic that differentiated it fundamentally from the control established during the war, was that departmental action was directed not to fixing rates, but to enforcing rates fixed by Boards representative of the trades controlled. In other words, the State avoided the problems involved in fixing a rate and in making due allowance for all the varying factors that go to determine a rate, by throwing the responsibility on a body representative of the trade. In effect it provided, in certain ill-organised trades, a substitute for voluntary collective bargaining,
and assimilated the condition of these trades in the matter of wage-
determination to that of the majority of industries, in which standard
rates are established without the aid of the State. By throwing this
responsibility on to representative industrial bodies, the State escaped
the necessity of laying down standards of fairness; it left to the
representatives of the people most concerned the business of elaborating
the provisions of an order so that it should cover all the contingencies
that might arise under it; and, since the Trade Boards prescribed only
minimum rates, it left an ample margin for adjustment by private
arrangement to meet individual circumstances. The work of the
Ministry of Munitions, it has been pointed out, has done much to intro-
duce order and uniformity into the field of women’s wages; to the
extent that it has done this, it has facilitated the extension of control
by Trade Boards and made the task of future Trade Boards much
easier. If the differences between the general economic conditions of
war and of peace, however, are borne in mind, too much will not be
built on the Ministry’s achievement in fixing rates as well as enforcing
them when fixed. The conditions of war did not allow time for the
lengthy process of collective bargaining; the conditions of peace
require a much more delicate and precise adjustment of rates to market
conditions. While there would seem to be scope for a considerable
extension of State enforcement of standard rates, the actual fixing of
the rates is best done by the representatives of the people who pay and
receive wages.

The Absence of a Principle.

The Ministry’s experience illuminates another difficulty in any
policy of wages control by authority. Even if the Ministry had had
the opportunity of treating women’s wages from the beginning as an
integral problem, instead of having it thrust upon it piecemeal, even if
it had commanded from the beginning the services of a local and central
staff, adequate in numbers and experience, the Ministry would still
have lacked the essential condition of effective regulation, a clear and
definite conception of the principles in accordance with which its
control of women’s wages was to be exercised.

The regulative activities of public Departments consist usually
in the application to individual cases of general rules laid down by
statute. The Department has usually a subordinate legislative function,
since it can itself issue regulations interpreting and applying the general
principle of the statute to which its administration is to give effect.
But the statute itself settles the general question of principle; the
discussions that usually accompany the passing of a Bill make clear
its object, and give the Department time to consider its plans for
administering the statute; and the Courts will interpret any point in
the statute that has been left obscure. The Ministry of Munitions in
its control of wages lacked this guidance. The general control of wages
formed no part of the intentions of the promoters of the first Munitions
of War Act; while the Amending Acts which empowered the Ministry
to fix and enforce rates of wages for various classes of workpeople,
gave no guidance as to the principles on which rates should be fixed.
Consequently, when the Ministry found itself faced with the question, what is a fair wage for a woman taking up unskilled repetition work in munitions manufacture, it could draw no guidance from the statutes under which its work was authorised, and had to frame a solution for itself.

The control of wages was, indeed, incidental. It arose from the exigencies of dilution, and the policy adopted necessarily followed the demands of the skilled men’s Unions, who had it in their power to block dilution. There was no consideration of the problem of wages control on its merits; the principles on which the control should be exercised were largely determined by the need of finding an immediate solution to urgent practical problems, as in the Lang case. A decision might be taken, in order to secure an object to which the question of wages was only incidental, which would prevent a consistent treatment of a mass of wages questions in the future. Consistency, however, is essential to successful administration, and it can be attained only by settling the broad questions of principle, which come up again and again in the form of practical issues. The question, therefore, of the relation of women’s wages to men’s, theoretical and abstract as the discussion of it in the following pages may seem, has not only a practical importance for the future, but is an integral part of the history of wages control by the Ministry of Munitions, since it underlies most of the practical problems with which the Ministry had to deal.

II. “Equal Pay for Equal Work.”

On one question the first Munitions of War Act purported to lay down a principle on the terms, namely, on which women should be paid who took men’s work. Paragraph 5 of the Second Schedule laid it down that “The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job.”

Mr. Lloyd George, speaking as Minister of Munitions to a women’s deputation on 17 July, 1915, gave a pledge to the same effect. The Wages Section of the Ministry, therefore, could not in the field of “men’s work” frame its own policy with the freedom it enjoyed in the field of “women’s work.” But how far the Treasury Agreement, on which the Schedule quoted above and the Minister of Munitions’ pledge were based, was from affording a clear and definite principle on which the relations of women’s wages and men’s could be regulated is shown by the whole subsequent history of the Wages Section and especially by the negotiations that followed the issue of the Circular, L.2, intended to implement that pledge. The ordering of wages for “women’s work” was straightforward and satisfactory by comparison with “men’s work.” The Schedule did not so much afford guidance for dealing with the problem as queer the pitch for the people who had it to deal with.

The pledge was generally interpreted as promising “equal pay for equal work,” a formula that makes a popular appeal by its superficial

1 Cf. pp. 4 and 8.  
2 Cf. pp. 1–2.
simplicity and obvious fairness, and it was the attempt to extend the pledge from piece rates to time rates that led to most of the difficulties. Mr. Lloyd George promised identical rates only on systems of payment by results, explicitly excluding time work; the paragraph in the Second Schedule to the Act had, as the discussion preceding the formulation of it shows, the same limited reference; and the paragraph on the subject in Circular L.2 (and its successors) is quite definite; “the principle upon which the recommendations proceed is that on systems of payment by results equal payment shall be made to women as to men for an equal amount of work done.” But these limitations are not inconsistent with a general application of the formula, “equal pay for equal work.” The difficulty is that the formula itself constitutes a problem rather than a solution. The conflicting interpretations put upon it were a principal cause of the differences between employers and workpeople, and between both these classes and the Ministry itself, and its use has obstructed rather than assisted the development of a consistent policy of wages control.

**Conflicting Interpretations.**

The uselessness of the formula as a guide in administrative action is due to the ambiguity of the word "pay" and of the phrase "equal work," and to the absence from the formula of any reference to the element of time. Three different and conflicting interpretations at least can be put upon it:—

1. The claim is made that women should be paid the same rate as men on the same work, time work as well as piece work, irrespective of output and of other differences between men and women which affect the value of an employee to an employer;

2. The claim is made for equal payment for the same work, due allowance being made for differences in output, expense of supervision, etc., where men and women are engaged on the same work *at the same time*;

3. The claim is made that women who have taken over work formerly done by men should be paid the same rates as the men *used to receive*, with due allowance for any change in the conditions of the work and for changes in the cost of living and other factors influencing wages that might have led to an alteration in the rates had men continued to do the work.

The first of these claims was the claim made by the engineers for women undertaking part of the work of a skilled time worker; subject to a probationary period and a deduction for extra cost of supervision, it was conceded by the Ministry. The same claim was made for women on aircraft woodwork, but was refused on the ground that the industry had developed too recently and the nature of the work changed too much for any comparison to be drawn between men’s work and women’s. To this interpretation, employers always offered an uncompromising opposition, on the ground that equal time rates, since the women’s
output and general usefulness were less than the men's, represented unequal pay for equal work, and at various hearings they produced figures of actual expenditure to show that a woman's work in engineering or woodwork was the equivalent of only two-thirds or half of a man's.

The second and third interpretations were not usually distinguished, yet the practical importance of the distinction is very great. Equal pay for an equal amount of work is not only a practical policy, but the normal outcome of competition, when men and women are engaged on the same work in the same district at the same time. But it is comparatively rare in normal times to find men and women on the same work at the same time. Women are constantly displacing men, processes being adapted to make this possible, so that the really important comparison lies between the rates the women are receiving now and the rates that were formerly paid to the men before women undertook the work. The distinction is illustrated by the Special Arbitration Tribunal's recommendations after hearing the Aircraft Workers' claims on 10 and 11 September, 1918. The workers claimed that all work that had once been done by skilled men should be paid the full skilled rate; the Tribunal did not allow this claim, but in the case of a limited class of women, doing work that was still being done by skilled men, it recommended that the women be paid the men's rates.

**DIFFICULTY OF APPLICATION.**

Even if these conflicting interpretations are ignored and the formula taken at its face meaning, an equal amount of pay for an equal amount of work, there are difficulties in applying the principle to actual problems. The measurement of output in time work trades is never easy or certain; if it were, time work would almost certainly give place to piece work. Even equal piece rates do not give complete security that the choice of men's or women's labour will be a matter of indifference. Equal piece rates proportion payment to output; but if the man's output is considerably more than the woman's, it will be more economical to employ men, since fuller use will thereby be made of the plant and organisation of the firm, and it will be possible to spread dead charges over a larger output. Again, the weight or quality of the work, or the conditions under which it is performed, may be different for men and women, whose work is apparently the same. The operations they perform may be apparently the same, and yet the men receive a higher rate of pay because the heavier, finer, or more responsible work is given to them, or because they perform for themselves incidental operations, such as setting-up a machine tool or "tackling" a loom, which the women do not perform. Or the men may command a higher rate, because they provide a necessary reserve of strength or skill. A woman may perform the ordinary routine of work as well as a man, and yet the man's services have a higher value owing to his capacity to meet more or less exceptional emergencies. A male porter's superior strength may be called for only occasionally at a railway station, but must be provided; a fully qualified tradesman's all-round skill may be required only occasionally in a machine-shop, and yet be indispensable. Thus an employer often commands in the
case of men a reserve of strength or skill for which a charge is as reasonable as an insurance premium to cover contingent liabilities or an interest charge on reserve capital.

Thus the definition of "equal work" in the concrete is always a matter of difficulty. A great many cases in which there is apparently a disparity in the payment of men and women for the same work are found on examination to be due to such concealed difficulties in the nature or conditions of the work as are indicated above. The principle "equal pay for equal work" can therefore seldom be expressed in a single time rate or even in a single piece list; it will usually involve the estimate and tabulation of a number of slight differences, each of which has to be allowed for in fixing the rate. Herein is the explanation of the workpeople's demand for a single rate, time or piece according to the nature of the work. They feel that every addition to the complexity of the wage formula, unless it can be made the subject of exact objective measurement, provides an opening for the employer to "nibble" at the rate. The employer has all the resources of his costing department behind him when it comes to making an estimate of the allowance to be made for any difference in conditions; the workman has no such resource and is at a corresponding disadvantage in debate. The single rate on the other hand is a simple formula, easily understood and easily applied, that will rally all the workpeople concerned to its support; that it may operate to the exclusion of women from many occupations is, if perceived at all, regarded as relatively a minor disadvantage.

The Unions have been able to make good this claim, however, in the main, only in industries like cotton, where all the factors influencing output can be tabulated, allowed for, and embodied in a piece list. Normally it is exceptional for men and women to do exactly the same kind of work; but, where they do, equal pay for equal work, in the literal sense in which employers are prepared to apply it, tends to be the rule. For all the pressures to which competition subjects the employer, tend to compel him to give equal pay for equal work. Labour cost is so important a factor in the economy of producing for the market, and the adaptation of work to the varying capacity of different classes and grades of workers is so important a factor in keeping labour cost down, that an employer could not usually afford to go on paying men at a higher rate than women for equal work in any numbers. If the women can do the work, they will tend to get it, driving out the men, whose different capacity will be employed on work which can be done only by workers with the longer training or stronger physique of the man. Inequalities of pay for the same work occur; but so they do among men alone or among women alone. The rates of pay and allocation of work as between men and women vary from district to district; but similar local variations are found in the pay and work of men alone or women alone. The principle of equal pay for equal work operates normally between men and women, with quite as much regularity as between men alone or women alone in ill-organised trades.
Results of Substitution.

The more difficult problem, therefore, is that presented by the third of the interpretations of the formula given above, the relation namely of women’s rates at one time with men’s rates at another, earlier time. The real burden of the women worker’s complaint, ill-expressed in the claim for equal pay for equal work, lies in the fact that when women have displaced men and the two are no longer engaged on the work together, the women do not usually get the same rates as the men used to get. There is usually some alteration in processes or conditions, that masks the drop in the rate of pay, and, strictly speaking, perhaps takes the work out of the category of “equal work,” but the difference is usually too great to be accounted for by such changes. Women will accept and are therefore paid lower rates for the same or similar work than men, unless there are men actually engaged on the work with whom they can compare themselves and whose rates they can claim.

The formula, equal pay for equal work, does not then do much to answer the questions with which any authority or organisation attempting to control wages is faced. It merely slurs over and confuses two distinct questions, the question what should be the relation of women’s wages to men’s in cases in which men and women are doing the same or similar work at the same time, and the question what should be the relation, if any, of the wages of women who take over work formerly done by men to the wages the men used to receive. On the first question the formula of equal pay has issued in two irreconcilable policies, the trade union policy of the single rate irrespective of output or other circumstances influencing labour cost, and the policy of differential rates, corresponding with the differing efficiency of men and women, two policies that embody entirely different conceptions of the rights of labour in the economic organisation. The second question acquired a peculiar importance during the war, and, if we turn to the experience of the Ministry of Munitions, we find, not indeed an answer that was satisfactory either to the trade unions or the employers, but a policy that could be administered and a mass of evidence on which any better policy, if such can be devised, must be based.

III. Alternative Policies.

The war introduced two novel and exceptional conditions into the process of substituting women for men. In the first place, it speeded up the process. The usual motive that leads to substitution, the hope of reducing labour-costs, was weakened, since additional cost could be thrown in the case of so large a proportion of production on the State; but the absolute shortage of labour and the withdrawal of men for military service together constituted an inducement much stronger than the usual motive. The consequences of this acceleration were, first that any difference between the rates paid to women after substitution and those paid to men before was much more noticeable; and, secondly, that there were many more cases of incomplete substitution than usual and many more cases of women and men doing the same work at the same time. Hence the importance of the problem
of the right relation of women's wages to men's, an importance which it will lose as these temporary conditions pass.

In the second place, the substitution of women for men was not contemplated as a permanent arrangement. In order to overcome the natural resistance of the men to a reorganisation of production which might weaken their bargaining strength, the Government gave pledges in certain industries to restore pre-war conditions, and private employers gave similar pledges in other industries. However complete therefore the substitution of women for men might be during the war, it could not have the same effects on wages as it would have had in normal times. The wages of the women substitutes were closely linked with the wages of the men whose places they had taken and to whom it was intended they should give place after the war.

**Policy of the Ministry.**

The Ministry's policy must be considered in the light of these special conditions. The elaboration of it is detailed in Chapters II to IV; it may be summarised briefly as follows:

1. Piece-workers were guaranteed the same piece rates, and premium bonus workers the same basis times, as men had received;
2. Time-workers doing the whole of a fully skilled man's job—a small class—were paid his full time-rate;
3. Time-workers doing part of a fully skilled man's job (owing to sub-division or other re-arrangement of work) were paid his time-rate, subject to (a) a single probationary period lasting three months at lower rates, and (b) a deduction not exceeding 10%, to be sanctioned in every case by the Minister of Munitions, for extra supervision;
4. Time-workers doing unskilled or semi-skilled men's work were not regarded as necessarily doing "equal" work, but were secured a minimum wage.

These regulations, with the possible exception of the last, were consistent with the principle of equal pay; certain supplementary regulations made by the Ministry or based on decisions of the Special Arbitration Tribunal, excited more controversy. Thus:

1. Women piece-workers, although they received the same piece rates as men, had allowances for overtime or night shift calculated on the women's time rates, *i.e.*, on the rates guaranteed to women time-workers on men's work, not on the men's time rates;
2. Women did not participate in the bonuses and war-wage advances granted to men in 1917 and 1918, but received smaller advances at the same rate as women on work that was not done by women before the war.

The controversies on these points were complicated by the great practical difficulties met with in defining "men's work," because the customary distribution of work between men and women was different in different districts, and sometimes in different shops in the same district, and in drawing lines between skilled, semi-skilled, and unskilled work.
Thus, the women were given by the Ministry’s policy the same or equivalent *rates* as the men who had done the work before them had received; they were not given the same *pay* as men would have received, had men continued to do the work, or as men were receiving when men had continued to do the same or equivalent work, because their bonuses, war wages and other allowances were different. The drop in rates that usually accompanies a rearrangement of work and the employment of women in place of men was prevented; but in the subsequent adjustment of wages there was differentiation between women and men. Thus, the principle of equal pay was not applied consistently in any of its three senses; and consistency was difficult to achieve, when the substitution of women for men was being treated as a temporary arrangement only, and the control of the wages of substitutes undertaken more in the interests of the men whose sphere of work was being invaded than of the substitutes themselves. The men’s interests, it was considered, were adequately safeguarded, if the *rates* in operation when the women were introduced had not been cut by the time the women went out; bonuses and other adjustments in the interval did not affect the rate and could be left out of account, being equally temporary and specifically intended to meet the cost of living. The differences in overtime allowances for piece workers could be defended, when the woman’s output was less than the man’s, since her earnings in normal hours would be less and the reduced overtime payment roughly proportionate. Thus, the Ministry’s policy was based on an attempt to “freeze” the system of rates in operation immediately before the introduction of women, and thenceforward to maintain a sharp distinction between these rates and any supplementary payments subsequently authorised to meet changes in the cost of living.

Even this policy, however, could not be carried out quite consistently. Thus:—

1. The policy of encouraging systems of payment by results pursued by the Ministry (and by other Government Departments), and the stereotyping of piece-rates once fixed, had the effect of disturbing pre-war wage relations and establishing new standards of earnings, which had no relation whatever to changes in the cost of living.

2. While the men’s awards in the chief munition industries were intended specifically to leave *rates* unaffected, and therefore took the form of a single amount payable alike to all time-workers, skilled and unskilled, it was possible to argue that they did not leave the rates unaffected but were additions to them. For the awards to piece-workers took the form of percentages on earnings; and even in the case of the time-workers the war wage was to count for the purpose of calculating overtime and similar allowances. Thus, the women could argue that the men’s rates on which their rates were based had been altered.

3. While the great majority of the women on “men’s work” received war wage advances in the same form as, but at
a lower rate than, the Committee on Production awards to men, the Coal Controller's award, when extended to allied trades by the Ministry of Munitions, did not discriminate between men and women on the same work. The number of women was no doubt small, but the case is important from the point of view of principle.

Obstacles to Uniform Treatment.

The Trade Unionist criticism of the Ministry's policy and the Ministry's reply have been indicated in Chapters IV and VII. To have conceded the Unions' demand of equal war advances and of the 12½% and 7½% bonuses for all women on men's work would have involved the State in large additional expenditure. It must logically have led to conceding the same overtime, night shift and other allowances. By abolishing the distinction between the "rate" and war advances, it would have justified skilled workers, male as well as female, in refusing the flat bonus which they received in common with semi-skilled and unskilled workers and in claiming larger advances proportionate to their higher normal rates. Its most serious effect, however, would have been its reaction on other women on "women's work," and on women wage-earners outside the munitions industries. The former could not have been expected to rest content with lower rates of pay merely on the ground of the historical accident that men had not done their work, much of it new work, before the war. They would have pressed for similar rates to those of their fellow women workers on munitions. Women working outside the scope of the Munition Wages Orders would have made similar comparisons, especially since the Wages Orders did not necessarily cover all the women in a given trade, and they, too, would have claimed advances that would at least maintain the existing proportion between their earnings and those of the two classes of women munition workers. Then, since male workers normally consider themselves entitled to rates higher, in some well-understood ratio, than those of the women in the same industry, they too would have presented their claims, and a new cycle of trouble would have begun. The Department's policy of treating the wages of all women munition workers as an integral problem and of placing on the pledge to the men's unions the interpretation that interfered with the uniform treatment of women's wages least is easily understood when the administrative problems that would have been raised by any other policy are considered.

On the other hand, the discrimination between men and women on "men's work" was resented by men and women alike. It gave rise to a sense of injustice among the women and a fear among the men that their economic position was being undermined, which had already produced serious industrial unrest and might have been expected to produce much more, when the Armistice was signed. Its inconsistency with the simplest and prima facie meaning of "equal pay for equal work" led the great mass of the workers concerned, who were ignorant of the strict limitation within which the Government had pledged itself to that principle, to impute a breach of faith to the Government. From the point of view of principle, what was perhaps
of more importance was that it gave official recognition to a novel principle in the fixing of wages, by basing them on the assumed needs of the worker as well as on the work done; if the lesser needs of the woman without dependants were to justify a lower rate for equivalent work than was paid to men who were presumed to have dependants, then a case would be made out for discrimination between women without and women with dependants, and between single and married men. The connection between value of product and labour cost would be severed, and demands would be invited for the application of the system of Army separation allowances to industry.

The root of the difficulty in which the Ministry of Munitions found itself was the difference in the general levels of men's and women's wages, and the obstacle in the way of a consistent policy was the pledge to the men's unions. Had no pledge to base the wages of certain women on men's rates been given, it would have been possible to treat women's wages as a self-contained problem, and to confine regulation to assisting collective bargaining and enforcing its results. Whether fixed by Order or by collective agreement, women's rates would have represented roughly the resultant of the bargaining strength of employers and employees; and, where the substitution of women for men was complete, no question of the relation of the women's rates to those previously received by the men would have been entertained. But the pledge that women on "men's work" should receive the same piece rates as men had done, and the general undertaking that substitution should be temporary, precluded such a policy. The practical question was whether the men's position was adequately safeguarded by securing to the women who took their work at the rates in operation at that moment, or equality of pay, inclusive of all bonuses and allowances, was necessary.

The demand for the payment to women of the same bonuses, advances and allowances as men was in effect a demand for something more than "equal pay for equal work." As has been shown, equality of pay for equal work is normally established by the fixing of new rates after the introduction of women, which are either so high as to make the continued employment of women at them uneconomical to the employer, or so low as to render the occupation unattractive to men. The present demand in effect proposed that the rate should be determined on the assumption that the work was actually men's work, without allowance for the fact that women could do and were doing it. In other words, the demand was not for equal pay only, but for equal pay at men's rates, although the work had become women's work. When the women 'bus-conductors struck, what they demanded was not that the total sum that the industry could afford in bonuses should be distributed equally, which might have afforded a bonus of 3s. 6d. to men and women alike, but that the men should continue to receive a 5s. bonus and the women's bonus of 2s. 6d. be raised to the same amount. In the munitions industries, where the claim covered women in exceptional trades, in which they had completely, though only temporarily, displaced men, the basis of pay, had the claim been
conceded, would have been entirely hypothetical; the women's pay would have been based on what men would have received had they continued to do the work, which as a matter of fact they had not.

The Ministry's policy of "freezing" the rates in operation when substitution began, was, however, only possible because substitution was being treated as temporary. As a permanent arrangement—and inevitably after four years' operation some of the war changes in the allocation of work must persist—it was impracticable. There was nothing sacrosanct about the rates in operation in 1914 and 1915, or whenever substitution began in a trade; industrial conditions are constantly changing, and wages must change with them. Once the war ended, the distinction between "rate" and "war wage," or "bonus," was bound to lose its force; the Wages (Temporary Regulation) Act, as we have seen, swept it away.

** Difficulty of Basing Women's Rates on Men's. **

Under normal conditions, then, to base women's wages on men's, when women and men are no longer engaged simultaneously on the work, is not a practicable policy. It would require a continuation of State fixing of women's wages, since the problem would not arise if women could be relied on to stand out for equivalent rates to men's without assistance. State fixing of wages would not afford a certain guarantee of rates as high with women in a trade as they would have been with men; the authority charged with the task would almost certainly, like an arbitrator, be influenced by the probable results of free bargaining, which would certainly be lower rates for women, the general relation of women's wages to men's being what it is. Even if every care were taken to exclude that factor, the security would be incomplete owing to the intrinsic difficulty of the task placed on the State; it is a hard enough task for an ordinary arbitrator to estimate actual economic forces and reach a wage determination that will stand; to ask a State Department to fix women's wages on the assumption that men only are employed, a hypothetical and non-existent state of things, is to ask impossibilities.

The belief that women's wages can be based on men's, and the demand for a State policy of wage-regulation on this basis, would seem to be due to a notion that work has always a precise intrinsic value. The drop in wage rates that usually accompanies the complete substitution of women for men in an occupation is regarded from this point of view as an unjust abstraction by the employer—or, if the analysis is carried a little further, by the community in its capacity of consumer—of a part of the intrinsic value of the work; what the value of the work is, it is argued, could be ascertained when the men performed it, and the women who take their place should be paid that value.

Work, however, no more than anything else has intrinsic value. Every change in the demand for or supply of the product on which any kind of labour is expended influences the value of that product and indirectly of the labour. If a product is not wanted, then the labour that is specialised to it will not be wanted either, and its value will to that extent be reduced. Equally, if some change in the character,
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organisation or application of labour makes possible production at a reduced labour-cost, the value of the commodity will tend to fall. Profits act as a buffer between the value of the product and wages, bearing losses due to temporary reductions in value, and taking the gains due to temporary increases; but competition and the advantages of large production, which can be disposed of only by keeping prices down, are usually sufficient to keep the value of the product and the wages of the labour expended on it in close and constant relation. Now the substitution of women for men usually does result in lower labour costs, because the women will not stand out for the same wages as men, and consequently if they displace men, get less for equivalent work. The substitution of women for men therefore normally leads not only to a lowering of rates of wages, but before long, to a lowering of prices of products—or, what amounts to the same thing, to a check to the rise in a time of rising wages and prices. Neither prices nor wages represent more than a temporary equilibrium of conflicting forces, and the women engaged on a low-priced product at a low rate of wages are just as likely to be getting the full market value of the work as the men who did the same work at a higher rate of wages before; but the value of the work has changed.

THE DEMAND FOR THE SINGLE RATE.

Any attempt then to base women’s rates on men’s in occupations in which they are no longer working together is impracticable; there remains the problem of the relation that should be maintained between men’s and women’s wages in work on which both are engaged at the same time. We have seen that all the pressure that competition exerts on employers will tend to make them give equal pay for equal work in this case. There will always be anomalies, because the pressure of competition is not uniform or always effective against customary standards; but at any rate unequal pay is an unstable condition of things. Employers, as the experience of the Ministry and the Special Arbitration Tribunal shows, are willing to accept the principle of equal pay in this sense and to co-operate in giving effect to it where it is not already observed. But Labour, as represented both by the men’s unions and the women’s, will not accept this principle, and opposes to it the claim to the single rate for the job. It is necessary to consider whether that policy is practicable, and, if so, what would be its effects.

The policy is practicable in so far as any control of wages is practicable. A single rate or piece list for each occupation could be established and protected either by effective trade union organisation or by Statutory Order, and the Fair Wages Clause in public contracts could be made to give support to the principle in the former case. The effect would vary with the kind of work done. In time work—except in rare cases of work for which men and women were equally fitted—the effect would be to exclude sooner or later the less efficient class; in rare cases women would be more efficient, but in most cases the employer, having to pay the same rate in either case, would prefer the fuller training and stronger physique of the man. In the munitions industries, in spite of the shortage of labour of every kind and in spite of the possibilities of throwing on to the Government additional
labour costs due to Government regulation of wages, employers were reluctant to employ women at men's rates, and the supply departments of the Ministry supported their protests on the ground that identical rates checked the employment of women; the employment of women in the tool-room, for example, was hindered by the necessity the employer was under of paying the man's time rate (subject to a possible deduction for extra supervision) after the conclusion of a single probationary period, in which the woman would become expert at only one of the many tasks to which a tool-room hand might be set.

On systems of payment by results, the effect might be different in different cases. Where a piece list could be devised that made allowances for all the various factors that could influence output and gave therefore a wage that was exactly proportionate to the net output attributable to each worker, there women and men would continue to work together in the occupation; cotton-weaving is the best example. Where, however, the measurement of output, with due allowance for every factor, is difficult—as is the case in most of the engineering occupations—a single piece list would probably have the same effect as a single time rate, and tend to exclude from the occupation the less efficient class of workers, which would in most cases be the women. The strong opposition of employers to the women's claim to identical overtime and other allowances for piece workers, backed up as they were by examples of the additional costs involved in employing women in the place of men, indicate that even on systems of payment by results an identical rate may tend to exclude women. The demand for identical rates for men and women was made most strongly, it may be noted, by those unions that offered the strongest opposition to payment by results.

The policy of the single rate would tend therefore to restrict the field of women's employment in time-work occupations, and to some extent in other occupations. It would hamper their entry into new occupations by imposing on employers who wished to introduce them the cost of maintaining them at the full rate during the period of training while their efficiency was less than normal. The restriction of women's employment in its turn would involve relatively an uneconomical use of men's labour, since they would retain work that could be done by workers of less complete training and weaker physique. It would also probably stimulate the search for processes and methods of organisation so different that they would enable employers to effect a substitution of women for men in the production of a given commodity without any comparison between men and women being instituted.

Another effect that the single rate might be expected to produce would be to stimulate the devising and extension of systems of payment by results. A system of payment by results as perfect as a cotton weaving piece list makes it almost a matter of indifference to an employer whether he employs women or men. If the men's production is greater, the employment of men will ensure a fuller use of plant and a lowering of overhead expenses per unit of product; this, however,
will not by itself be enough to counteract the advantages to an employer of women's labour. Women's standards of wages are lower than men's; the introduction of any considerable number of women to an occupation, therefore, will tend to lessen the pressure on the employer for higher wages. It must not be expected that the extension of systems of payment by results will be easy; the workers in what are at present time work trades will resist it, and their resistance will be valuable if it prevents the introduction of such systems in work in which the factors influencing the workman's productivity cannot be accurately measured and allowed for.

The chief result of the policy of the single rate, however, would be, for reasons already stated, to strengthen the tendency towards a division of labour between the sexes and their separation in different occupations. This division of labour will not necessarily be in accordance with the special capacities that distinguish men and women, owing to the hindrance the policy offers to the free entrance of women to trades at present confined to men; and the division would be to a large extent arbitrary in the large number of occupations in which women can do the work as well, if not as quickly, as men. But a division of labour would be effected, since it is unlikely that there would be many cases in which the work of men and women was exactly equivalent, or in which the inequalities in their work could be subject to continuous and precise measurement and allowance made for them all in a piece list.

These are grave objections to the policy of the single rate, from the point of view both of society, which requires the most economical application of the varying capacities of its members, and of women workers as a class, whose most pressing need is a wider choice of employment. But so long as the present disparity between the standards of men's and women's wages persists, the policy is probably open to less objections than any alternative solution of the problem. Thus, while it restricts the field of women's employment, it does secure for them equality of pay in those occupations in which they are engaged along with men; and, unlike a policy of differential rates, it leaves no room for discussion and complaint as to the relative adequacy and fairness of the two rates. In the second place, by keeping men and women in the main in separate occupations, it lessens the opportunities of comparison between men's rates and women's, avoids all the awkward questions as to what constitutes "equality" of work, and offers no nourishment to that sense of injustice which, however illogically, is always found when men and women are engaged on the same or similar work at different rates. Nothing comes out more clearly from the Ministry of Munitions' experience than the administrative difficulties arising from any attempt to encourage the employment of women on "men's work" in "time work" trades. In the third place, it secures this convenient and desirable separation of the sexes in different occupations, without any overt or, indeed, any deliberate exclusion of women from any occupation; the rate discriminates automatically, just as a fixed price for any article determines the nature and amount of supply. Finally—and this is the consideration that commends the
policy to Trade Unionists—it is the simplest policy to administer, whether rates are to be determined by collective bargaining or State control, and gives a security to the standard rate that would be difficult to attain with any other policy. The workman feels with justice that any additional complication in wages puts him at a disadvantage with the employer. Even if the workman’s official can by some means compensate for his lack of access to the employer’s cost accounts, and so secure differential rates that represent exactly the differing efficiency of men and women, he cannot count on the solid and unanimous support of the rank and file of the workers, when it comes to negotiating an advance, resisting a reduction, or adapting the rates to a change in conditions, as he could expect if his case were summed up in a single rate. Especially is this the case when the workers whom he has to rally include women as well as men; for women have not as a rule the same instinctive loyalty to their union as generations of Trade Union organisation have implanted in men, and women’s standards of what they ought to receive and what they must at any cost stand out for, are lower than men’s. If the policy of the single rate reduced the aggregate wealth of the community and the share of that aggregate that went to the wage-earning class, the wage-earner would still feel that the additional security that it gave to his rate was worth the sacrifice. And it is at least arguable that the reduction of friction in the relations of employers and employed, that the policy might be expected to yield, would be a contribution to production as considerable as any contribution that would be made by a redistribution of labour in industry carried through against the wishes of the workers. To be fair to the woman-worker, however, the policy of the single rate would need to be supplemented in two directions: first, by the provision of facilities for training that would enable women to qualify themselves for earning the full rate in the higher paid occupations, and, secondly, by the establishment and protection of minimum rates for women in lower paid occupations.

IV. The Differing Standards of Men’s and Women’s Wages.

Underlying every problem of the relation of women’s wages to men’s is the disparity between the general level of women’s wages and the general level of men’s. That fact was the reason why it was impossible to ignore the sex of the worker and consider only the skill required or the intensity of the work in deciding any question of remuneration. Some consideration may be permitted in conclusion of the reasons for this disparity.

It is not sufficient to say that wages are “customary” and that “custom” keeps women’s wages down. It is true that custom makes change difficult, and that what has been for a long time comes to be regarded as ethically right. But to attribute the difference between men’s and women’s wages to “custom” means no more than that the difference is hard to remove and hard to explain. It is necessary to explain the “custom.” Reasons are not really hard to find, although it is difficult to assess their respective importance. The most obvious is the restricted field of employment open to women. Women are
QUESTIONS OF PRINCIPLE

excluded from certain of the better-paid manual occupations, such as coal hewing and iron and steel manufacture, by considerations of physique. In others the work requires a high degree of skill or an all-round capacity; these, women could attain if they went through the same lengthy training as men, but the average expectation of industrial life is so much less in the case of a girl than a boy that women rarely do undergo this training. From others, again, women are excluded by customary or Trade Union restrictions. The result of these restrictions is to crowd women workers into a relatively narrow range of occupations, within which competition for work is exceptionally keen.

But suppose these restrictions removed; suppose women had access to a range of occupations as wide, having regard to their respective numbers, as the range open to men. Would they then secure and maintain in their own field of work rates as high as men would have secured had they occupied the field? It is very doubtful. The restrictions on women’s employment are no greater than those to which an unskilled male labourer of less than average physique is subject; yet women’s wages before the war were much lower on the average than those of unskilled male labour. An explanation is needed also why competition for employment does not force workers, labouring under so many disadvantages as women, to accept even lower rates than they do. There is no common physical limit below which work could not be done; Mr. Seebohm Rowntree’s calculations of a minimum wage give a figure far above the average woman’s earnings, and in most countries wages are much lower than in England; even if there were a physical limit, charity, the Poor Law, and subsidies by relatives would enable a large number of workers to accept wages below it.

The explanation is probably to be found in a customary limitation of competition. Customary standards are established for which the great mass of workers in any grade or class will stand out. Wages tend to be pressed down by competition until this limit is reached, when competition ceases to operate. The great difference between labour and material commodities (in their reaction to changes in demand) is just this: in the case of a material commodity that, like labour, will not “keep,” the price will usually if necessary be reduced until the whole of the supply is taken up, in the case of labour the seller will not reduce the price below certain customary limits, preferring unemployment in a sufficient number of cases to maintain these limits. The limit is fixed by the conventional needs of the workers concerned; i.e., the customary limit is established by the majority of the class. Owing to competition among employers the minority who could manage on less will be able to get the rate; owing to competition for employment, the minority who have exceptional social liabilities and need more will be able to get no more.

Now, the majority of women have no dependants; the majority of men maintain a family. The customary standard in the case of women is therefore lower than in the case of men. Competition, as has been said, tends to go on till the customary standard is reached in
each case, but the customary standard is different. It is through this influence on the customary standard of women workers that the fact that in the majority of cases women have no dependants influences wage rates; whether it ought to do so, is an entirely separate question.

These customary standards are important because prices tend to be adjusted to a labour cost based upon them; it is the consumer, therefore, not the employer in the last resort, who pays women less than men. They constitute a minimum supply price which has to be paid to get the work done, and in the long run the normal is not much above the minimum. In times of good trade, when labour is scarce relatively to the demand, wages will rise above them; but the rise will not be permanent unless secured by organisation. Organisation substitutes conscious limitation of competition for the instinctive combination inspired by a customary standard; consequently, it makes the standard more definite and can take advantage of any opportunity to raise the standard. Where the women are well organised rates high enough to attract men are maintained, and men and women are found on the same work. Whether established by conscious or unconscious limitation of competition, however, there is a rate for most kinds of labour, to which prices tend to be adjusted; and this rate is usually lower in the case of women's work, because women as a rule can and will accept a lower rate than men.

If this analysis is correct, the lower general level of women's wages is the outcome of one of the most fundamental of social conditions, the economic unity of the family. There is nothing accidental or transient about it, and a Government that sought to ignore it would be continuously brought back to a realisation of its fundamental character by the practical difficulties with which such a policy would find itself faced. The man's wage is a "family" wage, the woman's an "individual" wage. To say this is to state a fact, not to enunciate a principle. No Government authority or combination of employers before the war ever deliberately adopted the principle that women's wages ought to be less than men's, or consciously based women's rates on their individual needs, men's on a family's needs. Women themselves and men themselves have established the two standards, by standing out in each case for a wage that would meet the conventional needs of a normal member of the class.¹

The Question of Social Principle.

Explanation, however, is not justification, and it is impossible to avoid the question—Ought women's wages generally to be lower than men's?—or to put the problem specifically—Ought the Government, when it undertook the control of women's wages, to have accepted the fact of the difference between men's and women's wages without trying in the course of its control to eliminate the difference? The answer given will depend not on any survey of facts, but on the political or ethical principle adopted by which to judge wage rates and wage relations.

¹ One important result of the War has been a raising of the conventional standard of life of the women workers. This is likely to be permanent, with the result, that the divergence between women's wages and men's is likely to be less. But there will still be a divergence.
Whatever policy the Government had adopted in regulating the relations of women's wages to men's, it would have met with an equal amount of criticism—not all of it from different quarters. For it is just on this point of principle, what ought to be the basis of wages, that the greatest and the least suspected differences exist. Thus, the implication underlying the claim to equal pay, when men and women are engaged on the same work at the same time, is one thing when the work is piece work and the pay proportionate to output, an entirely different thing when the work is time work and the pay independent of output. In the former case, the ethical principle adopted is that pay should be proportionate to output and should vary with the amount of work done; in the latter case, it is that a certain income should be attached to a certain industrial service, to be paid irrespective of individual variations in output, like the soldiers' pay or the salaried official's income. Again, when the claim is made that women should have the rates of men who formerly did the work before it became a woman's job, the implication is the same as in the former of the two cases given above, that pay should depend on output, and women should be paid the same proportion of the men's pay as their output bears to the men's output. But there is a further implication in this last claim, namely, that every kind of labour has an intrinsic value that ought to be secured to the worker in the form of wages, and that the payment for labour should not be affected by changes in the supply of labour in the way that the prices of commodities fluctuate with every change in the conditions of their supply. The criticism of the Ministry of Munitions' wages policy drew much of its acerbity from a feeling that its decisions were not merely mistaken or inexpedient, but actually unjust, because they infringed the principles of justice supposed to be inherent in existing wage rates and wage relations.

When we turn to the actualities of the wage system, we see that this criticism at any rate has no valid ground. Just as the principles on which the different critics based their claims were contradictory and inconsistent, so the actual rates and relations existing before Government control began are explicable by reference to no single ethical principle. Support can be derived from a study of the facts of wages for each of the principles indicated in the last paragraph; but taking a complete view, we find neither the uniform correspondence of remuneration with exertion required by the first theory, nor the guarantee of economic status by the second, nor the stable intrinsic values by the third. On the contrary, wages are seen to be the outcome of bargaining and to be liable to change with every change in market conditions and production methods, and generally with every change in the bargaining strength of either of the parties concerned.

So far as the influences determining them can be summed up in a single formula, wages would seem to depend on the relative indispensability of the labour for which they are paid. The demand for the product, the riches or poverty of the natural resources on which the labour will be employed, the extent to which capital is available, and the possibility of substituting some other labour, will condition
the indispensability of any particular kind of labour; combinations among the workpeople will largely determine the form and method of payment; combination again, or in the case of unorganised labour an instinctive observance of common standards, will impose a lower limit below which wages will not be allowed to fall; and no single formula can make due allowance for all the influences of historical conditions, perpetuated by custom, on wages. But analysis reveals among the factors no unifying ethical principle, because none such has ever been imposed. And the reason why none such has been imposed (and why the Government could impose none during the War), is that there is no agreement on the principle to impose. The whole system is empirical; society pays through the employer what it has to pay in order to get the work done; the worker gets from society through the employer just as much as he can for his work. There are no intrinsic values in the economic world, and labour, like the employer of labour, is left by society to make the best of its market.

No appeal to existing facts, therefore, will answer the question, Ought the general level of women’s wages to be lower than men’s? All that the appeal to the facts shows is that the assumption of intrinsic value in work, on which the allegation of injustice rests, has no foundation.

No final answer to the question can be given, but a case can be made for the difference in the levels of men’s and women’s wages at least as strong as any case for equality. The benefit of the lower level of women’s wages goes to the consumer; otherwise profits in industries employing mainly women would be higher than in industries employing mainly men, of which there is no evidence. The majority of women wage-earners have not dependants, while the majority of men have; a higher rate for men, therefore, is needed to secure anything like equality between the individuals dependent on wages. The difference in the levels, although it is not the outcome of any deliberate policy with this object, results in a closer approximation of income to needs and a greater equality of income among the individuals dependent on wages (as distinct from the actual recipients of wages) than would a single uniform level. Were the State to adopt the principle of the identical standard for men and women and to seek by authoritative control of wages to eliminate the present difference in the standards, it would not merely be introducing a new factor into the determination of wages, which would compel an indefinite continuation of the State control of wages; it would be establishing a new economic basis for the family, and it is from this point of view that any such proposal should be approached.

The experience of the Ministry of Munitions has afforded an object-lesson in the difficulties and problems attending any attempt to fix wage rates by authority. The relation that should be maintained between women’s rates and men’s was the problem on which the most numerous and the greatest difficulties centred. The controversies which the Ministry’s decisions excited turn ultimately on differences of opinion on the question, What ought wages to depend on? Until
that question of ethical and social principle has received further elucidation and some general agreement on it has been reached, no satisfactory system of wage-fixing by authority can be substituted for the present system of wage-fixing by bargaining and private contract.

For this reason the experience of the Ministry affords no encouragement to go beyond the methods of State control of wages accepted in principle and already in operation before the war. These were to assist collective bargaining and accept its results, merely imposing such minima as the general wealth of the community permitted and public opinion demanded. To establish statutory bodies for collective bargaining, like the Trade Boards and the Agricultural Wages Board, to make the determinations of such boards and of voluntary joint bodies mandatory on whole trades, to assist collective bargaining by providing facilities for conciliation and arbitration, are all in line with this policy, and the experience of the Ministry has shown that a great extension of such activity is possible. The discussions over Wages Orders have also made it clear that a wages policy will not provide for all social needs, since it is impossible in establishing rates to make provision for every exceptional case, or even for such important groups as that of women wage-earners with families dependent on them; any wages policy therefore will form only a part of a general social policy. But with the actual fixing of rates in normal times, and especially with the fixing of rates for men and women on similar work, no Government that has studied the experience of the Ministry of Munitions and can by any means avert the necessity, will be inclined to meddle.
APPENDICES.
### APPENDIX I.

**Table of the Statutory Wages Orders.**

*Note.*—Orders marked * are printed in Appendix III.

#### THE MUNITIONS (EMPLOYMENT AND REMUNERATION OF WOMEN ON MEN’S WORK) ORDERS.

<table>
<thead>
<tr>
<th>Wage Order No.</th>
<th>Dated</th>
<th>Date taking effect</th>
<th>Remarks</th>
<th>Statutory Rules and Orders No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24/2/16</td>
<td>28/2/16</td>
<td>Circular L.2 in compulsory form. £1 a week for unskilled time-workers, etc. (See Ch. II.)</td>
<td>(1916) 181*</td>
</tr>
<tr>
<td>2</td>
<td>26/6/16</td>
<td>3/7/16</td>
<td>Same as No. 181 applied to different firms.</td>
<td>411</td>
</tr>
<tr>
<td>3</td>
<td>7/9/16</td>
<td>18/9/16</td>
<td>Same as No. 181 applied to different firms.</td>
<td>586</td>
</tr>
<tr>
<td>4</td>
<td>28/9/16</td>
<td>16/10/16</td>
<td>Same as No. 181 applied to different firms.</td>
<td>704</td>
</tr>
<tr>
<td>5</td>
<td>21/12/16</td>
<td>1/1/17</td>
<td>Provision for “intermediate” payments added. Amends and re-enacts previous orders. (See pp. 30-35).</td>
<td>888</td>
</tr>
<tr>
<td>6</td>
<td>24/1/17</td>
<td>5/2/17</td>
<td>Amends and re-enacts No. 888 ( Provision for probationary period and for recognition of the £1 a week as a minimum).</td>
<td>(1917) 49</td>
</tr>
<tr>
<td>7</td>
<td>16/4/17</td>
<td>8/4/17</td>
<td>Supersedes previous orders (24s. minimum for timeworkers, etc.).</td>
<td>489*</td>
</tr>
<tr>
<td>8</td>
<td>30/5/17</td>
<td>18/6/17</td>
<td>Same as No. 489 applied to different firms.</td>
<td>539</td>
</tr>
<tr>
<td>9</td>
<td>16/8/17</td>
<td>3/9/17</td>
<td>Same as Nos. 489 and 539 applied to different firms, including certified undertakings.</td>
<td>888</td>
</tr>
<tr>
<td>–</td>
<td>7/11/17</td>
<td>19/11/17</td>
<td>Same as Nos. 488, 539, 888 applied to different firms.</td>
<td></td>
</tr>
<tr>
<td>–</td>
<td>31/5/18</td>
<td></td>
<td>Part I. of No. 546 applied to different firms.</td>
<td>(1918) 594</td>
</tr>
</tbody>
</table>

#### THE MUNITIONS (EMPLOYMENT AND REMUNERATION OF GIRLS ON MEN’S WORK) ORDERS.

<table>
<thead>
<tr>
<th>Wage Order No.</th>
<th>Dated</th>
<th>Date taking effect</th>
<th>Remarks</th>
<th>Statutory Rules and Orders No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6/7/16</td>
<td>17/7/16</td>
<td>(See p. 22)</td>
<td>(1916) 456</td>
</tr>
<tr>
<td>2</td>
<td>7/9/16</td>
<td>18/9/16</td>
<td>Same as No. 456 applied to different firms.</td>
<td>587</td>
</tr>
<tr>
<td>3</td>
<td>28/9/16</td>
<td>16/10/16</td>
<td>Same as Nos. 456 and 587 applied to different firms.</td>
<td>703</td>
</tr>
<tr>
<td>4</td>
<td>22/1/17</td>
<td>5/2/17</td>
<td>Same as Nos. 456, 587, 703 applied to different firms.</td>
<td>(1917) 48</td>
</tr>
<tr>
<td>5</td>
<td>16/4/17</td>
<td>8/4/17</td>
<td>Supersedes previous orders. (See p.23)</td>
<td>490</td>
</tr>
<tr>
<td>6</td>
<td>30/5/17</td>
<td>18/6/17</td>
<td>Same as No. 490 applied to different firms.</td>
<td>540</td>
</tr>
<tr>
<td>7</td>
<td>16/8/17</td>
<td>3/9/17</td>
<td>Same as Nos. 490 and 540 applied to different firms (including certified undertakings).</td>
<td>889</td>
</tr>
<tr>
<td>–</td>
<td>7/11/17</td>
<td>19/11/17</td>
<td>Same as Nos. 490, 540 and 889 applied to different firms.</td>
<td>1123</td>
</tr>
</tbody>
</table>
## The Munitions (Remuneration of Women and Girls on Work not Recognised as Men's Work) Consolidated Orders.

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>6/ 7/16</td>
<td>17/ 7/16</td>
<td>Hourly rate of 4½d. an hour on time, 4d. on piece, etc. (See pp. 64 et sqq.)</td>
<td>(1916) 447*</td>
</tr>
<tr>
<td>-</td>
<td>13/ 9/16</td>
<td>2/10/16</td>
<td>To be read in conjunction with No. 447</td>
<td>&quot; 618*</td>
</tr>
<tr>
<td>1</td>
<td>27/10/16</td>
<td>20/11/16</td>
<td>Consolidating Nos. 447, 618...</td>
<td>&quot; 759</td>
</tr>
<tr>
<td>2</td>
<td>6/ 1/17</td>
<td>22/ 1/17</td>
<td>Amends and extends Nos. 447, 618, 759. (See pp. 77 et sqq.)</td>
<td>(1917) 9*</td>
</tr>
<tr>
<td>3</td>
<td>6/ 1/17</td>
<td>22/ 1/17</td>
<td>Amends and extends Nos. 447, 618, 759.</td>
<td>&quot; 10</td>
</tr>
<tr>
<td>4</td>
<td>16/ 4/17</td>
<td>8/ 4/17</td>
<td>Supersedes No. 9 (rates raised to 5¾d. an hour on time, 4¾d. on piece).</td>
<td>&quot; 492</td>
</tr>
<tr>
<td>5</td>
<td>16/ 4/17</td>
<td>8/ 4/17</td>
<td>Supersedes No. 10...</td>
<td>&quot; 493</td>
</tr>
<tr>
<td>6</td>
<td>30/ 5/17</td>
<td>18/ 6/17</td>
<td>Same as No. 492 applied to different firms.</td>
<td>&quot; 542</td>
</tr>
<tr>
<td>7</td>
<td>16/ 8/17</td>
<td>3/ 9/17</td>
<td>Same as Nos. 492 and 542 applied to different firms including certified undertakings.</td>
<td>&quot; 891</td>
</tr>
<tr>
<td>-</td>
<td>7/11/17</td>
<td>19/11/17</td>
<td>Same as Nos. 492, 542 and 891 applied to different firms.</td>
<td>&quot; 1119</td>
</tr>
<tr>
<td>-</td>
<td>31/ 5/18</td>
<td>---</td>
<td>Part II. of No. 546 applied to different firms.</td>
<td>(1918) 595</td>
</tr>
</tbody>
</table>

**Note.** Statutory Rules and Orders No. (1917) Nos. 10 and 493 were only applied to a few firms in rural districts. The rates prescribed were a farthing lower than in Nos. 9 and 492, 542, 891.

## The Munitions (Employment and Remuneration of Women and Girls on Woodwork for Aircraft) Orders.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13/ 9/16</td>
<td>2/10/16</td>
<td>5d. to 6½d. an hour, etc. (See Ch.VII.)</td>
<td>(1916) 621</td>
</tr>
<tr>
<td>2</td>
<td>16/ 4/17</td>
<td>8/ 4/17</td>
<td>Supersedes previous orders (6d. to 7½d. an hour, etc.).</td>
<td>(1917) 491</td>
</tr>
<tr>
<td>3</td>
<td>30/ 5/17</td>
<td>18/ 6/17</td>
<td>Same as No. 491 applied to different firms.</td>
<td>&quot; 541</td>
</tr>
<tr>
<td>4</td>
<td>16/ 8/17</td>
<td>3/ 9/17</td>
<td>Same as Nos. 491, 541 applied to different firms (including certified undertakings)</td>
<td>&quot; 890</td>
</tr>
<tr>
<td>-</td>
<td>7/11/17</td>
<td>19/11/17</td>
<td>Same as Nos. 491, 541 and 890 applied to different firms.</td>
<td>&quot; 1117</td>
</tr>
</tbody>
</table>
### The Munitions (Employment and Remuneration of Women and Girls on General Woodwork) Interim Orders.

<table>
<thead>
<tr>
<th>Wage Order No.</th>
<th>Dated</th>
<th>Date taking effect</th>
<th>Remarks</th>
<th>Statutory Rules and Orders No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 30/3/17</td>
<td>16/4/17</td>
<td>(6d. an hour minimum)</td>
<td>Same as No. 313 applied to different firms.</td>
<td>(1917) 313</td>
</tr>
<tr>
<td>- 30/5/17</td>
<td>18/6/17</td>
<td></td>
<td></td>
<td>&quot; 543</td>
</tr>
<tr>
<td>- 16/8/17</td>
<td>3/9/17</td>
<td></td>
<td>Same as Nos. 313, 543 applied to different firms (including certified undertakings).</td>
<td>&quot; 892</td>
</tr>
<tr>
<td>- 7/11/17</td>
<td>19/11/17</td>
<td></td>
<td>Same as Nos. 313, 543, 892 applied to different firms.</td>
<td>&quot; 111</td>
</tr>
</tbody>
</table>

### The Munitions (Employment and Remuneration) Consolidated Women’s Order.

<table>
<thead>
<tr>
<th>Wage Order No.</th>
<th>Dated</th>
<th>Date taking effect</th>
<th>Remarks</th>
<th>Statutory Rules and Orders No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 8/5/18</td>
<td></td>
<td></td>
<td>Consolidates and amends existing Orders. (See pp. 51, 83, 90, 91).</td>
<td>(1918) 546</td>
</tr>
<tr>
<td>- 21/6/18</td>
<td>15/7/18</td>
<td></td>
<td>Same as No. 546 applied to different firms.</td>
<td>&quot; 743</td>
</tr>
<tr>
<td>- 30/8/18</td>
<td>1/9/18</td>
<td></td>
<td>Same as No. 546 applied to different firms.</td>
<td>&quot; 1103</td>
</tr>
</tbody>
</table>

### Advances in Wages of Women and Girls.

<table>
<thead>
<tr>
<th>Wage Order No.</th>
<th>Dated</th>
<th>Date taking effect</th>
<th>Remarks</th>
<th>Statutory Rules and Orders No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 31/7/17</td>
<td>18/8/17</td>
<td></td>
<td>Applied to all controlled and uncontrolled establishments to which wages Orders had been applied up to that date, 2s. 6d. advance to women, 1s. 3d. to girls.</td>
<td>(1917) 781</td>
</tr>
<tr>
<td>- 16/8/17</td>
<td>3/9/17</td>
<td></td>
<td>Same as No. 781 applied to different firms (including certified undertakings).</td>
<td>&quot; 893</td>
</tr>
<tr>
<td>- 7/11/17</td>
<td>19/11/17</td>
<td></td>
<td>Same as Nos. 781, 893 applied to different firms.</td>
<td>&quot; 1121</td>
</tr>
<tr>
<td>- 14/1/18</td>
<td>15/12/17</td>
<td>(first full pay-day after)</td>
<td>3s. 6d. advance to women, 1s. 9d. advance to girls.</td>
<td>(1918) 31</td>
</tr>
<tr>
<td>- 28/8/18</td>
<td>1/9/18</td>
<td></td>
<td>5s. advance to women, 2s. 6d. advance to girls.</td>
<td>&quot; 1073</td>
</tr>
</tbody>
</table>
APPENDIX II.

Note on the Application of the Wages Orders.

POSSIBLE SCOPE.

Under Section 6 of the Munitions of War Act of January, 1916, statutory wages Orders for women might be issued to establishments to which the leaving certificate rules applied—i.e., to those engaged on "munitions" in the narrow sense of engineering and shipbuilding and the production of arms, ammunition and explosives. This definition did not, until May, 1916, include all controlled establishments, and the first issue of L.2 was therefore on a limited scale. After that date, the Department was able, if this appeared desirable, to apply the Orders to all controlled establishments.

Only about a dozen uncontrolled establishments had these regulations applied to them by special order during 1916. The question of their application to uncontrolled munitions establishments was discussed as early as April, 1916, with reference to the case of a small uncontrolled firm at Sheffield which was employing women on men and boys' work at less than the L.2 rates. It was, however, held to be impossible to regulate wages in uncontrolled establishments at the time, except by applying statutory Orders to individual works, since very large numbers of firms might be involved and only a Munitions Tribunal could say whether Section 7 of the Munitions Act applied to one of them or not (1).

In the summer of 1917 it was, however, decided to apply the wages orders to gas, water and electricity works and tramways, which, although not controlled establishments, had been classified as "certified undertakings" under Section 9 (1) of the Munitions Act of 1915. This was effected, despite the forthcoming withdrawal of the benefits of the leaving certificate regulations, which had been the immediate cause of the "certification" of these undertakings.

The Munitions of War Act of 1917 provided (Section 4) that the right to make statutory orders for women’s wages should, if the leaving certificate regulations were withdrawn, be applicable to "female workers employed on or in connection with munitions work in establishments of all classes." In accordance with this provision the orders were sent during the succeeding autumn and winter to a considerable number of uncontrolled establishments (such as those producing bolts and nuts and—rather later—ammunition boxes) as well as to further "certified undertakings."

THE TRADES INCLUDED.

Circular L.2 in its obligatory form was sent primarily to controlled establishments engaged in munitions work in the sense described above. By February, 1917, the Orders regulating the wages of women and girls taking men’s work (including those working on aircraft and paid under a separate Order) had been applied to 3,585 establishments engaged in the following trades:—

Arms, ammunition and ordnance; mechanical, electrical, tele-

1 M.W. 92329/32; C.E. 3845/4. Cf. Vol. IV., Pt. II.
graphic and marine engineering; makers of electric and telegraphic accessories; machine tool manufacture; shipbuilding and repairing; iron and steel works; tube works; tinplate; lead and copper works; foundries; blast furnaces; wire and cable works; textile and printing machinery; motors and cycles; aircraft; constructional engineering; the manufacture of saws and files; cutlery; silver and electro plate.

Orders for women on men's work had not by this date been applied to the few controlled establishments in Ireland, although they were so applied in July, 1917. Explosive and chemical works, and munition works producing glass, optical and scientific instruments, tinplate, rubber, oil and seed-crushing were also excluded during the first two years of regulation. The L.2 series of orders were, it was pointed out in an official memorandum (L.30) on the circulars bearing on dilution, intended primarily for the engineering and allied industries, though in other trades they might be used as a basis on which rates might be fixed. The most important exception to their application was the chemical and explosives trade group. This omission had been deliberate on the part of the Department, which, however, in so far as the national factories were concerned, endeavoured to secure at least as good conditions for the women so employed as for those in engineering works. Conditions as to daily shifts, the weekly hours of work and payment for overtime differed so much in the engineering and chemical trades that there were difficulties in applying the same wage regulations to both. Further, practically all work for women replacing men in such factories involved questions of payment under "special circumstances" or for special skill, so that the application of L.2, even as modified in 1917, could settle little with regard to wages.

Application of Consolidated Order.

The original application of the "women's work" Orders and their extension has been explained in Chapters V. and VI.

The Consolidated Order of May, 1918, was applied to controlled establishments in the trades specified below, together with uncontrolled establishments known to the Department to be employing women on munitions work of a class similar to that performed in controlled establishments scheduled, and not known to be employing women on munitions work of a class which had been expressly excluded from the operation of the Order. An effort was made to cover all firms known to be producing guns, ammunition, ammunition boxes (wood) and aircraft.

Metal Trades.

1. Metal manufacture:—Blast furnaces; steel works; iron and steel foundries; forges; stamps; drops and dies; rolling mills; drawn rod and wire works; tubes.

1 L.R. 142/34, and Parliamentary Debates, 6 March, 1917.
2 M.W. 92/28
3 See pages 55, 77.
4 The number of women thus employed in April, 1918, was approximately as follows:—Controlled Establishments, 495,000; Government Factories, 133,600; Uncontrolled Establishments receiving orders, about 50,000; total 678,600.
2. Machinery: — Electrical and other machinery; factory equipment; machine tools.

3. Engine and pump building: — Steam turbines; steam, gas, oil and Diesel engines; locomotives (in controlled establishments establishments other than railway workshops); pumps, compressors and condensing plant; aero-engines; motor vehicles, lorries and cycles (engines and chassis); tanks (engines and transmission gear).

4. Constructional engineering and boilermaking: — Constructional engineering; boilermaking; tanks (hulls and sponsons).

5. Vehicles and aircraft: — Aeroplanes, seaplanes and flying boats; airships; motor vehicles; lorries and cycles (bodies); railway carriages, wagon building, coachbuilding and wheelwrighting.

6. Arms and ammunition: — Guns, gun-carriages and parts; rifles, machine guns, revolvers; swords and bayonets; shells (excluding filling) and parts; fuses and shell accessories and cartridge cases; grenades, bombs, mines, etc.; torpedoes; rifle and machine gun cartridges and Q.F. cartridges; miscellaneous Trench Warfare (including steel helmets).

7. Miscellaneous: — Gas and water meters; cocks and valves; pipe fittings; ball and roller bearings; electric lampholders, installations, electric light and gas fittings and oil lamps; typewriters and duplicators; flexible metal tubes, etc., stoves, grates and ranges; field kitchens; small tools and gauges; "engineering and non-engineering implements"; scientific, surgical and dental instruments, optical and glass instruments, electrical and other instruments, screws, bolts, nuts; nails and rivets; springs; electric wires and cables.

Chemical Trades.

1. Explosives manufacture: — Nitrocellulose, gun cotton, R.D.B. and other propellants; T.N.T., ammonium nitrate and mixtures therewith; dinitrophenol and picric acid; gunpowder; blasting and other high explosives; fulminates.

   Explosive filling: — Propellant filling (cordite, etc.); Q.F. cartridges; small arms cartridges; bad charges.

   High Explosive Filling: — Shell filling (poison gas filling); fuse, primer and detonator filling; grenade, bomb, poison gas and other filling, mine and torpedo filling, cap and safety fuse filling and pellet pressing; fireworks, signal lights, flares, smoke-boxes, etc.

2. Other Chemicals: — Heavy chemicals, including poison gases; drugs and fine chemicals; fertilisers; dyes; dope; coke ovens; tar distilleries; refineries of tar products; seed crushing, oil extraction and refining tallow; seed cake production; animal and vegetable oil refining and tallow production; shale oil and petroleum refining.

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1 "Women's work" portion of Order only.
Miscellaneous.
Ammunition boxes; rope; rubber.

NOTES.
(i) Tin box firms, being under a Trade Board, did not receive the Consolidated Order, but in certain cases received the order of August, 1917, for a general advance of 2s. 6d. a week.
(ii) Hollow-ware firms, also under a Trade Board, received the men's work portion (only) of the Consolidated Order. They also received the orders for general advances of 2s. 6d. and 3s. 6d. a week, to be applied to women on men's work; in certain cases women on "women's work" had the 6s. special advance superimposed on their Trade Board rates.
(iii) Chain-making firms received orders for the special advances only.
(iv) Paper firms did not have the Consolidated Order, but continued to apply the advances in some cases imposed on them. A few paper box firms employed on cartridge cylinders got the order.
(v) Tinplate firms in S. Wales and firms who were members of the S. Wales Siemens Steel Association paid under special arrangements in lieu of the orders.
(vi) Certified undertakings and leather firms did not receive the Consolidated Order. The former remained under the separate "men's work" and "women's work" orders applied to them in the previous autumn.
APPENDIX III.

Circulars and Orders relating to the Remuneration of Women and Girls on Munition Work.

1. **Circular L.2, October, 1915.**—Recommendations relating to the Employment and Remuneration of Women on Munition Work of a class which prior to the War was not recognised as Women’s Work in districts where such work was customarily carried on.


Circular L.2.

MINISTRY OF MUNITIONS.

MUNITIONS LABOUR SUPPLY COMMITTEE.

Recommendations relating to the Employment and Remuneration of Women on Munition Work of a class which prior to the War was not recognised as Women’s Work in Districts where such Work was customarily carried on.

(Note.—These Recommendations are on the basis of the setting up of the Machines being otherwise provided for. They are strictly confined to the War period and are subject to the observance of the provisions of Schedule II. of the Munitions of War Act reprinted in the Appendix.)

1. Women of 18 years of age and over employed on time, on work customarily done by men, shall be rated at £1 per week, reckoned on the usual working hours of the district in question for men in Engineering Establishments.
This, however, shall not apply in the case of women employed on work customarily done by fully-skilled tradesmen, in which case the women shall be paid the time rates of the tradesmen whose work they undertake. Overtime and night-shift and Sunday and holiday allowances payable to men shall also be made to women.

2. Where women are prevented from working, owing to breakdown, air raid, or other cause beyond their control, they shall be paid for the time so lost at the rate of 15s. a week as above, unless they are sent home.

3. Women shall not be put on piece work or premium bonus systems until sufficiently qualified. The period of qualification on shell work shall not, in general case, exceed three to four weeks.

4. Where women are employed on piece work they shall be paid the same piece work prices as are customarily paid to men for the job.

5. Where women are engaged on premium bonus systems, the time allowed for a job shall be that customarily allowed to men for the same job, and the earnings of the women shall be calculated on the basis of the man's time rate.

6. Where the job in question has not hitherto been done on piece work or premium bonus system in the establishment, the piece work price, or the time allowed, shall be based on a similar job previously done by men, on piece work or premium bonus system as the case may be.

7. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece work price or time to be allowed, the price or the time to be allowed shall be so adjusted that the women shall receive the same percentage over the time rate of the class of men customarily employed on the job, as such man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

8. The principle upon which the recommendations proceed is that on systems of payment by results equal payment shall be made to women as to the men for an equal amount of work done.

9. Piece work prices and premium bonus basis times shall be fixed by mutual agreement between the employer and the woman or women who perform the work.

10. On piece work, every woman’s time rate as per Clause 1 hereof shall be guaranteed irrespective of her piece work earnings. Debit balances shall not be carried forward beyond the usual weekly period of settlement.

11. On premium bonus systems every woman’s time rate as per Clause 1 hereof shall in all cases be paid.

12. Overtime and night shift and Sunday and holiday allowances shall be paid to women employed on piece work or premium bonus system on the same conditions as now prevail in the case of men in the district in question for time work.
13. Piece work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

14. All wages and balances shall be paid to women through the Office.

15. Any question which arises as to the interpretation of these recommendations shall be determined by the Minister of Munitions.

October, 1915.

APPENDIX.

MUNITIONS OF WAR ACT, 1915.

Schedule II.

1. Any departure during the war from the practice ruling in the workshops, shipyards, and other industries prior to the war shall only be for the period of the war.

2. No change in practice made during the war shall be allowed to prejudice the position of the workmen in the owners' employment or of their trade unions in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war.

3. In any readjustment of staff which may have to be effected after the war priority of employment will be given to workmen in the owners' employment at the beginning of the war who have been serving with the colours or who were in the owners' employment when the establishment became a controlled establishment.

4. Where the custom of a shop is changed during the war by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the time and piece rates paid shall be the usual rates of the district for that class of work.

5. The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings.

6. A record of the nature of the departure from the conditions prevailing when the establishment became a controlled establishment shall be kept, and shall be open for inspection by the authorised representative of the Government.

7. Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired.
8. All differences with workmen engaged on Government work arising out of changes so introduced or with regard to wages or conditions of employment arising out of the war shall be settled in accordance with this Act without stoppage of work.

9. Nothing in this Schedule (except as provided by the fourth paragraph thereof) shall prejudice the position of employers or persons employed after the war.

STATUTORY RULES AND ORDERS.
1916, No. 447.

MUNITIONS OF WAR.

Remuneration of Women and Girls on Munition Work of a class not recognised as Men's Work.


Directions relating to the Remuneration of Women and Girls on Munition Work of a Class which prior to the War was not recognised as Men's Work in Districts where such Work was customarily carried on.

1. Where women or girls are engaged on Munition work of a class which prior to the war was not recognised as men's work in districts where such work was customarily carried on, the time rates for piece-workers and premium bonus workers shall be as follows:

<table>
<thead>
<tr>
<th>Workers</th>
<th>Rate per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 years and over</td>
<td>4d.</td>
</tr>
<tr>
<td>under 18</td>
<td>3½d.</td>
</tr>
<tr>
<td>17 years and over</td>
<td>3d.</td>
</tr>
<tr>
<td>under 16 years</td>
<td>2½d.</td>
</tr>
</tbody>
</table>

2. The rates for such women and girls when customarily on time shall be as follows:

<table>
<thead>
<tr>
<th>Workers</th>
<th>Rate per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 years and over</td>
<td>4½d.</td>
</tr>
<tr>
<td>under 18</td>
<td>4d.</td>
</tr>
<tr>
<td>17 years and over</td>
<td>3½d.</td>
</tr>
<tr>
<td>under 16 years</td>
<td>3d.</td>
</tr>
</tbody>
</table>

3. Women and girls in danger zones shall be paid ½d. per hour in addition to the above rates. Allowances for other processes which are dangerous or injurious to health will be decided on the merits of such cases.

4. The appropriate time rate shall, in the case of any woman or girl on piece work, be guaranteed irrespective of her piece work earnings. Debit balances shall not be carried forward from one week to another.

5. On premium bonus systems every woman's and girl's appropriate time rate shall in all cases be paid.

---

1 Should be "third," and so amended in the Amending Act of 1916.
6. Women or girls shall not be put on piece work or premium bonus systems until sufficiently qualified. The period of qualification should not generally exceed four weeks.

7. The above rates shall be recognised as war rates, and as due to and depending on the exceptional conditions resulting from the present war.

8. The foregoing rates shall not operate to prejudice the position of any person who has better terms and conditions, nor prevent employers from recognising special ability or responsibility.

9. For the purpose of this Schedule the term "men" means males of 18 years of age and over.

10. Any question which arises as to the interpretation of these provisions shall be determined by the Minister of Munitions.

STATUTORY RULES AND ORDERS,
1916, No. 618.

MUNITIONS OF WAR.

Remuneration of Women and Girls on Munitions Work of a class not recognised as Men’s Work.


Supplementary Directions relating to the Remuneration of Women and Girls on Munitions Work of a Class which prior to the War was not recognised as Men’s Work in Districts where such Work was customarily carried on.

1. Additional payment in respect of overtime, night-shift, Sunday or holiday work shall be made to women and girls employed on munitions work of a class which, prior to the war, was not recognised as men’s work in districts where such work was customarily carried on. Such additional payments shall be made in accordance with the custom of the establishment for the class of workpeople concerned in cases where such a custom exists. Where no custom providing for such additional payments exists in the establishment, such additional payments shall be made at the rates and on the conditions prevailing in similar establishments or trades in the district. Where there are no similar establishments or trades in the district, the rates and conditions prevailing in the nearest district in which the general industrial conditions are similar shall be adopted. In the absence of any custom prevailing in the establishment, or in the district, or elsewhere, such additional payments shall be made at such rates and on such conditions as the Minister of Munitions may direct.

2. Piece work prices and premium bonus basis times shall be such as to enable a woman or girl of ordinary ability to earn at least
33\% per cent. over her time rate, except in the case of an establishment where an application that this provision should be dispensed with either generally or as regards any particular class of workpeople has been approved by the Minister of Munitions.

3. The foregoing conditions shall be recognised as war conditions and as due to and depending on the exceptional circumstances resulting from the present war.

4. Any question which arises as to the interpretation of these provisions shall be determined by the Minister of Munitions.

5. These directions shall be read in conjunction with the directions contained in Order 447 as if they were included in that Order.

STATUTORY RULES AND ORDERS, 1917, No. 9.

MUNITIONS OF WAR.
Employment and Remuneration.


First Schedule.

Directions relating to the Remuneration of Women and Girls on Munitions Work of a Class which prior to the War was not recognised as Men's Work in Districts where such work was customarily carried on.

1. Where women or girls are engaged on munitions work of a class which prior to the war was not recognised as men's work in districts where such work was customarily carried on, the time rates for piece workers and premium bonus workers shall be as follows:—

<table>
<thead>
<tr>
<th>Workers 18 years and over</th>
<th>17</th>
<th>under 18</th>
<th>16</th>
<th>&quot;</th>
<th>15</th>
<th>&quot;</th>
<th>under 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4d.</td>
<td>3% d.</td>
<td>3d.</td>
<td>2% d.</td>
<td>2d.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The rates for such women and girls when customarily on time shall be as follows:—

<table>
<thead>
<tr>
<th>Workers 18 years and over</th>
<th>17</th>
<th>under 18</th>
<th>16</th>
<th>&quot;</th>
<th>15</th>
<th>&quot;</th>
<th>under 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4% d.</td>
<td>4d.</td>
<td>3% d.</td>
<td>3d.</td>
<td>2% d.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Women and girls in danger zones shall be paid \%d. per hour in addition to the above rates. Allowances for other processes which are dangerous or injurious to health will be decided on the merits of such cases.
4. In an establishment in which a custom prevailed prior to the war of differentiating between the rates of wages paid to women and girls employed in warehouses and those otherwise employed, an application may be made to the Minister of Munitions for special directions as to the rates of wages to be paid to women and girls employed in warehouses.

5. Women and girls may be rated at 4d. per hour less than their appropriate time rate under these directions for probationary periods not exceeding:

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the case of workers</td>
<td></td>
</tr>
<tr>
<td>of 18 years and over</td>
<td>1 month</td>
</tr>
<tr>
<td>&quot;</td>
<td>16</td>
</tr>
<tr>
<td>&quot;</td>
<td>under 18</td>
</tr>
<tr>
<td>&quot;</td>
<td>under 16 years</td>
</tr>
</tbody>
</table>

Such probationary periods shall be reckoned from the date when women or girls are first employed, and no woman or girl shall be called upon to serve more than one probationary period.

6. The appropriate time rate shall, in the case of any woman or girl on piece work, be guaranteed irrespective of her piece work earnings. Debit balances shall not be carried forward from one week to another.

7. On premium bonus systems every woman’s and girl’s appropriate time rate shall in all cases be paid.

8. Women or girls shall not be put on piece work or premium bonus systems until sufficiently qualified. The period of qualification should not generally exceed four weeks.

9. Additional payment in respect of overtime, night-shift, Sunday or holiday work shall be made to women and girls employed on munitions work of a class which prior to the war was not recognised as men’s work in districts where such work was customarily carried on. Such additional payments shall be made in accordance with the custom of the establishment for the class of workpeople concerned in cases where such a custom exists. Where no custom providing for such additional payment exists in the establishment, such additional payments shall be made at the rates and on the conditions prevailing in similar establishments or trades in the district. Where there are no similar establishments or trades in the district, the rates and conditions prevailing in the nearest district in which the general industrial conditions are similar shall be adopted. In the absence of any custom prevailing in the establishment, or in the district, or elsewhere, such additional payments shall be made at such rates and on such conditions as the Minister of Munitions may direct.

10. Piece work prices and premium bonus basis times shall be such as to enable a woman or girl of ordinary ability to earn at least 33½% over her time rate, except in the case of an establishment where an application that this provision should be dispensed with either generally or as regards any particular class of workpeople has been approved by the Minister of Munitions.
11. The above rates and conditions shall be recognised as war rates and conditions, and as due to and depending on the exceptional circumstances resulting from the present war.

12. The position of any person or persons whose existing rates of remuneration exceed the rates herein prescribed shall not be prejudiced by this Order either by a reduction in existing rates or by replacement by another person or other persons at lower rates, nor shall employers be prevented from recognising special ability or responsibility.

13. For the purpose of this Schedule the term "men" means males of 18 years of age and over.

14. Any question which arises as to the interpretation of these provisions shall be determined by the Minister of Munitions.

STATUTORY RULES AND ORDERS,
1917, No. 489.

MUNITIONS OF WAR.

Employment and Remuneration.


Directions relating to the Employment and Remuneration of Women of 18 years of age or over on Munitions Work of a Class which prior to the War was customarily done by Men of 18 years of age or over in Districts where such work was carried on.

NOTE.—(1) These directions are on the basis of the setting up of the machines being otherwise provided for.

(2) These directions are confined to the War period and are subject to the observance of the provisions of Schedule II. of the Munitions of War Act, 1915.

(3) Proposals under paragraph 1 (a) (ii) of these directions for advances to classes of women upon the time rates prescribed by paragraph 1 (a) (i) are proposals for changes in rates of wages within Section 4 (2) of the Munitions of War Act, 1915, and must accordingly be submitted to the Minister of Munitions for his sanction.
1. (a) (i). Women employed on time on work customarily done by men shall, except as provided in paragraphs 1 (a) (ii) and 1 (b), be paid:—

Where the working week is 48 hours, 24s.

Where the working week is less than 48 hours, 24s. for the working week and for additional hours, if any, worked up to 48.

Where the working week exceeds 48 hours, as follows:—

<table>
<thead>
<tr>
<th>Hours</th>
<th>£ s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>1 4 6</td>
</tr>
<tr>
<td>50</td>
<td>1 5 0</td>
</tr>
<tr>
<td>51</td>
<td>1 5 6</td>
</tr>
<tr>
<td>52</td>
<td>1 6 0</td>
</tr>
<tr>
<td>53</td>
<td>1 6 6</td>
</tr>
<tr>
<td>54</td>
<td>1 7 0</td>
</tr>
</tbody>
</table>

(a) (ii). Women employed on time, (a) on work of a class customarily done by semi-skilled men, or (b) on work of a specially laborious or responsible nature, or (c) where special circumstances exist, shall be paid according to the nature of the work and the ability of the women, but in no case less than the time rates specified in paragraph 1 (a) (i).

(a) (iii). Overtime, night-shift, Sunday and holiday allowances as customarily paid to men shall be paid to the women to whom paragraphs 1 (a) (i) and 1 (a) (ii) refer. The basis for overtime shall be the working week for women in the establishment in question. For this purpose, the working week for women shall in no case be reckoned as less than 48 hours or more than 54 hours. The rate for overtime for women other than those referred to in paragraph 1 (a) (ii) and 1 (b) shall be computed on the basis of 24s. for 48 hours.

(b) (i). Women employed on the work customarily done by fully-skilled tradesmen shall in all cases be paid as from commencement the time rates of the tradesmen whose work they undertake.

(b) (ii). A woman shall be considered as not employed on the work customarily done by fully-skilled tradesmen, but a part or portion only thereof, if she does not do the customary setting up, or when there is no setting up, if she requires skilled supervision to a degree beyond that customarily required by fully-skilled tradesmen undertaking the work in question.

(b) (iii). Women who undertake part or portion only of the work customarily done by fully-skilled tradesmen shall serve a probationary period of three months. The wages of such women for this period shall be reckoned as follows:—

They shall be rated for a period of four weeks at the time rate of wages to which they are entitled under these directions when employed on time, and from that rate shall then rise from the beginning of the fifth week until the end of the thirteenth week by equal weekly increases to the district time rate of the fully-skilled
tradesman, and shall thereafter be rated at the district rate of the tradesman whose work they are in part or portion undertaking.

(b) (iv). In any case where it is established to the satisfaction of the Minister that additional cost is being incurred by extra setting up or skilled supervision due to the employment of women in place of fully-skilled tradesmen, the rates payable to women under these directions may, with the sanction of the Minister, be subject, for so long as such additional cost is incurred, to deductions not exceeding 10 per cent. to meet such additional cost. Provided that no women shall in any case be paid at lower rates than those prescribed by paragraph I (a) (i) of these directions.

(b) (v). No woman shall be called upon to serve more than one probationary period.

(b) (vi). Every woman who has served the probationary period shall receive from her employer a certificate to that effect.

(b) (vii). Any time immediately before the date on which these directions take effect during which a woman has been employed on part or portion of the work customarily done by fully-skilled tradesmen shall be reckoned in diminution or extinction as the case may be of the probationary period prescribed by these directions.

(b) (viii). The same overtime, night-shift, Sunday and holiday allowances shall be paid to women employed on the work customarily done by fully-skilled tradesmen or part or portion thereof as are customarily paid to the tradesmen. The basis for overtime for such women shall be on the working week for the tradesmen in the establishment in question. For this purpose the working week for such women shall be the same as that of the tradesmen.

2. Where women are prevented from working owing to breakdown, air raids or other causes beyond their control, they shall be paid for the time so lost at three-fourths of their time rate unless they are sent home.

3. Women shall not be put on piece work or premium bonus system until sufficiently qualified. The period of qualification on shell work shall not exceed four weeks without the express sanction of the Minister of Munitions.

4. Where women are employed on piece work they shall be paid the same piece work prices as are customarily paid to men for the same job.

5. Where women are engaged on premium bonus systems, the time allowed for the job shall be that customarily allowed to men for the same job, and the earnings of the women shall be calculated on the basis of the man’s time rate.

6. Where the job in question has not hitherto been done on piece work or premium bonus system in the establishment in question,
the piece work price, or the time allowed, shall be based on a similar job previously done by men, on piece work or premium bonus system as the case may be.

7. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece work price or time to be allowed, the price or the time to be allowed shall be so adjusted that the woman shall receive the same percentage over the time rate of the class of men customarily employed on the job as such man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

8. The principle upon which these directions proceed is that on systems of payment by results equal payment shall be made to women as to the men for an equal amount of work done.

9. Piece work prices and premium bonus basis times shall be fixed by mutual agreement between the employer and the woman or women who perform the work.

10. On piece work every woman other than a woman to whom paragraph 1 (b) relates shall be guaranteed, irrespective of her piece work earnings, the time rate prescribed by paragraph 1 (a) (i), or where special circumstances exist such higher time rate as the Minister of Munitions may direct. Every woman to whom paragraph 1 (b) relates shall be guaranteed the time rate prescribed by paragraph 1 (b).

Debit balances shall not be carried forward from one week to another.

11. On premium bonus systems every woman other than a woman to whom paragraph 1 (b) relates shall, in all cases, be paid the time rate prescribed by paragraph 1 (a) (i), or where special circumstances exist, such higher time rate as the Minister of Munitions may direct. Every woman to whom paragraph 1 (b) relates shall in all cases be paid the time rate prescribed by paragraph 1 (b).

12. Overtime and night-shift and Sunday and holiday allowances shall be paid to women employed on piece work or premium bonus system on the same conditions as customarily prevail in the case of men for time work.

13. Piece work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

14. All wages and balances shall be paid to women through the office.

15. For the purpose of these directions, the term "woman" or "women" means a woman or women of the age of 18 years or over, and the term "man" or "men" means a man or men of the age of 18 years and over.

16. Any question which arises as to the interpretation of these directions shall be determined by the Minister of Munitions.
REMUNERATION OF WOMEN AND GIRLS

STATUTORY RULES AND ORDERS,
1918, No. 546.

MUNITIONS OF WAR.

Employment and Remuneration.
The Consolidated Women’s Wages Order, dated May 8, 1918, made by the Minister of Munitions in pursuance of Section 6 of the Munitions of War (Amendment) Act, 1916 (5 & 6 Geo. 5, c. 99), as amended by Section 4 of the Munitions of War Act, 1917 (7 & 8 Geo. 5, c. 45).

DIRECTIONS RELATING TO THE REMUNERATION OF WOMEN AND GIRLS FOR MUNITIONS WORK.

NOTE.—These directions are confined to the War period, and are subject to the observance of the provisions of Schedule II. of the Munitions of War Act, 1915.

PART I.—Work of a Class which prior to the War was customarily done by Men in Districts where such Work was carried on.

Time Workers.

1. Women employed on work customarily done by men shall be paid not less than 6d. per hour, with a minimum of 24s. per week. Where the working week is less than 48 hours, 24s. shall be paid for the working week and for additional hours up to 48.

2. Women employed on work of a class customarily done by semi-skilled men shall be paid according to the nature of the work and the ability of the women.

3. (a) Women employed on the work customarily done by fully-skilled tradesmen shall in all cases be paid as from commencement the time rates of the tradesmen whose work they undertake.

(b) A woman shall be considered as not employed on the work customarily done by fully-skilled tradesmen, but a part only thereof, if she does not do the customary setting up or, when there is no setting up, if she requires skilled supervision to a degree beyond that customarily required by fully-skilled tradesmen undertaking the work in question.

(c) Women who undertake part only of the work customarily done by fully-skilled tradesmen shall serve a probationary period of three months. The wages of such women for this period shall be reckoned as follows:

They shall be rated for a period of four weeks at the time rate of wages to which they were entitled under these directions when employed on time, and from that rate shall then rise from the beginning of the fifth week until the end of the thirteenth week by equal weekly increases to the district time rate of the fully-skilled tradesman, and shall thereafter be rated at the district time rate of the tradesman whose work they are in part undertaking.
(d) In any case where it is established to the satisfaction of the Minister that additional cost is being incurred by extra setting up or skilled supervision due to the employment of women in place of fully-skilled tradesmen, the rates payable to women under these directions may, with the sanction of the Minister, be subject, for so long as such additional cost is incurred, to deductions not exceeding 10 per cent. to meet such additional cost. Provided that no woman shall in any case be paid at lower rates than those prescribed by paragraph 1 of these directions.

(e) No woman shall be called upon to serve more than one probationary period.

(f) Every woman who has served the probationary period shall receive from her employer a certificate to that effect.

(g) Any time immediately before the date on which these directions take effect during which a woman has been employed on part of the work customarily done by fully-skilled tradesmen shall be reckoned in diminution or extinction as the case may be of the probationary period prescribed by these directions.

4. Girls under 18 years of age employed as time workers on work customarily done by men shall be paid as follows:—

<table>
<thead>
<tr>
<th>Working Week.</th>
<th>17 to 18 years</th>
<th>16 to 17 years</th>
<th>15 to 16 years</th>
<th>Under 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>48 hours</td>
<td>s. d.</td>
<td>16 0</td>
<td>14 0</td>
<td></td>
</tr>
<tr>
<td>49 hours</td>
<td>20 6</td>
<td>18 6</td>
<td>16 6</td>
<td>14 6</td>
</tr>
<tr>
<td>50 hours</td>
<td>21 0</td>
<td>19 0</td>
<td>17 0</td>
<td>15 0</td>
</tr>
<tr>
<td>51 hours</td>
<td>21 6</td>
<td>19 6</td>
<td>17 6</td>
<td>15 6</td>
</tr>
<tr>
<td>52 hours</td>
<td>22 0</td>
<td>20 0</td>
<td>18 0</td>
<td>16 0</td>
</tr>
<tr>
<td>53 hours</td>
<td>22 6</td>
<td>20 6</td>
<td>18 6</td>
<td>16 6</td>
</tr>
<tr>
<td>54 hours</td>
<td>23 0</td>
<td>21 0</td>
<td>19 0</td>
<td>17 0</td>
</tr>
</tbody>
</table>

and so on for working weeks in excess of 54 hours.

Where the working week is less than 48 hours, the rate above prescribed for 48 hours shall be paid for the working week and for additional hours up to 48.

Workers on Systems of Payment by Results.

5. The principle upon which the following directions proceed is that, on systems of payment by results, equal payment shall be made to women as to the men for an equal amount of work done.

6. Women employed on piece work shall be paid the piece work prices customarily paid for the same or similar work when done by men.

7. Women employed on premium bonus system shall be allowed the time customarily allowed to men for the same or similar work, and their earnings shall be calculated on the basis time rate used in the case of men.
8. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece work price or time allowance, the price or time allowance shall be so adjusted that a woman would receive the same percentage over the time rate of the class of men customarily employed on the job as such man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

9. Girls under 18 years of age employed as piece workers or premium bonus workers on work of a class customarily done by men shall be paid as follows:

(a) In the case of piece workers—

17 to 18 years—the piece work price paid or allowed for the same or similar work when customarily done by men, less 10 per cent.
16 to 17 years—Ditto, less 20 per cent.
Under 16 years—Ditto, less 30 per cent.

(b) In the case of premium bonus workers—

17 to 18 years—the time allowed shall be that customarily allowed to men for the same or similar work, and the earnings of the girls shall be calculated on the basis of the man's time rate, less 10 per cent.
16 to 17 years—Ditto, less 20 per cent.
Under 16 years—Ditto, less 30 per cent.

PART II.—Work of a Class which prior to the War was not recognised as Men's Work in Districts where such Work was Carried on.

Time Workers.

10. Women and girls shall be paid as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women, 18 years and over</td>
<td>5½d. per hour</td>
</tr>
<tr>
<td>Girls, 17</td>
<td>4½d.</td>
</tr>
<tr>
<td>16</td>
<td>3½d.</td>
</tr>
<tr>
<td>15</td>
<td>3d.</td>
</tr>
<tr>
<td>under 15 years</td>
<td>2½d.</td>
</tr>
</tbody>
</table>

11. In an establishment in which a custom prevailed prior to the war of differentiating between the rates of wages paid to women and girls employed in warehouses and those otherwise employed, an application may be made to the Minister of Munitions for special directions as to the rates of wages to be paid to women and girls employed in warehouses.

12. Women and girls may be rated at ½d. per hour less than their appropriate time rate under paragraph 10 for probationary periods not exceeding one month from the date when they are first employed, and no woman or girl shall be called upon to serve more than one probationary period.

Workers on Systems of Payment by Results.

13. Piece work prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her
time rate, except in the case of an establishment where an application that this provision should be dispensed with, either generally, or, as regards any particular class of workpeople, has been approved by the Minister of Munitions. Subject to compliance with the foregoing provisions of this paragraph, the earnings of women and girls for work done by them in any establishment at the date of this Order on premium bonus system shall in that establishment be calculated on the basis of the following time rates:—

<table>
<thead>
<tr>
<th>Workers, 18 years and over</th>
<th>4½d. per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; 17, &quot; under 18</td>
<td>3½d. &quot;</td>
</tr>
<tr>
<td>&quot; 16, &quot; 17</td>
<td>3d. &quot;</td>
</tr>
<tr>
<td>&quot; 15, &quot; 16</td>
<td>2½d. &quot;</td>
</tr>
<tr>
<td>&quot; under 15 years</td>
<td>2d. &quot;</td>
</tr>
</tbody>
</table>

**Part III.—Woodwork Processes other than for Aircraft.**

**Time Workers.**

14. Women and girls shall, for the first eight weeks, be paid as follows:—

<table>
<thead>
<tr>
<th>Women, 18 years and over</th>
<th>5d. per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; 17 &quot; under 18</td>
<td>4d. &quot;</td>
</tr>
<tr>
<td>&quot; 16 &quot; 17</td>
<td>3d. &quot;</td>
</tr>
<tr>
<td>&quot; 15 &quot; 16</td>
<td>2½d. &quot;</td>
</tr>
<tr>
<td>&quot; under 15 years</td>
<td>2d. &quot;</td>
</tr>
</tbody>
</table>

15. Women and girls shall, after eight weeks, be paid as follows:—

<table>
<thead>
<tr>
<th>Women, 18 years and over</th>
<th>6d per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; 17 &quot; under 18</td>
<td>5d. &quot;</td>
</tr>
<tr>
<td>&quot; 16 &quot; 17</td>
<td>4d. &quot;</td>
</tr>
<tr>
<td>&quot; 15 &quot; 16</td>
<td>3½d. &quot;</td>
</tr>
<tr>
<td>&quot; under 15 years</td>
<td>3d. &quot;</td>
</tr>
</tbody>
</table>

16. Women and girls employed on machine woodwork processes shall, subject to the provisions of paragraphs 14, 15 and 31, be paid according to the nature of the work and their ability.

17. No girl under 18 years shall be employed on any machine process without the sanction of the Minister of Munitions.

**Workers on Systems of Payment by Results.**

18. Piece work prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her time rate.

Provided that women or girls employed on piece work or premium bonus system on work which in the establishment concerned was previously done by men on piece work or premium bonus system shall be paid according to the provisions of paragraphs 5, 6, 7, 8 and 9.
PART IV.—Aircraft.

A. Woodwork Processes.

Time Workers.

19. Women and girls employed on woodwork processes for aircraft, other than machine processes, shall be paid according to the provisions of paragraphs 14 and 15.

20. Women employed on machine woodwork processes for aircraft shall be paid as follows:

   For the first four weeks of such employment .. 5½d. per hour
   For the second four weeks of such employment .. 6½d. „
   On completion of eight weeks of such employment .. 7½d. „

21. Women and girls employed as inspectors and gaugers on woodwork for aircraft shall, after eight weeks, be paid at the rate of ½d. per hour more than the rates mentioned in paragraph 15 hereof.

22. No girl under 18 years shall be employed on any machine process without the sanction of the Minister of Munitions.

23. Where the employment of girls under 18 on machine woodwork processes for aircraft has been sanctioned by the Minister of Munitions they shall be paid as follows, on commencement, and shall receive an increase of 1d. per hour after the first four weeks and an additional 1d. per hour on completion of 8 weeks of such employment:

   Girls, 17 years and under 18 .. .. .. 4½d. per hour
   „ 16 „ „ „ „ „ „ „ „ „ 3½d. „
   „ 15 „ „ „ „ „ „ „ „ „ „ 3d. „
   „ under 15 years .. .. .. .. 2½d. „

Workers on Systems of Payment by Results.

24. Piece work prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her time rate.

Subject to compliance with the foregoing provisions of this paragraph the earnings of women and girls for work done in any establishment at the date of this Order on premium bonus system shall, in that establishment, be calculated on the basis of the following time rates:

   Workers, 18 years and over .. .. .. 5½d. per hour
   „ 17 „ „ „ „ „ „ „ „ „ 4½d. „
   „ 16 „ „ „ „ „ „ „ „ „ „ 3½d. „
   „ 15 „ „ „ „ „ „ „ „ „ „ „ 3d. „
   „ under 15 years .. .. .. .. 2½d. „

Provided that women or girls employed on piece work or premium bonus system on work which in the establishment concerned was previously done by men on piece work or premium bonus system shall be paid according to the provisions of paragraphs 5, 6, 7, 8 and 9.
B. Sheet Metal Work for Aircraft.

(i) Hand Processes.

Time Workers.

25. Women employed wholly or mainly on hand processes in the beating of metal to shape from the plain sheet, except the processes specified in paragraph 26 (a) and (b), shall be paid according to the provisions of paragraph 3.

26. Women and girls employed on—

(a) the making of straight folds (whether beaded or not), straight bends and straight flanges;
(b) the making of bends and flanges (if in one plane) on other than straight work;
(c) hand processes other than the beating of metal to shape from the plain sheet,

shall be paid as follows:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Women, 18 years and over</td>
<td>7d. per hour</td>
<td></td>
</tr>
<tr>
<td>Girls, 17 &quot; under 18</td>
<td>6d. &quot;</td>
<td></td>
</tr>
<tr>
<td>16 &quot; &quot; 17</td>
<td>5d. &quot;</td>
<td></td>
</tr>
<tr>
<td>15 &quot; &quot; 16</td>
<td>4½d. &quot;</td>
<td></td>
</tr>
<tr>
<td>&quot; under 15 years</td>
<td>4d. &quot;</td>
<td></td>
</tr>
</tbody>
</table>

The rates prescribed by this paragraph shall be subject to an increase of ½d. per hour after four weeks' experience and to an additional ½d. per hour after eight weeks' experience.

Workers on Systems of Payment by Results.

27. Women and girls shall be paid according to the provisions of paragraphs 5, 6, 7, 8 and 9.

(ii) Machine Processes.

28. Women and girls employed as time workers, or on systems of payment by results, on machine processes shall, subject to the provisions of paragraph 29, be paid according to the provisions of Part II. of these directions.

C. General Aircraft Work.

29. Women employed as time workers on Aircraft work in any establishment wholly or mainly engaged in the manufacture or repair of Aircraft shall not in any case be paid a less rate than 6d. per hour after the first eight weeks.

Part V.—General Provisions.

30. The provisions of Parts I. and II. of these directions shall not apply to any of the work (other than General Aircraft Work) mentioned in Parts III. and IV., except in so far as those provisions are specifically applied by Parts III. and IV.

31. Where special circumstances exist, women and girls may be paid in excess of the rates prescribed in these directions. In particular,
and without prejudice to the foregoing provisions, they shall be so paid when they are employed—

(a) in danger zones,
(b) on work injurious to health,
(c) on specially laborious or responsible work, or
(d) on work requiring special ability.

Rates of wages in excess of the respective rates prescribed in these directions shall not be put into operation for any class of workers without the previous sanction of the Minister of Munitions.

32. The same overtime, night-shift, Sunday and holiday allowances shall be paid to women and girls to whom Parts I., III. or IV. (except paragraph 28) of these directions apply as are paid to men employed on work of the same class. For this purpose, the working week shall be the working week for women and girls in the establishment in question, but shall in no case be reckoned as less than 48 hours. Women and girls to whom Part II. of these directions applies shall be paid—

(a) in accordance with the custom of the establishment;
(b) where no such custom exists, in accordance with the custom prevailing in similar establishments or trades in the district;
(c) where there are no similar establishments or trades in the district, then in accordance with the rates and conditions prevailing in the nearest district in which the general industrial conditions are similar;
(d) where (a), (b) and (c) cannot be applied, such allowances shall be paid at such rates and on such conditions as the Minister of Munitions may direct.

33. Where women or girls are prevented from working owing to breakdown, air raids or other causes beyond their control, and no custom exists in the establishment as to payment in respect of time so lost in excess of what is hereby laid down, they shall be paid for the time so lost at three-fourths of their time rate unless they are sent home.

34. Where women or girls are employed on systems of payment by results their time rates shall be guaranteed and paid irrespective of earnings. Debit balances shall not be carried forward from one week to another.

35. Women or girls shall not be put on systems of payment by results until sufficiently qualified. The period of qualification on shell work shall not exceed four weeks without the express sanction of the Minister of Munitions.

36. Piece work prices and premium bonus time allowances shall be fixed by mutual agreement in accordance with these directions between the employer and the worker or workers who perform the work.
37. Piece work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

38. These directions shall not operate to prejudice the existing remuneration of any person or persons.

39. All wages and balances shall be paid to women and girls through the Office.

40. For the purpose of these directions, the term "woman" or "women" means a woman or women of the age of 18 years or over, and the term "man" or "men" means a man or men of the age of 18 years and over.

41. In addition to the amounts payable to women or girls under any of the foregoing directions there shall be paid over and above those amounts to all women and girls whilst employed on munitions work, whether working on time or on a system of payment by results, an advance which in the case of women of 18 years of age and over shall be 6s. per full ordinary week, and in the case of girls under 18 years of age 3s. per full ordinary week.

This advance is to be taken into account in the calculation of payment for overtime, night-shift, Sunday and holiday work, but is not otherwise to apply to or affect time rates, premium bonus rates or piece work prices, and is not to be taken into account as part of the time rates for the purpose of fixing new piece work prices or premium bonus rates. This advance shall not apply in establishments where the payment of alternative war advances has been sanctioned by the Minister of Munitions.

42. These directions shall come into operation in each establishment named in the second schedule hereto as from the beginning of the first full pay occurring after either the receipt of the Order by the establishment or the 1st day of June, 1918, whichever may be the later.

43. Compliance with these directions shall exempt the owner of an establishment named in the second schedule hereto and any contractor or sub-contractor employing labour therein from the obligation to comply with any previous Order of the Minister of Munitions regarding the wages of female workers employed in that establishment on munitions work.

44. Any question which arises as to the interpretation of these directions shall be determined by the Minister of Munitions.
APPENDIX IV.

Two Illustrations of the Operation of Circular L.2.

1. WAGES QUESTION IN MANCHESTER.¹

The purpose of our visit was to enquire into a number of cases in which it is alleged that the letter or the spirit of Circular L.2 is being evaded or defied in Manchester. Complaints involving about 16 different firms were made in a letter from Mr. Binns, the Local Delegate of the Amalgamated Society of Engineers, dated 7 April. Our visit was arranged for an earlier date, but was unavoidably postponed, and in the interval two events have somewhat modified the situation. There has been an agreement between the Employers’ Federation and the Workers’ Union fixing rates for women and girls of various ages on work outside the scope of L.2, an agreement similar to the Midlands Agreement but a little more generous in its terms. Neither the Amalgamated Society of Engineers nor the National Federation of Women Workers were parties to the Manchester Agreement, nor do they accept its terms. They regard it as a manoeuvre of the employers to defeat their claims. All the same, it has in many cases improved the wages of women, and, as we pointed out, the Ministry can hardly avoid accepting its condition as “Fair wages” unless or until some other terms are awarded. The minimum wage it fixes for women of 21 is 18s. a week, but it provides for a probationary period of 2 months, during which they may be paid 3s. a week less.

Possibly, as a counterstroke to this Agreement, the Amalgamated Society of Engineers and the National Federation of Women Workers have written jointly to Sir H. L. Smith at the Board of Trade, reporting the same series of cases, and others, with a request for arbitration. What they desire is a visit of Mr. Lynden Macassey’s Special Tribunal. It was, however, considered desirable that our visit of enquiry should proceed, in the hope that we might at least clear the ground for subsequent arbitration. In our opinion there will have to be arbitration, preferably on the spot, to fix rates for work not covered by L.2, especially for machine-tool work formerly done by boys or apprentices, but we can claim to have narrowed the issue so far that two or three test cases may now be expected to solve all the matters in dispute. In general, where L.2 is clearly applicable, it is being applied—e.g., on Shell work. In one or two doubtful cases we were able to settle the doubt by reference to previous decisions of the Ministry, and in these cases our opinion was accepted. The interpretation that the

¹ This report was produced after a special enquiry made at Manchester in April, 1916, on behalf of the Wages Section, as a result of frequent complaints made in the Press and to the Ministry that the provisions of L.2 were not being observed.
age of 18 constitutes a "man" for the purposes of L.2 was new to the employers, and in one case they were inclined to contest it.

The only other point at issue in the interpretation of L.2, when it was admitted to apply, concerns the reckoning of hours per week. The great majority of engineering firms in Manchester work a 53 hour week normally, but one or two important firms work 48. One or two firms in the former class have adopted a shorter week for women, and have made a proportionate reduction in the 20s rate. Assuming that the custom of the district is to be determined by the practice of the majority, and that the standard week in Manchester is 53 hours, such a reduction is, as we told Mr Binns, in accordance with the terms of L.2 and with the general practice of the country. This, however, does not satisfy the Amalgamated Society of Engineers or the National Federation of Women Workers, who contend that the women ought at least to have the opportunity of earning 20s. even even if they have to work 53 hours for it, and that as firms working a short week have nevertheless to pay the full standard rate to men, they ought to pay full rates to women.

But the real kernel of the dispute lies in the Machine Tool trade, where girls and women are replacing boys and youths. Boy labour has been very freely employed on such operations as turning, shaping, slotting, drilling, and gear-cutting. In carrying out the Minister's instructions for dilution, apprentices (and men are called apprentices at Armstrong's up to the age of 23) have been moved up to replace skilled men, boys have taken the place of apprentices, and girls have taken the place of boys at similar wages. This would seem equitable enough at first sight, but the Amalgamated Society of Engineers is not content. The firm, they contend, is the gainer by the transaction and labour is the loser, because the promoted youth gains no promotion of wages, and the girl labour is too cheap. They probably fear that girl labour has come to stay. Most of the firms we visited declared that they much preferred boys, and had only introduced girls under pressure from the Ministry. In some cases they averred that they could still get plenty of boys and would turn the girls out if girl labour were made any more costly. In other cases, however, it was not denied that the girls would be retained if possible. It was made a charge against one firm that in engaging the girls foremen had told them that they were being taken on as apprentices. It appears to us that there is need for a test case on this point to award satisfactory wages to girls of various ages replacing boys and youths of various ages in this trade, and to fix some proportionate bonus or advance for the apprentice doing repetition work of a skilled character. The argument that an apprentice's wages cannot fairly be applied to a woman doing his work because the youth is paying for his tuition while the woman is not appeared to be new to the employers.

In some cases the claim was that a woman was doing skilled work and should have a skilled man's wage. We saw no clear cases in which a woman was doing the whole of a fully-skilled man's work.
But there were some dubious cases where a woman was doing very nearly the same work as a moderately-skilled apprentice of 20, or where work properly called skilled work was being done by women owing to certain alterations of the machine. In such cases we advised that the 20s. rate should be applied.

In general we found little to substantiate the charge that there had been a sort of organised evasion of the rules by employers in Manchester. There were several difficult border-line cases, but there appeared to be little foundation for the condition of "seething unrest" which we had been led to expect, nor did we detect any clear symptoms of such a condition. Undoubtedly there is a great deal of dissatisfaction against two of the largest firms, but this is probably due to a great degree to the unconciliatory attitude of these firms towards their employees and their representatives.

In our judgment the best way of handling the present situation would be for the Special Tribunal to visit Manchester as soon as possible and hear the claims against these two firms as test cases.

A detailed note on the various cases investigated will follow shortly. It was impossible to complete the investigation in a single week.

2. Women Oxy-acetylene Welders.

The case of the Women Oxy-acetylene Welders, a few months later, shows the difficulty of defining the meaning of skilled work with regard to L.2, and of fixing the duration of a probationary period and the position of the semi-skilled worker, especially after training.

Women had begun to learn oxy-acetylene welding at a private training school in January, 1916; 27 of the pupils of this school started work in March at the Hendon Aircraft Factory. They received 7d. to 8d. an hour, while other women trained by the firm started at 4d., rising to 5d.

A trade union was formed among these trained women, which, in July, asked the employers for rates of pay "in accordance with L.2." They received 8d. an hour, whereas men were paid a starting wage of 10½d., rising to 11½d. The Society asked for a rise to similar rates for themselves, and that other women without training should, within a reasonable time, receive the wages of the male improver.

The London Engineering Employers refused to pay more than 8d. an hour, on the ground that the work was not skilled. On 7 August, the Women Welders' Society applied for arbitration to the Chief Industrial Commissioner's Department and were referred to the Special Wages Tribunal of the Ministry of Munitions, before which the secretary attended on 26 October to prove that her members belonged to a fully-skilled trade.

Two special investigations into conditions in the industry were made in August and October by officers of the Ministry. The main
difficulty in the case was that oxy-acetylene welding was a new process, dating from about 1900, with very little regular apprenticeship. Men in the trade as a rule received 11d. or 1s. an hour, but this varied, and in a case heard in March, 1916, the Committee on Production refused to sanction the payment of the coppersmith’s high rate of wages if he were transferred from his own trade to this process.

The investigators described the work done by most of the women as “not semi-skilled in the sense of tool-set automatic machine work, but of a somewhat higher grade of skill in which much patience, steady eyesight, and delicate and careful application are required in order to make a clean, smooth, and perfect joint.”

Finally the Tribunal gave its decision on 17 February, 1917, deciding the question of skilled rates and probation.

It awarded 8d. an hour to the trained woman on starting, rising after three months’ probation to the fully-skilled man’s rates; and to the semi-skilled worker the £1 minimum, as in Order 491 (a) (1), rising to 8d. an hour after 6 months.

An identical award was secured by the same Society against another group of aviation firms in November of the same year.
APPENDIX V.

Agreements between the Workers’ Union and Employers’ Associations.

I. BIRMINGHAM.

MEMORANDUM OF AGREEMENT
BETWEEN THE MIDLAND EMPLOYERS’ FEDERATION
AND THE WORKERS’ UNION

with reference to
Wages of Female Munition Workers in the Birmingham area, as
defined in the Agreement of 4 January, 1915, between the Midland
Employers’ Federation and the Engineers and Allied Trade Societies’

(1) Definition of Munition Worker.—One who is covered by the
provisions of the Munitions of War Act, 1915, and the Orders in
Council.

(2) It is understood that the £1 minimum recently recommended
by the Ministry of Munitions is to apply to women now doing work
which prior to the War was done only by men.

(3) The Schedule agreed upon is as follows :

<table>
<thead>
<tr>
<th>Age</th>
<th>Day Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 years</td>
<td>7s. per week</td>
</tr>
<tr>
<td>15</td>
<td>8s.</td>
</tr>
<tr>
<td>16</td>
<td>9s.</td>
</tr>
<tr>
<td>17</td>
<td>10s.</td>
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<tr>
<td>18</td>
<td>11s.</td>
</tr>
<tr>
<td>19</td>
<td>13s.</td>
</tr>
<tr>
<td>20</td>
<td>15s.</td>
</tr>
<tr>
<td>21</td>
<td>16s.</td>
</tr>
</tbody>
</table>

. All bonuses to merge.

(4) Where these day rates do not give to the day worker any
advance, it is agreed that an increase equal to that recently given to
boys and youths should be granted to such women, and to be regarded
as a War Wage, viz. :

Under 17 years   1s. advance on day rates
17 and under 19  1s. 6d. ” “ ” “
19 and over      2s. ” “ ” “

All recent advances to be considered as part of the settlement
under this Clause.

(5) (a) No general advances on piece work prices.

(b) It is understood that the Munitions Act does not permit
of any restrictions of earnings or output, but in the fixing
of a piece price it is expected that the price will yield not
less than 25 per cent. on day rates to a competent worker.
(c) Owing to the varying ages of girls and women employed on the same work, the usual balance on day rates for piece work can only be calculated on the schedule rate of wages for the girls and women employed on that work at normal times.

(d) If an operative working full time fails for some considerable period to make the day rate which corresponds to her schedule age, a certificate of release would not be withheld by the employer.

(6) The terms of this agreement are to remain in force and unaltered during the period of the War, and the new rates are to commence to operate from the last making-up day immediately prior to Saturday, 30 October, 1915, and will be paid as soon as practicable.

(7) This settlement will be communicated to the members of the Midland Employers' Federation if and when the Controlled Establishments receive the formal sanction from the Ministry of Munitions to the above terms.

Signed—

For The Workers' Union—
JOHN BEARD, President.
JULIA VARLEY, Women's Organiser.

For The Midland Employers' Federation—
T. HARRIS SPENCER, Chairman.
A. WARNE BROWNE, Secretary.

16 November, 1915.

II. MANCHESTER.

SUMMARY OF AGREEMENT BETWEEN THE
MANCHESTER DISTRICT ENGINEERING EMPLOYERS' ASSOCIATION
and

THE WORKERS' UNION (16 April, 1916).
Agreement re Rates of Wages to female workers not covered by provisions of Circular L.2.

1. Wages.

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>7s.</td>
</tr>
<tr>
<td>15</td>
<td>8s.</td>
</tr>
<tr>
<td>16</td>
<td>9s.</td>
</tr>
<tr>
<td>17</td>
<td>11s.</td>
</tr>
<tr>
<td>18</td>
<td>14s.</td>
</tr>
<tr>
<td>19</td>
<td>16s.</td>
</tr>
<tr>
<td>20</td>
<td>17s.</td>
</tr>
<tr>
<td>21 and over</td>
<td>18s.</td>
</tr>
</tbody>
</table>

2. All existing War bonuses to merge in the above.

3. The foregoing to be the minimum day rates. No alterations to be made in existing piece prices.

4. During a probationary period of two months, 2s. and 3s. lower wages to be paid.

5. Overtime payment. Time and a quarter for first two hours, time and a half after this, each day to stand by itself.
III. The Black Country.

Tuesday, 16 May, 1916.

A MEMORANDUM OF AGREEMENT BETWEEN THE MIDLAND EMPLOYERS' FEDERATION
and
THE WOLVERHAMPTON ENGINEERING EMPLOYERS' UNION of the one part, and THE WORKERS' UNION
of the other part.

1. The Workers' Union desired that the Agreement dated 16 November, 1915, between the Midland Employers' Federation and the Workers' Union in respect of Female Munition Workers in the Birmingham area should be extended to the Black Country.

The effect of such an extension would be to exclude from an increase of wages many women and girls employed on work identical with that being done by munition workers and under identical conditions in the Black Country.

2. This Agreement, therefore, refers to Women and Girl Workers in the Black Country engaged upon all classes of work whether for the purposes of war, civil or domestic use; whether for the Government direct, or for other contractors, and whether for this country or abroad.

3. The area known as the Black Country is that coloured pink on four identical maps supplied to the Chief Industrial Commissioner, the Ministry of Munitions, the Workers' Union, and to the Midland Employers' Federation, and embraces the towns and places shown in the Appendix "A" hereto.

4. The following is the Schedule now agreed upon:

<table>
<thead>
<tr>
<th>Age</th>
<th>Day Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 years</td>
<td>6s. 0d.</td>
</tr>
<tr>
<td>15 &quot;</td>
<td>7s. 0d.</td>
</tr>
<tr>
<td>16 &quot;</td>
<td>8s. 0d.</td>
</tr>
<tr>
<td>17 &quot;</td>
<td>10s. 0d.</td>
</tr>
<tr>
<td>18 &quot;</td>
<td>12s. 0d.</td>
</tr>
<tr>
<td>19 &quot;</td>
<td>13s. 0d.</td>
</tr>
<tr>
<td>20 &quot;</td>
<td>14s. 0d.</td>
</tr>
<tr>
<td>21 &quot;</td>
<td>15s. 0d.</td>
</tr>
</tbody>
</table>

and is hereby substituted for Schedule A. "Girls" in the Agreement dated 7 July, 1913, between the Midland Employers' Federation and Workers' Union and others.

5. (a) No general advance in piece work prices.

(b) It is understood that the Munitions Act does not permit of any restrictions of earnings or output, but in the fixing of a piece price it is expected that such price will yield not less than 25 per cent. beyond day rates to a competent worker.

6. Specific cases of inconsistency brought to the notice of the firms affected by this Agreement will receive proper consideration.
7. Nothing in this Agreement shall prejudice the right of the Union to apply for the enforcement of the provisions of Circular L.2 issued by the Ministry of Munitions of War, dated October, 1915.

8. The terms of this Agreement are to remain in force and unaltered during the period of the War, and the new rates are to become payable by all firms upon the usual pay-day first following the receipt of the official intimation from the Ministry of Munitions that same may be paid by the Controlled Establishments.

For The Midland Employers' Federation—
T. HARRIS SPENCER, Chairman.
A. Warne Browne, Secretary.

For the Wolverhampton Engineering Employers' Union—
CHARLES MARSTON, Chairman.
JOHN T. BUCK, Secretary.

For The Workers' Union—
JOHN BEARD, President.
JULIA VARLEY, Women's Organiser.

Appendix "A" referred to—

BLACK COUNTRY.

<table>
<thead>
<tr>
<th>Town</th>
<th>Town</th>
<th>Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilston</td>
<td>Halesowen</td>
<td>Stourbridge</td>
</tr>
<tr>
<td>Blackheath</td>
<td>Heath Town</td>
<td>Tipton</td>
</tr>
<tr>
<td>Brierley Hill</td>
<td>Himley</td>
<td>Walsall</td>
</tr>
<tr>
<td>Coseley</td>
<td>Lye</td>
<td>Wednesbury</td>
</tr>
<tr>
<td>Cradley</td>
<td>Old Hill</td>
<td>Wednesfield</td>
</tr>
<tr>
<td>Cradley Heath</td>
<td>Quarry Bank</td>
<td>Willenhall ;</td>
</tr>
<tr>
<td>Darlaston</td>
<td>Rowley Regis</td>
<td>and</td>
</tr>
<tr>
<td>Dudley</td>
<td>Sedgley</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX VI.

Notes on the work of the Special Arbitration Tribunal.

The history of the Special Arbitration Tribunal, though not part of the Labour Department of the Ministry, is interwoven with that of the regulation of munition workers’ wages, and has therefore been already recorded in part. Some points, however, need further treatment, for the whole of the Ministry’s policy towards women’s wages was to a great extent influenced by that of the Special Tribunal.

TERMS OF REFERENCE AND CONSTITUTION.

When constituted in March, 1916, in accordance with Section 8 of the Munitions of War Amendment Act of January, 1916, the Tribunal was given the following terms of reference:—

(1) To deal with any difference reported under Part I of the principal Act which relates to any matter on which the Minister has given or is empowered to give directions under Section 7 of the Amending Act and which is referred to the Tribunal by the Board of Trade for settlement.

(2) To advise the Minister on any question referred to the Tribunal by the Minister as to what directions are to be given by him under Section 7 of the Amending Act.

The members of the Tribunal in its original form were the following, “chosen either for their official experience or their special knowledge of the interests of employers and workpeople respectively,” 1 were:— Mr. Lynden Macassey, K.C. (Chairman), Mr. Allan Smith (Secretary, Engineering Employers’ Federation), Mr. Ernest Aves (Chairman of Trade Boards), Miss S. Lawrence (Women’s Trade Union League), Mr. F. S. Button (Amalgamated Society of Engineers), Mrs. Deane Streatfeild (formerly H.M. Inspector under the Home Office). Later in the year, in order to meet criticisms that the point of view of the employers—and especially of employers accustomed to deal with women’s labour—was inadequately represented, Mr. A. Warne Browne, secretary of the Midland Employers’ Federation, was added together with Mr. C. Duncan, M.P., general secretary of the Workers’ Union. Mr. G. C. Campbell, then an officer and later head of the Wages Section of the Ministry of Munitions, was secretary to the Tribunal until the spring of 1917, when he became its vice-chairman. The Tribunal was constituted on parallel lines with the Special Tribunal appointed at the same time to deal with men’s wages under dilution in accordance with Circular L.3. The two tribunals shared the services

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1 See description supplied to the Whitley Committee, 1-2-18, L.R. 142/82.
of several of their members, but the "L.3" Tribunal was only on two or three occasions called into action.

Proposals were made during the summer of 1917 for the decentralisation of the work of arbitration, and for the establishment of panels of the Tribunal in some half-dozen districts, empowered to hear local disputes, and make recommendations thereon for awards by the central body, which would thus have more leisure for the consideration of general questions. These proposals were not carried out; but the work was reorganised in the autumn of 1917, and the Tribunal reconstituted with the following membership:—The Hon. Alexander Shaw, M.P. (Chairman), Mr. J. C. Smith (late head of the Wages Section of the Ministry, Vice-Chairman), Mr. C. Kenrick (of the National Employers Federation), Mr. A. Glegg (of the Engineering Employers' Federation), Mr. G. Ryder (of the Amalgamated Society of Engineers), Mr. J. F. Cameron, Miss S. Lawrence, and Mrs. Deane Streatfeild, with Mr. F. S. Button, who was specially asked, in view of his most valuable service to the Tribunal as originally constituted, to serve as an advisory member in the intervals of his work for the Committee on Production. The members of the reorganised Tribunal agreed as far as possible to give whole time work in the provinces as well as in London, as required, and the Tribunal began a practice of holding arbitrations locally as well as in its London office.

Functions of the Tribunal.

As a court for compulsory arbitration under the Munitions Act, the Tribunal was to some extent a second version, on a different scale, of the Committee on Production, specialising on disputes over women's wages. Its position as a whole, was, however, different, first because it was possible under Section 6 of the Munitions Act of 1916 for the Ministry to issue statutory wages Orders, giving general application to the Tribunal's isolated awards; secondly, because it possessed, under the second clause of its construction, advisory as well as judicial functions. Upon it fell the responsibility of framing suggestions for the wages policy of the Ministry, and to it were accordingly referred questions about the application of the women's wages orders to the different trades, such as the manufacture of rubber, soap, screws, rope, files, porcelain, some firms in which might be technically engaged in "munitions," but were reluctant to adjust their wages to the level of the statutory orders; on the same grounds it dealt with problems about the inclusion under the Orders of different classes of workers—girls taking men's work, workers in low-paid country districts, warehouse women, fourteen-year-old girls just entering the trade—and of their payment at special rates, if included. It also considered the highly controversial proposals for the revision of Circular L.2, and claims for general advances of wages such as those made in April, August and December, 1917. The reference to its consideration of the scheme for a general consolidated Order to apply to the great majority of the munition trades, has already been recorded.

1 See Reports of Employers' Advisory Committee, L.R. 5581, etc.
LIMITATIONS.

In two directions its functions were limited: (1) "Interpretations" of the Munitions Act and of the Statutory Orders were in the hands of the Minister, and must be observed by the Tribunal. This appeared in the labyrinthine discussion of Circular L.2. (2) The definition of the term "munitions," and therefore of the applicability of the leaving certificate regulations upon which depended the scope of awards and statutory orders, fell technically within the powers of a munitions tribunal, not of the special Arbitration Tribunal. Pending the pronouncement of a munitions tribunal, legal opinion might be taken as to the scope of regulation. Thus, in the case of girls engaged in an occupation apparently so remote from "munitions" as "wrapping up cottar pins" (for railway maintenance), the legal advisors of the Ministry ruled that such work was "Munitions work, or in connection with munitions work," and, therefore, however inappropriately, subject to Order 9 of 1917.¹

RELATION TO THE WAGES SECTION.

The relation of the Tribunal to the Wages Section of the Labour Department was necessarily close, and was made closer by the fact that the secretary, subsequently vice-chairman of the Tribunal, was at the same time an officer of the Wages Section, and that the head of the Wages Section sat at first informally and from November 1916 until the reorganisation in the autumn of 1917 as a regular member on the Tribunal, when it met in its advisory capacity. The functions of the Wages Section and of the Tribunal were, however, quite distinct. Those of the one being administrative, those of the other judicial and advisory. In practice the "rulings" of the Wages Section were accepted equally with the "findings" of the Tribunal, but the latter alone had binding force.

METHODS.

As a court of arbitration, the Tribunal proceeded mainly by hearing the verbal statements of the disputants who appeared with their witnesses to make representations of their case. If these representations, made by the workers themselves with no undue formalities, were inadequate to establish the point most commonly in dispute, namely, the grade in which the work in question should be classified, they were supplemented by special enquiries made locally by the Ministry's Investigation or Labour Officers or by the technical experts of the Wages Section. On occasion members of the Tribunal, instead of or in addition to such investigations, made personal visits to the works concerned, and examined the workers and operations in dispute. Once, but only once (in July, 1917), during the period the Tribunal prescribed piece rates in a case (that of Strachan & Henshaw and the National Federation of Women Workers) in which the dispute turned on detailed processes of shell making. Such detailed examinations were specially necessary in differences turning on the degree of skill involved

¹ C.E. 340/4.
in a special operation, or on the question whether such an operation was "men's" or "women's" work.¹ Some rulings of the Labour Department and decisions of the Tribunal in the course of the year February, 1916, to February, 1917, illustrate the technical character of this last group of questions, and the comparative artificiality of the distinction.

"Men's Work."

Shell—all operations.

3" Stokes Shell—machine operations on body of shell.

Steel Billets—sawing cold and loading into Lorries.

Conduit Tubes—machining and packing.

Conduit fittings—machining (Midlands).

Turnbuckles—assembling.

Adapters (steel).

Shrapnel Shell—soldering inside over 4·5".

2" Trench Howitzer Bombs—Machine operations

Tabor Pneumatic Toll-over
Prigmore Hand-ramming
Tabor Jarring (power).

Moulding machines
Oxy-acetylene Welding.

Solid shop (for Admiralty)—machine operations

Armature Bars—forming out of strips exceeding 1/16 sq. in. in Section.

Armature winding—exceeding 10" diameter.

"Women's Work."

Fuses—all operations (except possibly those on automatics).

Hand Grenades—all operations.

Rifle Grenades—all operations.

3" Stokes shell—all operations on body of shell not on machines—all operations on cartridge containers.

No. 2 Gaine (British) all operations.

Primers—all operations (except possibly on automatics).

Adapters (brass)—all operations (except possibly on automatics).

Shrapnel shell—soldering inside up to and including 4·5"—filling.

3·7" Trench Howitzer bombs—all operations.

2" Trench Howitzer Bombs—all operations not on machines.

Aircraft—fabric and dope work.

Core making—small.

Solid shop—all operations not on machines.

Armature Bars—forming out of strips not exceeding 1/16 sq. in. in Section.

Armature winding—not exceeding 10" in diameter.

Requests for adjudication on this distinction between "men's" and "women's" work continued to be received in the later months of 1917. To some extent, however, the work of the Tribunal naturally changed in character. During 1916, when thirty-four awards were issued between its formation in March and the end of the year, the Tribunal was mainly concerned in arbitrating on difficult cases of firms employing women on "women's" work, either before the issue of

¹ See specimen awards at end of chapter; Rivet, Bolt & Nut Co., Dec., 1916, and Leyland Motors, June, 1917.
Order 447, or before its extended application. It was also occupied in
detailed consideration as to the formulation and the application of
this order for women’s work, and in discussions at prolonged conferences
with employers and trade unionists, as to payments to women employed
on woodwork or taking a skilled man’s work during a possible
probationary period. Only a few of its awards concerned wages for
“men’s” work. During 1917, when it made just under a hundred
awards, it was mainly occupied with questions about “men’s” work—
questions involving the assessment of special rates for intermediate
workers, and adjudication on very difficult claims that work done by a
woman was for purposes of the Orders the same as that done, possibly
under different conditions, by skilled men.

AWARDS IN DILUTION CASES.

Some of the most difficult problems connected with the payment of
“diluted” labour came before the Tribunal for decision, and its
awards with regard to the payment for “skilled” and “intermediate”
grades of work laid down valuable precedents for the administration
of the later wages Orders described in Chapter IV. Some illustrations
of this side of the Tribunal’s work are therefore given.


The Tribunal broke fresh ground when in February, 1917, it began,
in accordance with Orders 888 and 49, recently issued, to differentiate
between the grades of skill involved in “men’s work.” In two cases
then brought by the A.S.E. (against Messrs. Thwaites Bros., Bradford,
and Crossley Motors, Manchester), it ruled that work on turning motor
wheels and in the manufacture of hubs on a special form (“No. 9
Herbert”) of capstan lathe, “set up by fully skilled tradesmen and
tooled for repetition work,” claimed by the trade union to have been
skilled men’s work, entitled the women engaged on it to special rates
of pay as semi-skilled workers. These payments were not, however,
defined in the second case, and a long drawn-out argument between
the firm and its workers as to the degree of skill involved and
payment required\(^1\) led to another adjudication in August when the
second firm quoted was directed to pay 8½d. an hour (still the semi-
skilled rate) to the workers concerned. The case heard early in the
year, of the Society of Women Welders and the London Engineering
Employers’ Association, was the first when a definite rate was laid
down, starting at £1 a week or the minimum time rate for women on
men’s work and rising to 8d. an hour for semi-skilled workers.\(^2\) A few
days later (February 21st) an award between the Llanelly National
Shell Factory and the National Federation of Women Workers pre-
scribed a weekly rate of 26s. (6s. above the statutory minimum for a
48-hour week) for examiners and machine operators.

In the case of women employed on 4½ in. and 6 in. centre lathes
by the Caton Engineering Company, a rate of 8d. an hour was fixed

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\(^1\) C.E. 365/4B.  \(^2\) See Appendix IV.
(instead of the fully skilled rates claimed by the N.F.W.W.) and the same rate was awarded at this time for women "employed in connection with furnaces and on or in connection with the operations on power presses," in the forging shrapnel shop of Messrs. Dorman, Long & Co., Middlesbrough. In the following year, an award of 8d. an hour was given for women employed as navvies in the construction of steel works at Openshaw, and to women furnace workers at Sir W. Beardmore's, so that they received 3½s. a week plus war advances—a form of "laborious" work which clearly justified payments above the minimum of the Wages Orders.¹

The hourly rates fixed for "intermediate" work varied, at the end of 1917 and during the following year, between 6½d. and 8d. As has been explained, 7½d. was the rate normally prescribed for gaugers and examiners at the end of 1917 and in the following year, with the general war advances in addition.²

2. Skilled Work.

Awards for intermediate rates of pay were frequently given after hearing claims from trade organisations for fully skilled rates for their members. The Tribunal maintained the principle, often exceedingly difficult to apply to actual workshop practice, that the mere sub-division of processes did not per se remove an operation from the category of "skilled work," but that any accompanying simplification of the method of manufacture through a supply of fresh appliances ("jigs," etc.) might fairly be held to place such an operation in the grade of "semi-skilled" work. Two examples, unimportant in themselves, illustrate the type of problem thus considered, when such marginal cases came up for decision.

(i) Messrs. Rolls-Royce, Derby (represented by the Derby Engineering Employers' Federation), and the Amalgamated Society of Engineers and National Federation of Women Workers (October 12, 1917).

Here the Tribunal had to consider a claim for the skilled rates by women taking men's work. In one group of cases, jigs and appliances had been introduced to assist the operation, in another no such appliances had been introduced. In the second case, the Tribunal awarded the skilled rates under Section 1b (iii) to (viii) of Order 489 (a successor to Order 49), but refused the claim where special devices had been introduced to facilitate production.

(ii) Another typical dilution case was that of a Scotch firm, Messrs. Keith & Blackman, of Arbroath.³ In June, the secretary of the Associated Iron moulders of Scotland claimed payment for women on a dozen moulding machines in this firm's iron foundry, as for work done by skilled men prior to the war. "Moulders" wrote the firm,

² Cf. North Eastern Railway Co. and N.F.W.W.
³ C.E. 1319/4B.
"are not actually claiming that the work done on the machines is skilled, but that it was performed by skilled men prior to the war, but the fact that this was done was due entirely to the scarcity of apprentices and suitable unskilled labourers prior to the war." Other firms more fortunate in finding boy labour before the war, now, it was explained, used unskilled men and girls on such work. Why should one firm pay more for its work during the war owing to an accident of organisation in time of peace? The Department's enquiries confirmed the statement that the work was only incidentally done by skilled men, and when the case came up for arbitration in August, the Tribunal refused to award the fully skilled rates of pay.

In the course of the year 1917, the Tribunal adjudicated in some fifty such cases. Some of these were simple and quickly disposed of, and others involved highly technical questions, requiring detailed knowledge of parallel trade customs, and often requiring inspection of the actual process by members of the Tribunal, or by the Department's Investigation Officers, in addition to a hearing of representatives of the employers and workers at the Tribunal's office.

General Aspects of the Tribunal's Work.

Apart from these technical questions, the Tribunal had focussed before it the essentially "human" background to the economic processes of dilution and wage regulation. The personal aspect, apparent in almost all industrial arbitration, was particularly prominent in many of the cases with which the Tribunal dealt—cases of the application of general principles to the wholly ungeneralised position of women in industry. Thus, it heard in the course of the very frank discussions held before it, the admission of representatives of the A.S.E., conscious of their craft and prolonged training, that despite their insistence on "fully skilled" rates for substitutes, it was impossible for complete substitution for the skilled worker to be achieved in engineering. Employers, such as the head of a Scotch firm who had employed a hundred women for four or five months in his machine tool works, "and none of them deserved more than £1 a week," agreed forcibly with the Trade Unionists that women would never as a rule do skilled men's work in their trade. It was only in the application of this opinion that employers and Trade Unionists differed, the men remaining obdurate that the woman substitute, even if, as was probable, only a partial substitute, must have the fully skilled rates of pay in justice to the skilled man if not to herself, the employers urging the absurdity of expecting them to pay a woman "who had never done any work but washing dishes in her life," the wages of a skilled artisan.\[1\] The decision of the Ministry on the controversy has been already recorded.

Other personal aspects of industrial problems came before the Tribunal, not only in the more formal hearings of employers and workers organisations, but in the normal routine of arbitration. It saw the cross-currents of opinion between the skilled and the unskilled unions with regard to the definition of skilled work, and the reluctance of

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such workers as slotters and drillers, to accept the designation of “semi-skilled,” and it heard the recrimination of three overlapping unions engaged at cross purposes in securing agreements for women’s wages.\textsuperscript{1} It had to deal with the unwillingness of the woman worker to take reasonable care of her own strength, as in a case when the Right Hon. John Hodge attended as a witness, and stated, with much emphasis, that the sawing of cold steel into billets of 21, 43, and 56 pounds and loading them into lorries was not, and never had been, in his 45 years’ experience, the work of either boys or women, despite the fact that women were then engaged on the work, in a controlled establishment, and were said to be volunteering to lift even heavier weights.\textsuperscript{2} Or in a Lancashire case, when girls and women were said to be cutting up brass bars weighing 40 to 50 pounds and forging them into parts for fuses (at 16s. by day, 20s. by night, when on time work), and constantly, despite the management’s advice, refusing to make these weights more manageable by asking for help in lifting them.\textsuperscript{3} It had equally to consider the extent to which wages in a large explosives factory should be affected by the fact that the women, in this case admittedly of a poor physical type and unused to factory work, were suffering from their heavy and sometimes unwholesome employment, and to consider the probable financial results of shortening their hours of work and making better provision for their welfare.\textsuperscript{4} It laid down in its early awards, the principle that no girls under eighteen should be employed on “dope” work, and that wages higher than the standard should be paid to women so employed. It was called upon to consider the precise cost of board and lodging for the woman worker at varying times and places, and the amount that munition girls of different ages should or would pay for this purpose to (a) their landlady, or (b) their parents, in relation to demands for advances of wages in a firm or district.\textsuperscript{5} It heard, more than once, complaints by employers as to the paradoxical effect of increased wages on efficiency and output, so that, for example, in one very large firm the avoidable loss of time among pieceworkers was 4\frac{3}{4} hours per week, as compared with 2\frac{3}{4} among the less wealthy time workers, and it was urged that an increase above the weekly average of £1 10s. 8d. earned by pieceworkers in a particular group of large firms would only lead to increased irregularity and loss of time.\textsuperscript{6}

Again, it heard the protests of employers over the application of the Wages Orders in marginal cases. Thus, in a rubber works, where the respective operations of making ground-sheets and hospital sheets or petrol tubing and garden hose, were identical, the extension of the

\textsuperscript{1} Cf. British Westinghouse case, October 23rd, 1916.

\textsuperscript{2} Beardmore, Moss End Steel Works and N.F.W.W., April 19th, 1916.

\textsuperscript{3} Sutcliffe & Speakman, Leigh, August 2nd, 1916.


\textsuperscript{5} Cf. Armstrong, Whitworth & N.F.W.W., November 27th, 1916.

\textsuperscript{6} Workers’ Union v. Thirteen Coventry firms, May 22nd, 1916. The award in this case was celebrated by a concert and dance in the Trade Union’s local quarters: \textit{Worker’s Union-Record}, August, 1916.
Wages Orders to the makers of ground sheets or petrol tubing (which might be held to be "munitions" work) must inevitably raise the wages of the other workers equally by 10s. to 18s. a week, so that under competition the firm would be "ruled out of garden hose and hospital sheeting,"\(^1\) It dealt with as much consideration as was possible in an era of collective bargaining for outstanding peculiarities in the relations of a firm to its employees; such as a custom of raising wages by individual merit rather than by groups of workers,\(^2\) or supplementing a fluctuating war bonus and low standing wages by the provision of hot dinners in winter, and holidays in summer at the firm's expense.\(^3\)

Its awards in some 320 cases (to November, 1918), if fairly uniform in character were singularly varied in scope, ranging from decisions covering the whole of the women employees of Messrs. Vickers, at Barrow, or Messrs. Armstrong, at Newcastle, to provision for a case involving only two girls and one woman in a large Sheffield Works.

After the suspension of hostilities, the Tribunal ceased to operate as a Court of Arbitration under the Acts of 1915 and 1916, and was merged in the Interim Court of Arbitration set up under the Wages (Temporary Regulation) Act of 1918.

**Results.**

The effects of sympathetic and impartial hearing of points such as these spread beyond the limited sphere indicated by the number of the Tribunal's "hearings" and the friendly attitude of employers and employed before the Tribunal as its methods were understood are a further illustration of the advantages of the conference method of settling industrial disputes.

**General Movements in Wages.**

1. *Advances owing to Cost of Living.*

In addition to the very varied questions involved in its duties as a court of arbitration, the Special Tribunal had also to consider, in the course of the year 1917, applications for a general advance of women munition workers' wages, on the same lines as the similar applications made to the Committee on Production by men munition workers.

It has been recorded how the general advance of 5s. in April, 1917, to men in the engineering trade—given by the Committee on Production under a National Agreement between the Engineering Employers’ Federation and some 40 skilled and unskilled men's unions—gave rise to a claim from "skilled" women workers for the same war advances as men. The claim was ultimately refused by the Department, though sanctioned in certain individual cases, partly on the ground that it was impossible to regulate wages by Statutory Order if they were

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\(^1\) Conference, July 12th, 1917.


\(^3\) Nobel's, Linlithgow.
also liable to the influence of awards by another authority. Apart, however, from any such claim on the basis of "equal pay for equal work," women began at this time to claim a general increase of wages on the score of increased cost of living.\footnote{See pp. 49-52, Chapter IV.}

In April, 1917, new Statutory Orders were issued advancing the wages of women time workers by about 4s. a week\footnote{L.R. 142/5 and L.R. 142/100.} and the question of the need for a further increase owing to the cost of living was referred to the Special Arbitration Tribunal. A prolonged conference, typical of several held later on the same subject, took place on July 12th, 1917, between the members of the Tribunal, representatives of the National Employers' Federation, and of associations of India Rubber and Chemical manufacturers, cable makers and ironfounders (trades specially affected by the women's wages orders), and officials of a number of trade unions. The spokesman of the National Employers' Federation submitted the statement of wage increases given on page 105 and urged that women's wages had risen during the war in greater proportion than the cost of living, while employers profits were heavily and increasingly taxed. Quoting from a recent speech of Lord Leverhulme, to the effect that during the war "workers, most of them, have for the first time tasted and enjoyed the sweets of life... and grown accustomed to a higher plane, its pleasures and advantages; they will strive to remain on that level and if possible, rise above it," he commented—that borrowing a phrase perpetually used by workmen in arbitration cases—"if that is not profiteering (on the part of the workers) I do not know what is." On the other hand, the representative of the joint committee of unions dealing with women's labour maintained that on principle, if a woman was to receive the same rate as the man whose work she took, she must have all the war bonuses which he would have got had he remained in his employment, and that organised labour viewed with apprehension the growing "economic difference" between the wages of men and women workers in similar employments. He urged that the women on piece work, and, in some cases, those on time work, had received no real advantage from the special advance granted in the previous spring; and that both on grounds of equality and of the rising cost of living—which, he urged, clearly affected women as much as men—a full ten shillings advance in weekly wages was urgently required. According to the official index numbers of the Ministry of Labour, prices had risen 71\%, and no less advance of time wages than ten shillings would fairly represent the increase.

The Tribunal, however, was not convinced by the trade union arguments, and in accordance with its advice, a new statutory order

\footnote{The special Arbitration Tribunal refused such claims on January 8th, 1918, when it ruled in the case of the A.S.E. and Willans & Robinson, Rugby, that "it was advised" that women on skilled men's work should receive the women's advances, and not those awarded to men by the Committee on Production, and, it maintained this principle in awards made on February 19th in the cases of the Power Co. and the Coventry Ordnance Co.}
was issued at the end of July, raising the wages of women and girls, both on time and piece work, on men’s and on women’s work by 2s. 6d. and 1s. 3d. a week from August 15th, 1917, when a second general advance—this time of 3s.—awarded by the Committee on Production to men in the engineering trades had been for a fortnight due. A further advance was claimed by organised women workers during the autumn in accordance with the fresh advance of 5s. awarded to men in November under the new system of a four-monthly revision of rates of engineering wages, and a general increase of 3s. 6d. and 1s. 9d. a week from the middle of December, 1917, was enforced by a Statutory Order sent to employers of women munition workers.¹ No fresh general advance in women’s wages was enforced until the first pay day in September, 1918, when women munition workers, who had claimed 10s. at a hearing of the Tribunal in August, received a general advance of 5s.

2. “Generalisation of Awards.”

Proposals for the extension of the scope of the Tribunal’s decisions appeared in 1917.

Hitherto the arbitration awards of the Tribunal had dealt only with individual firms or with small groups of firms, and other firms were often ignorant of the hearing of such awards in their own case until some vigilant Trade Union official drew their attention. The generalisation of isolated awards and agreements made for special sections of a trade was, however, the characteristic form of control of men’s wages in that year, and powers had been given to the Department under the Munitions of War (Amendment) Act of August, 1917, to make awards or agreements affecting employers of the majority of persons employed in a particular trade or branch of a trade, binding on all or any other employers so engaged. This provision primarily affected men, since only one award against a federation of employers had at that date been secured by women workers.²

To a certain extent, it is true, the extension of awards had already been possible for women owing to the constitution of the Special Arbitration Tribunal, and Orders 447 and 618 had been virtually repetitions of awards previously made by the Tribunal. But by the summer of 1917, when general principles for the settlement of women’s

¹ The recruitment of women members by several of the unskilled or semi-skilled men’s unions brought about a growing tendency to include women with men in advances claimed on the score of increased cost of living. Thus at a hearing of the Committee on Production in October, 1917, when the National Federation of General Workers claimed from the recently formed Wages Committee of Chemical Manufacturers a general advance of 1s. 6d. per day or per shift for their members, a definite application was made by the labourers’ unions concerned for an equal advance for women in the trade, whether on “men’s” or on “women’s” work. A much discussed award of the Coal Controller in the previous month had given an advance of 1s. 6d. a day to all adult workers.

² In the application of the National Union of General Workers, the Workers’ Union and the National Federation of Women Workers against the National Employers’ Federation for the extension of Order 492 to the Bolt and Nut Trade in the Black Country (August 9th, 1917).
wages had been established, the possibility of further extending awards
of the Tribunal, and at the same time of providing for the needs of
special trades within the scope of "munitions," came under consider-
ation. It was discussed at length in two deputations to the Ministry
on June 1 and 14, by the National Union of General Workers, the
National Amalgamated Union of Labour and the National Federation
of Women Workers. The representatives of these Trade Unions urged
that some sort of machinery should be set up, to which they could
go regularly with their complaints representing the whole of the women
workers engaged, e.g., in the filling factories, and put their case for a
general advance. The Special Tribunal, it was admitted, allowing
for the difficulties and limitations with which it was surrounded, "had
done as well as any reasonable person could have expected from a
Tribunal." But still, it could only give individual awards, and for
general advances other than on grounds of cost of living an appeal by
an organised deputation was necessary. The result, said the represen-
tative of the National Federation of Women Workers, "is, we have
taken particular firms and by awards which have been given, they
are paying really very much more than other firms. We say these
other firms ought to be brought up to that standard." There should
be some central body to which women could appeal, which would stop
women's strikes; perhaps, as an experiment, a standing joint committee
of engineering employers and employed might be formed for this purpose
on the analogy of the Trade Boards. Here, again, as in the first stages
of the control of wages, the lack of organisation or the irregular distri-
bution of Trade Unionism among women—75% of the munition workers
in one area, and none at all in some other districts—stood in the way of
adopting any scheme for women workers on quite the same lines that
might be laid down for men. Such settlement of disputes and wage
questions within the industries concerned, might possibly, it was
suggested, be attained by "local conferences of the trades, both of
employers and employed, district by district, and a central conference
comprised of the principal representatives of local conferences, the
latter to agree maximum and minimum rates for various grades of
work, which might then be fixed by the Tribunal by order." This
was again proposed in the following year, but action was delayed owing
to the old difficulty of distinguishing between munitions and non-
munitions work.

There was a special reason for some more simple system of extending
the operation of the Tribunal's awards, and of the statutory wages
Orders. The Fair Wages clause could not be interpreted to enforce the
extension of awards of the Tribunal or of the statutory orders to firms
to which they had not definitely been applied, since such awards and
orders applied only to specified munitions works under the limitation
of the leaving certificate regulations, until this qualification was
removed by the Act of August, 1917. If it were desired to ensure
the payment of wages according to statutory order by firms to which
these orders had not been specifically applied, then it was urged, a
clause should be inserted in the contracts of such firms, binding them,

1 L.R. 142/4. 2 L.R. 3684. L.R. 173,874.
to pay wages at the rates prescribed by the Orders. Such a clause was actually inserted in the contracts of uncontrolled firms making ammunition boxes, in the autumn of 1917.¹

To some extent the difficulty was met by the powers given to the Department by the Amendment Act of 1917, of making wages Orders for female workers "employed on or in connection with munition work of all classes." This did not, however, remove the employers’ objection that uniform orders were being applied to munition workers in many different industries, regardless of the latter’s special traditions and requirements.² This difficulty had been apparent from the first stages of wage regulation, but there was, as has been said, at that period no opportunity, and perhaps little necessity, for treating women munition workers’ wages, industry by industry.

PROPOSALS FOR CONSOLIDATION OF THE WAGES ORDERS.

Both employers and workers had by the middle of 1917 criticised the complexity of the wages orders, and a promise was given that they should if possible be consolidated and simplified. This process was delayed by the changes in the composition of the Tribunal during the autumn; but in the middle of November, the reorganised Tribunal was duly requested to advise whether any, and if so what, directions should be given by the Minister consolidating and amending the existing orders relating to the wages of women and girls employed on munitions work, and to what trades, out of some fifty in an appended list, such consolidated directions, or the existing orders, should apply.

"The ideal," it was stated, "would be that all the trades affected should devise their own orders and leave it to the Department to administer in recalcitrant cases. But I think the functions of the Ministry of Munitions, the limitation of its powers to munition work, and the unorganised condition of women workers, render this ideal impossible for the Ministry to achieve and that a compromise as suggested would be best." That is, the issue of "one consolidated order applicable to as many trades as possible, and sufficiently flexible to permit of adjustments to meet the particular needs of particular trades."³

The Consolidated Order, issued after much discussion, on May, 1918, has been described under the different classes of work to which it applied. It was drawn up on the lines indicated in the preceding

¹ In November, 1917, on the application of the National Federation of Women Workers, the National Union of General Workers, the Municipal and Gas Workers’ Union, and the Workers’ Union, the Women’s “Work” Order (492) with the Order for the 2s. 6d. and 1s. 3d. advance of the previous August, was made binding for all women and girls employed by the National Employers’ Federation on munition work, other than “men’s work.” This was a further advance on the experiment recorded on p. 191, of issuing awards with general application.

² The same difficulty reappeared in the application of the 12½% bonus to men munition workers in the autumn of 1917. Outstanding problems as to its application were settled by departmental conferences with separate trades.

³ July, 1917. L.R. 142/16.
paragraph—probably the only form possible at the time. The desire both of employers and workers for collective treatment of their wage problems, and for the differentiation of these problems according to trade, is of interest in view of the official suggestions made during 1918 for the post-war settlement of women’s wages (i.e., by Wages Boards).

**Dual Functions.**

The double position of the Tribunal as a judicial and an advisory body had advantages and disadvantages. On the one hand the close contact into which it was brought in arbitration cases with the needs of employers and workers under special conditions, industrial or local, probably led to elasticity in the framing and application of the Statutory Orders. Thus in the case of a Cable Works with branches in rural or suburban districts in Lancashire and Cheshire, worked by “typical village people” according to the Dilution Officer’s report, special rates, beginning at 1½d. and 2d. an hour were laid down for beginners of 13 and 14, so as not to disturb too much the standard of living of the country girl. At a Linlithgow works, where 200 women and girls were employed on the manufacture of safety fuses at from 11s. 6d. to 17s. a week (including bonus) for grown-up workers, low rates in accordance, in some measure, with the local standard were again sanctioned. In the case of Siemens Bros., Woolwich, a flat rate was awarded for night and day work, in accordance with custom in cable works. These exceptions were stereotyped in the Statutory Regulations, subsequently issued with elastic provisions for overtime payments and for a lower scale of wages in certain areas.

On the other hand the Tribunal’s advisory functions sometimes complicated its judicial work and led to delay. Thus in the autumn of 1916, certain cases brought by the National Federation of Women Workers against firms engaged in electrical engineering, in the manufacture of nuts and bolts, etc., were held up for several months, because the Tribunal was at the time considering the application of Order 447 to all controlled establishment in these trades. Delays such as these were almost inevitable, though they were much criticised at the time by those concerned.

As a whole, the peculiar constitution of the Tribunal, with its dual functions, was fully justified by the consistency thus secured to its awards and the weight acquired by its recommendations as a result of its members’ arbitration experience. The effectiveness of its work is a testimony to the value of a standing court of arbitration for dealing with groups of cognate cases.
Examples of the Special Arbitration Tribunal's Awards.

NATIONAL FEDERATION OF WOMEN WORKERS AND
THE RIVET, NUT & BOLT CO., GATESHEAD.

The Tribunal awards and orders that the following shall be the rates of wages to be paid by Messrs. The Rivet, Bolt and Nut Company, Limited, to the female workers employed in the establishments of the firm at Gateshead on munitions work of a class which prior to the war was not recognised as men's work.

1. The rates for workers customarily on time shall be as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Women of 18 years and over</th>
<th>Girls under 18</th>
<th>Girls 16</th>
<th>Girls 15</th>
<th>Girls under 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>4½d. per hour</td>
<td>4d. per hour</td>
<td>3½d.</td>
<td>3d.</td>
<td>2½d.</td>
</tr>
</tbody>
</table>

2. The time rates for piece workers and premium bonus workers shall be as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Women of 18 years and over</th>
<th>Girls under 18</th>
<th>Girls 16</th>
<th>Girls 15</th>
<th>Girls under 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>4d. per hour</td>
<td>3½d. per hour</td>
<td>3d.</td>
<td>2½d.</td>
<td>2d.</td>
</tr>
</tbody>
</table>

3. Women and girls may be rated at ½d. per hour less than their appropriate rate as prescribed by paragraphs 1 or 2 of the award for probationary periods not exceeding:

- In the case of women of 18 years and over: 1 month.
- In the case of girls under 18: 2 months.
- In the case of girls under 16 years: 3 months.

Such probationary periods shall be reckoned from the date when women and girls are first employed, and no woman or girl shall be called upon to serve more than one probationary period.

4. Any war bonuses already granted shall be deemed to be merged in the rates prescribed by this Award.

5. The appropriate time rate prescribed by this Award shall, in the case of any woman or girl on piece work, be guaranteed irrespective of her piece work earnings. Debit balances shall not be carried forward from one week to another.

6. On premium bonus systems every women's and girl's appropriate time rate as prescribed by this Award shall in all cases be paid.

7. Additional payments in respect of overtime, night shift, Sunday or holiday work, shall be made in accordance with the custom of the establishment for the class of women or girls concerned, or in
cases where no such custom exists then at the rates and on the conditions prevailing in similar establishments or trades in the district, or in default thereof then at such rates and on such conditions as the Tribunal may, on the application of either party, direct.

8. Except in cases where they are sent home, women and girls on piece work or premium bonus systems shall, between jobs, be booked on to and paid at their respective time rates as prescribed by paragraph 2, of this Award, and women and girls who are prevented from working owing to breakdown, air raid, or other cause beyond their control, shall be paid for the time so lost at the rate of three-fourths of their respective time rates as prescribed by this Award. This provision, however, shall not apply in cases where machines are stopped in the usual course of operations for setting-up, replacement or grinding of tools, or similar reasons.

9. Piece work price and premium bonus basis times shall be such as to enable a woman or girl of ordinary ability to earn at least 33\% over her time rate as prescribed by this Award.

10. The above rates and conditions shall be recognised as war rates and conditions, and as due and depending on the exceptional circumstances resulting from the present war.

11. The foregoing rates shall not operate to prejudice the position of any person who has better terms and conditions, nor prevent the recognition of special ability or responsibility.

12. This Award shall come into operation as from the commencement of the first full day next after the date of this Award.

13. If any difficulty arises as to the meaning of this Award, or as to the carrying into effect of the principles thereof, or as to the application of those principles to any cases covered by the Award but not specifically provided for therein, this Tribunal will decide it. Any application for a decision under this paragraph shall be addressed to the Secretary to the Tribunal, 6, Whitehall Gardens, London, S.W.

Dated the 12th December, 1916.
THE SPECIAL ARBITRATION TRIBUNAL

LEYLAND MOTORS (1914) LTD.

AND

EMPLOYEES OF THE FIRM AT LEYLAND AND CHORLEY.

The Tribunal finds and awards that women of 18 years of age and over employed on the undermentioned operations, in the establishment of Messrs. Leyland Motors (1914), Ltd., at Leyland and Chorley, shall be paid as follows:—

LEYLAND.

Motor Cylinder Grinding Machines .... Under paragraph 1 (a) (ii.) (c) of Statutory Rules and Orders (1917) No. 489.
Cam Grinding Machines .... .... Under paragraph 1 (b) (ii.) to (viii.) of Statutory Rules and Orders (1917) No. 489.
Norton Grinders .... .... .... Ditto
Bevel Gear Cutters (Smith & Coventry Machines) .... .... .... Under paragraph 1 (a) (ii.) (c) of Statutory Rules and Orders (1917) No. 489.
Stocking out Bevel Gear Wheels .... .... Ditto
Broaching Machines .... .... Ditto
Milling Machines .... .... Ditto

CHORLEY.

Plain Grinders .... .... .... Under paragraph 1 (a) (ii.) (c) of Statutory Rules and Orders (1917) No. 439.
Butler Shaping Machines .... .... Ditto
Universal Milling .... .... .... Under paragraph 1 (b) (ii.) to (viii.) of Statutory Rules and Orders (1917) No. 489.
Briggs Milling Machines .... .... .... Under paragraph 1 (a) (ii.) (c) of Statutory Rules and Orders (1917) No. 489.

Pratt & Witney Vertical Shaper .... .... Ditto
Potter & Johnson Automatics boring and facing exhaust flanges .... .... Ditto
Churchill Grinder .... .... .... Ditto
Centre lathe facing flange wheel caps for road wheels .... .... Ditto
Oliver Turret Lathe. Boring and facing engine support cones .... .... Ditto
Potter & Johnson Automatics. Turning pistons for engines .... .... Ditto
Fly cutters Milling Engine bearings .... .... Ditto

2. The Tribunal finds that the claim of the employees that women shall not grind or change tools on capstan lathes in the establishment of the firm at Leyland, is not justified in the light of the practice in this matter now prevailing in the trade.
3. The Tribunal finds that the claim made by the employees that girls under 18 shall not be employed in the Inspection Department of the firm at Leyland is not justified, but that in fixing rates for girls so employed, consideration should be given to the last portion of paragraph 9 of Statutory Rules and Orders (1917), No. 490.

4. Where this award prescribed that the rates of wages of women shall be determined under paragraph 1 (a) (ii) (c) of Statutory Rules and Orders (1917), No. 489, such rates shall be based on those prevailing for men employed on work of the same class less deductions on account of additional cost incurred by extra setting-up, or skilled supervision, due to the employment of women in place of men, regard also being given to the number of machines operated by the men and women respectively.

5. Nothing in this award shall prejudice or affect the right of the parties to have the nature of any departure from the conditions prevailing before the establishment became controlled recorded and dealt with under paragraph 6 of Schedule 2 of the Munitions of War Act, 1915.

6. Systems of payment by results should now be introduced in the establishments of the firm at Leyland and Chorley, based on the appropriate provisions of Statutory Rules and Orders (1917), No. 489.

7. If any dispute arises as to the meaning of this award, or as to the carrying into effect of the principles thereof, or as to the application of those principles to any cases covered by the award, but not specifically provided for therein, this Tribunal will decide it. Any application for a decision under this paragraph shall be addressed to the Secretary to the Tribunal, 158, Palace Chambers, 9, Bridge Street, Westminster, London, S.W.

Dated 7 June, 1917.
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VOLUME V

WAGES AND WELFARE

PART III

WELFARE: THE CONTROL OF WORKING CONDITIONS

1920.
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WAGES AND WELFARE

PART III

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THE ESTABLISHMENT OF A WELFARE POLICY.

I. Introductory.

(a) The Implications of "Welfare."

The paramount need for the supply of munitions led, under the Munitions of War Acts, to the system of State regulation of labour, recorded elsewhere, in regard to wages, industrial disputes, trade union rules, the movements of workers from factory to factory, and the enforcement of workshop discipline by means of specially established courts. These restrictions were destined primarily to secure stability of labour and unbroken output. But in addition to this, the Ministry of Munitions developed a widespread system of intervention into conditions of labour in the interests primarily of efficiency. State control of working conditions and of the workers' surroundings was already at the outbreak of war firmly established on the basis of the Factory Acts of the past century, the Public Health and Housing Acts and a mass of recent social legislation, while the initiative of employers and of organised labour had to a greater or less extent filled in the gaps in the compulsory system. But the needs of war production made it impossible to adhere wholly even to the national minimum of working conditions thus partially secured, and yet showed how imperative it was to maintain or raise this minimum. The measures taken by the Ministry of Munitions aimed at increasing the well-being, and, therewith, the efficiency, of labour under abnormal conditions. They were also a recognition (as was the regulation of women's wages) of the duties of a Public Department to those whose labour it employed or controlled on an unprecedented scale.

The Department had the advantage of a working programme for almost all the points with which it thus dealt, in the reports of the Health of Munition Workers Committee, an expert body appointed by the Minister of Munitions with the concurrence of the Home Secretary, in September, 1915, to advise on questions concerning "industrial fatigue, hours of labour, and other matters affecting the personal health and physical efficiency" of the munition worker. This committee represented the concentrated experience of the Home Office, of employers and labour, and of medical experts, and supplied a

---

1 See Vol. I., Part IV.; Vol. IV.; Vol. V., Parts I. and II., etc.
2 The composition of the Committee was as follows: Sir George Newman, M.D. (Chairman); Sir Thomas Barlow, Bart., K.C.V.O., F.R.S.; G. Bellhouse, Factory Department, Home Office; Prof. A. E. Boycott, M.D., F.R.S.; J. R. Clynes, M.P.; E. L. Collis, M.B., Factory Department, Home Office; W. M. Fletcher, M.D., F.R.S., Secretary of the Medical Research Committee; Leonard E. Hill, M.B., F.R.S.; Samuel Osborn, J.P., Sheffield; Miss R. E. Squire, Factory Department, Home Office; Mrs. H. J. Tennant; E. H. Pelham (Secretary).
scientific background, with much practical detail, for the greater part of the Department’s work, both in administration and in propaganda, described hereafter.

If the Department was unable to follow up completely such a programme, this was to a great extent due to the difficulties of supply. Those who were responsible for output at high pressure, at first, at least, hesitated to adopt innovations in factory management or restrictions on working hours which might even temporarily retard output or add to the amount of apparently unproductive labour or equipment for which payment must be made; while shortage of materials and of building labour and transport put great difficulties in the way of the erection of fresh "welfare" accommodation or housing.

With these two groups of considerations in the balance—on the one side the recommendations of its own expert committee, on the other, the needs and the severe practical limitations of supply—the Department developed by logical stages a "welfare" policy for munition workers. This policy consisted in practical and detailed provision for the health and well-being of very large numbers of workers, and was quite remote from the implications of patronage which attached itself in the minds of certain critics to the original meaning of the word welfare. The standards of comfort and of management at which the Department aimed were, indeed, in great part, by no means new, but represented the pre-war practice of a number of good employers. But the standardisation of such practice was of great importance, both for the sake of the employers and workers immediately concerned and of the assertion of principle involved.

(b) The Relation of the Different Branches of Welfare.

The production of munitions occupied ultimately at least 700,000 women and girls and 250,000 boys. Some of these were engaged in the same occupations that they had followed or would naturally have followed in time of peace, but the great majority were working or living under abnormal conditions within or without the factory. To provide for their comfort, efficiency and health, up to a higher level than that required in normal times by the Factory Acts, a special Welfare Section of the Ministry was built up, which (a) developed a policy, or in part, as has been said, gave effect to that of the Health of Munition Workers Committee; (b) gave examples of carrying out this policy in the national factories and endeavoured to extend it among the "controlled" munitions firms, by moral suasion and by the supply of special facilities and information; (c) organised or co-ordinated the care of munition workers outside the factory, by securing for them means of recreation, reasonably comfortable lodgings and travelling facilities, and provision, when this seemed necessary, for the care of their infants and older children.1

This work, with which the term "welfare" was primarily connected, was not originally destined for men munition workers,

1 Chapters II and III.
who were often working under conditions of even greater stress, but
whose trade union organisation gave them, in theory, the power to care
for their own working conditions, and who had on this account been
exempt from the greater part of the restrictions placed on the labour
of "protected persons" in the previous seventy years. The measures
taken for the benefit of women and young persons, however, like the
legal restrictions on their hours of work during the nineteenth century,
reacted on the working conditions of men,¹ and were in the second
half of the war beginning in a number of cases to work in with the
industrial self-government movement fostered by the Whitley report
of 1917.

The special medical work undertaken by the Welfare Section—
work covering a large, and to a great extent a new, field of industrial
hygiene—is described briefly in Chapter IV.

The attempt to balance the needs of output and the necessary
relaxations of the Factory Acts with the results of scientific investiga-
tions of industrial fatigue,² was the work of an inter-departmental
committee which dealt, in conjunction with the Home Office and the
supply departments of the Ministry of Munitions and the Admiralty,
with munition workers' hours of labour. This committee was inevitably
concerned with diminishing overtime or minimising its ill-effects, so far
as possible, rather than with the maintenance of physiological standards
of hours of work during the stress of war. Its efforts, however, and
the records of overtime and Sunday work performed, have a special
retrospective interest, in the light of the reaction at the Armistice
and the movement for the legal enforcement of a shorter working day.
They have a further interest and importance in their connection with
the problems of wage regulation during the war.

From the attempt to secure moderate hours of labour, in order
that output should be maintained, there was an obvious transition to
inquiries into the time-keeping of munition workers and to a system of
attempts to improve this. In its dealings with loss of time in munition
works, the Department was brought into contact with problems of
works discipline and with the possibility of co-operation with labour
in its maintenance; and was also led to consider the effect of health
on regularity of work.³

The great migration of labour, fostered by the Department,
brought, or threatened to bring, over-crowding, with ill-health and
obvious loss of efficiency. To prevent this, and to make it possible
to carry on the supply of munitions at all in certain areas, the Depart-
ment undertook a series of housing schemes, built hostels, and helped
to secure lodgings and to administer an Act passed in 1917 for the
compulsory billeting of munition workers.⁴ Further, it became

¹ Thus the Welfare Orders issued by the Home Office in 1917 and subsequently
made no distinction in the age or sex of the persons for whose benefit they were
intended. (See p. 17.)
² Chapters V and VI.
³ Chapter VII.
⁴ See Vol. V, Part V, Chap. III.
responsible, to an extent wholly new to a Government Department, for the social life and well-being of the entire population of workers in certain industrial centres.\(^1\)

The connection of the different portions of the Department's policy for thus dealing with munition workers' industrial efficiency is obvious, although they were never administered from one section of the Department, and only in the last year's work from the Labour Regulation Department as a whole.

In thus dealing with munition workers, the Ministry of Munitions was inevitably brought into contact with many Departments and organisations already concerned with social and industrial welfare. In the promotion of the health and comfort of the workers, and in endeavouring to restrict their hours of work, it was approaching the sphere of the Home Office, which indeed alone exercised compulsory powers in this direction. In housing schemes it dealt with the Local Government Board, and in the provision of canteens with the Central (Liquor) Control Board; the provision of crèches was arranged with the Board of Education. It came into touch with local authorities in connection with recreation schemes, the provision of housing, lodgings, and day-nurseries; and with voluntary organisations (but not, to any considerable extent, with those of the working-classes), through all the varied forms of care for munition workers outside the factories. In pressing measures for welfare and housing, the Ministry of Munitions had the advantage of being the Department which controlled or ordered the supplies towards the production of which all these measures were ultimately directed; and it had special opportunities for negotiating the financial concessions which met a great, if not the greater, part of the cost of the new extra-legal standard of industrial welfare which it advocated.

II. Welfare Organisation by the Ministry—First Stages.\(^2\)

(a) Formation of the Welfare Section.

The Welfare Section of the Ministry was created by Mr. Lloyd George at the end of December, 1915, and Mr. B. S. Rowntree, who had had much experience of welfare organisation in the works of his firm at York, was appointed as its Director. Work in munition factories was being carried on frequently under great stress and under quite abnormal conditions, largely because works which had been equipped for other purposes were being reorganised and re-equipped to enable them to make munitions. Women were being introduced under the Ministry's policy of dilution into engineering works originally constructed with the idea that men only would be employed, and staffed only by men. New factories were rapidly springing up, and so great was the demand for munitions that workers were often busy and manufacture was begun in one part of a factory before it was completed,

\(^1\) See Chapter VIII, and Vol. V, Part V.

\(^2\) A considerable portion of this section is based on a memorandum by Mr. B. S. Rowntree, filed in Hist. Rec./H/346/1.
and before accommodation such as canteens, cloakrooms, etc., had been built or proper arrangements made for the transit of the workers. The employment of women in the engineering shops inevitably brought problems as to the best use of their labour—an unknown type to many managers, who were inclined either to allow the newly imported women to relapse into bad order and discipline, or to permit inexperienced and enthusiastic workers to overstrain themselves by too heavy work or over-long hours. Thus a grave danger arose that the tremendous demand for an increased output of munitions which was brought to bear on the supply departments, and on the managers of factories—a pressing demand which inevitably gave prominence to questions of output rather than of control of labour—might react disastrously upon the workers, and so defeat its aims.

The Health of Munition Workers Committee, in a memorandum issued in January, 1916, urged the need for attention to this side of the problem of production.

"If the present long hours, the lack of helpful and sympathetic oversight, the inability to obtain good wholesome food, and the great difficulties of travelling are allowed to continue, it will be impracticable to secure or maintain for an extended period the high maximum output of which women are undoubtedly capable."

In their report on Welfare Supervision, issued just previously, the Committee represented the need for increased care, if possible by means of "resident superintendents," for the well-being of workers—primarily, but not only, women and girl workers—in munition factories.

The labour employed in national factories and controlled establishments in October, 1916, was approximately as follows:—

<table>
<thead>
<tr>
<th>Men</th>
<th>Boys</th>
<th>Women</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,253,000</td>
<td>205,000</td>
<td>340,000</td>
<td>69,000</td>
</tr>
</tbody>
</table>

Already, at the beginning of the year, the numbers were growing rapidly towards this level, and it was clear that the Department must become responsible for labour on a colossal scale. A few weeks after the establishment of the Welfare Section the Minister of Munitions formally expressed his desire that the conditions under which women worked in national factories should be as good as possible, and that for disciplinary purposes they should as a rule be under the control of women rather than men. Beyond this, however, no definite directions were at the outset given to the new section, which was left to develop in a widening and necessarily indeterminate field.

(b) Powers of the Ministry.

Under section 6 of the Munitions of War (Amendment) Act of January, 1916, a section already discussed in detail in the history of Women’s Wages, the Minister had power to give directions as to the

---

1 Cf. Special Arbitration Tribunal Reports, Vol. V, Part II.
2 Memorandum No. 5, Hours of Work (Cd. 8186).
3 Memorandum No. 2, Welfare Supervision (Cd. 8151).
conditions of employment as well as the wages, of women workers to whom the leaving certificate regulations applied. As regards women, therefore, the powers of the Department extended not only to national factories and controlled establishments, but also to a certain number of uncontrolled firms, and the extension of the power of regulation under the Munitions of War Act of August, 1917, to "female workers employed on or in connection with munitions work in establishments of all classes" hardly widened the possible sphere of compulsory welfare. The Treasury Solicitor advised, in 1916, that the Minister had power under the section to give directions to a firm by order to appoint a "lady superintendent" and to supply the necessary buildings and appliances for the preparation, cooking and eating of food. No "direction" was, however, given by the Minister under this section, for it was, according to the first Director of the Welfare Section, "the deliberate policy of the Department, with a view to achieving permanent results, to educate rather than to compel." The only exception to this was in the case of T.N.T. workers, on whose behalf powers were taken under Regulation 35 A.A. of the Defence of the Realm Act, of December, 1916, to insist on the appointment of a welfare worker, and the provision of canteens, cloakrooms, and washing apparatus, "approved by the Welfare Section."

Section 7 of the Munitions of War (Amendment) Act, 1916, gave similar powers to the Department for controlling the conditions of employment of semi-skilled and unskilled men and boys taking the work of skilled men in controlled firms; but in their case also no advantage was taken of these undefined powers of enforcing improved working conditions, except in national factories.

(c) AN EARLY STATEMENT OF AIMS.

The aims of the Welfare Section were laid down virtually, though not formally, in the summary of the scope of welfare supervision given in January by the Health of Munition Workers Committee. After a few months' work these objects were summarised afresh in the department for the benefit of its officers. The object of the work of the Welfare Section was "to raise the well-being of the workers to as high a point as possible in all factories engaged in the manufacture of munitions of war." Such well-being might be considered under the heads of:

(1) workrooms, which should be clean and wholesome, with work suited to the capacity of the worker;

(2) food, for obtaining which there should be adequate facilities at reasonable prices under restful and wholesome conditions;

---

1 "... The Minister of Munitions shall have power by order to give directions as to the rate of wages or (subject so far as the matter is one which is dealt with by the Factory and Workshop Acts, 1901 to 1911, to the concurrence of the Secretary of State) as to hours of labour, or conditions of employment of the female workers so employed."

2 Hist. Rec./H/346/1.
(3) a working day of reasonable length with suitable breaks in long spells;
(4) wages, sufficient for efficiency, with a margin for reasonable recreation;
(5) provision of cloakrooms and other accommodation, overalls, etc.;
(6) reduction to the absolute minimum, of danger to life and health from unprotected machinery and from handling explosive or poisonous substances;
(7) provision of such supervision as might be necessary to ensure in the factories a standard of behaviour such as would not offend an employee coming from a respectable home;
(8) provision, where necessary, of suitable recreation, outside of working hours, especially for those working under strain or on monotonous employment.

These were the headings under which it was suggested that the position of workers inside the factories should be considered, with one important though indefinite addition, "the payment of due consideration to the workers as individuals, securing to each worker consideration and absolute fairness of treatment." Outside the factory, the following objects should, it was urged, be considered:—

(1) The provision of adequate and reasonably comfortable means of transit to and from work.
(2) The provision of good conditions in hostels, where these were established.
(3) The provision of such supervision as might be necessary to ensure that girls and boys living away from home were not demoralised during their free time.
(4) Such supervision of lodgings as would prevent exploitation of the workers, and also prevent women and lads from lodging with disreputable people.¹

The majority of these conditions came within the scope of the Welfare Section's influence though not of its executive responsibility. With some, such as those involving transit, recreation and care of workers outside the factory, it only dealt indirectly during the early stage of its work.

(d) Organisation for Dealing with National Factories and Controlled Establishments.

When the Welfare Section was formed, there already existed the nucleus of a welfare organisation within the supply departments. A woman staff inspector had, since August, 1915, been visiting the National Filling and Explosives Factories as they started work, and was in touch with Boards of Management with regard to the very important and varied questions of the welfare of women in this often dangerous work. Her duties included advice and help in the selection of women supervisors, in the training of the special types of labour

¹ Hist. Rec./H/346/1.
required, and in the provision of doctors and nurses for its care. It had in January, 1916, just been arranged that a woman welfare officer should be provided for Woolwich Arsenal, and a complete scheme for her work and that of a staff of assistants had been drafted. The appointment of a woman inspector to deal with woman labour in National Shell and Projectile Factories, under the direction of Mr. West, was under consideration. It was clearly a question whether direct responsibility for all welfare conditions should be centralised in the new Welfare Section of the Secretariat, or whether the supply departments, responsible for output from the national factories, should also be responsible for the control and working conditions of the labour employed. The latter view was put forward and was maintained strongly a year later by the Director of the Gun Ammunition Filling Factories Division on behalf of the National Filling Factories, to whose medical problems the Filling Division had given special attention.  

The supply departments were, he represented, much stronger in executive powers with regard to the national factories than was the Welfare Section, the functions of which were mainly advisory, and the transfer of responsibility to the Welfare Section would involve "the separation of functions inseparably interconnected." "Output and efficiency of the means, whether human or mechanical, for obtaining output, should remain as heretofore, an undivided responsibility." A compromise in administration was, however, arranged for the first fifteen months of the section's work. At a meeting of Sir H. Llewellyn Smith, Mr. Beveridge, Mr. West, Mr. Geddes, Major Luck (representing the Secretariat and the supply departments concerned), with Mr. Rowntree in January, 1916, a few days after the appointment of the latter, it was agreed that the welfare officers already or about to be appointed to inspect National Shell Projectile or Filling Factories should do so as already arranged; but that they should report both to their supply departments and to the head of the Welfare Section. The latter should only communicate with Boards of Management through the staff inspectors or their departmental chiefs, and these inspectors should only carry out Mr. Rowntree's suggestions with the approval of the supply departments. Similar agreements were made subsequently with the Trench Warfare Department and with Woolwich Arsenal.

These arrangements did not prove workable in practice, except in connection with the National Shell and Projectile Factories, and attempts to improve on them were unproductive. The argument for the necessity of undivided control of output and of labour appeared cogent, but it resulted in the course of the year in the emergence of a group of miniature welfare organisations within the Department, with no common policy as to the very serious medical problems that were developing, or as to the type of supervisor or the standard of welfare to be recommended. When, therefore, the welfare work of the Department was reorganised in April, 1917, all duties of inspection were concentrated in the Welfare Section. The latter took over from

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1 M.W. 81954/2.  
2 See Chap. IV.  
3 L.R.W. 218/17.  
4 M.W. 81954.  
5 M.W. 162868.  
M.W. 150529.
the supply departments their travelling officers, and assumed responsi-

bility for the maintenance of standards of welfare (e.g., with regard to

the T.N.T. regulations) in national factories, although executive

authority for carrying out the directions of the Welfare Section

remained with the supply departments. This arrangement met the
difficulty at first raised by the Filling Division that a section "divorced
from close contact with the supply departments" would tend, from
lack of the latter's intimate acquaintance with the real and ever-
changing needs of production, to lay down "impracticable standards,"

disposed on the whole satisfactorily of an administrative problem
that recurred elsewhere in other matters, such as the adjustment of
wages, local disputes and hours of work, in the allocation of functions
between the supply and labour departments of the Ministry.

In dealing with trade firms, the Welfare Section was on ground
untouched by previous organisation within the Department. The
first step taken was to secure a list of all controlled factories in which
as many as 20 women and girls were employed. While this was being
done, a detailed questionnaire was drawn up in the section, relating
to wages, hours, provision of canteens and messrooms, methods of
engaging and supervising women workers, conditions of housing,
transit, etc., and H.M. Principal Lady Inspector of Factories arranged
for her staff to pay special visits to the factories and fill in the question-
naires for the use of the Welfare Section. These reports formed the
basis on which the section took action, and for the purpose of such
action a small staff of women travelling officers was appointed. This
consisted on 1 March, 1916, of a senior and three other officers, whose
number by January, 1917, had increased to 12. By 1 March, 1917,
1,228 factories (employing 275,000 women) out of 1,770 controlled
establishments known to be employing over 20 women had been visited
and reported on. ²

(e) Early Methods and Results.

Periodical visits were made to the same firm by the section's welfare
officers when necessary, in order to secure improvement in working con-
ditions. After the visits of the officers, and the receipt of their reports,
letters were normally sent from headquarters to the firms whose works
had been visited, to re-enforce the recommendations made verbally, a
method of procedure obviously needing much common-sense realisation
of factory conditions, and consideration of the individual firms' existing
standards and capacities, together with careful selection and training
of the travelling officers. If firms proved recalcitrant, which was not
as a rule the case, pressure was brought to bear upon them by personal
interviews with the section or by visits of the superintending engineers
attached to the munitions area offices. The work was necessarily
to some extent experimental during the first year, and its object was,
according to the first Director of Welfare, "as much to enlist symp-
thetic interest in welfare as to make specific suggestions. It ranged
from organising the welfare of a whole factory to advising the best

¹ L.R.W. 218/17. ² Hist. Rec./H/346/1.
way to handle a foreman opposed to women's labour; from a question directly or indirectly affecting women's output, to a question of the most economical kind of soap to remove certain greases or dyes from workers' hands and faces."

Such work is incapable of satisfactory statistical measurement. The following tables, however, summarise some of the results produced by March, 1917, and illustrate the trend of the section's pioneer activities with regard to controlled firms:

**The Creation of Welfare Staffs.**

<table>
<thead>
<tr>
<th>Nature of Appointments</th>
<th>No. of Factories in which Appointments were:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare supervisors</td>
<td>187</td>
</tr>
<tr>
<td>Assistant supervisors</td>
<td>32</td>
</tr>
<tr>
<td>Supervising women or charge hands</td>
<td>142</td>
</tr>
<tr>
<td>Matrons</td>
<td>42</td>
</tr>
<tr>
<td>Lady doctors</td>
<td>2</td>
</tr>
<tr>
<td>Nurses</td>
<td>42</td>
</tr>
<tr>
<td>Women with first-aid qualifications</td>
<td>81</td>
</tr>
<tr>
<td>Attendants for cloakrooms, etc.</td>
<td>58</td>
</tr>
</tbody>
</table>

**The Provision of Welfare Accommodation.**

<table>
<thead>
<tr>
<th>Nature of Improvements</th>
<th>No. of Factories in which Improvements were:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washing—</td>
<td></td>
</tr>
<tr>
<td>(a) new</td>
<td>93</td>
</tr>
<tr>
<td>(b) improved</td>
<td>118</td>
</tr>
<tr>
<td>Sanitary conveniences—</td>
<td></td>
</tr>
<tr>
<td>(a) new</td>
<td>37</td>
</tr>
<tr>
<td>(b) improved</td>
<td>44</td>
</tr>
<tr>
<td>Cloakrooms—</td>
<td></td>
</tr>
<tr>
<td>(a) new</td>
<td>57</td>
</tr>
<tr>
<td>(b) improved</td>
<td>36</td>
</tr>
<tr>
<td>Canteens (per Canteen Committee, Central Control Board) and messrooms—</td>
<td></td>
</tr>
<tr>
<td>(a) new</td>
<td>78</td>
</tr>
<tr>
<td>(b) improved</td>
<td>79</td>
</tr>
<tr>
<td>Rest Ambulance Rooms—</td>
<td></td>
</tr>
<tr>
<td>(a) new</td>
<td>73</td>
</tr>
<tr>
<td>(b) improved</td>
<td>17</td>
</tr>
<tr>
<td>First aid appliances</td>
<td></td>
</tr>
<tr>
<td>Seats in workrooms</td>
<td>55</td>
</tr>
<tr>
<td>Supplies of overalls or other protective clothing</td>
<td></td>
</tr>
<tr>
<td>Supplies of caps</td>
<td>89</td>
</tr>
<tr>
<td>Supplies of safer pattern caps</td>
<td>92</td>
</tr>
<tr>
<td>Recreation facilities</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

¹ Hist. Rec./H/346/1.
In addition to the above appointments and to the improved accommodation secured, the travelling officers had, as has been said, visited for the first time 1,228 works employing 275,000 women and had revisited 812, employing 416,000. They had arranged training for welfare supervisors in 56 factories, arranged for firms to inspect model accommodation for women in 17 cases, had paid special visits to advise firms on difficulties arising out of the employment of women in 11 cases, had secured breaks for lunch and tea in long spells of work in 37 cases, had supplied memoranda, patterns of protective clothing, respirators, special gloves, etc., in a number of cases, and had referred a large number of complaints of breaches of regulation to the Home Office, or to the appropriate branch of the Ministry of Munitions.

The appointment of women welfare supervisors in factories heads the first of the foregoing summaries of results. It was one of the primary objects of the section to secure their appointment in all works in which the number of women employed and the conditions of their employment justified this, and it was, with this limitation, one of the almost invariable recommendations made by the section’s travelling officers. In order to facilitate their appointment, the section formed a panel of suitable women, arranged for their interviewing, and when necessary for their training. During the year, 2,500 applications for posts as welfare supervisors were received and classified; 2,000 were rejected as unsuitable or withdrew their applications; 280 were placed on the selected list and classified as suitable for posts as welfare supervisors in large, small or medium factories, or as caterers or hostel matrons. The number of welfare supervisors appointed directly through the section was 205 (including those for national factories), and probably 200 more were appointed through the stimulus given.  

No compulsion was exercised on controlled establishments with regard to the appointment of welfare supervisors, except (later), as has been explained, in the case of T.N.T. workers. Even in the national factories it was decided, in January, 1916, at the inauguration of the section, that the Boards of Management should only be "persuaded" by the inspectors of the supply departments to appoint supervisors and that the functions of such supervisors should be determined by the Boards appointing them.  

The Minister, however, in April, 1916, ruled that supervisors should be appointed in all national factories where women or young persons were employed, and that they should be approved by the Welfare Section; and in May all National Shell and Projectile Factories, with the exception of the Belgian factory at Birtley, received an emphatic circular to this effect. The appointment of lady superintendents or welfare supervisors was pushed forward during the year in national factories, and served to some extent as a precedent for their introduction in controlled establishments.

In April, 1916, the section took up the question of welfare supervision for boys. Visits were made during the year to 346 out of 950 controlled firms known to employ more than 50 boys. A memorandum on welfare work for boys was drawn up and sent to employers. Thirty-
eight welfare supervisors for boys (15 from the section’s panel) were known to have been appointed by March, 1917, and a number of employers had expressed their readiness to make appointments later. The dearth of suitable welfare supervisors for boys, at this stage of the war, inevitably hampered the development of this side of the section’s work.

The inauguration of similar work among men was considered, and discussed with labour leaders and others, but nothing definite was attempted in the first year of the Welfare Section’s operations.\(^1\) The establishment of canteens, which was developing rapidly at this time by the action of the Central Control Board in conjunction with the Welfare Section, was, however, a very definite contribution to the increased comfort of men munition workers.

The section began the systematic inspection of hostels for women munition makers at the end of the year 1916, inspecting not only those in which the Ministry was directly interested, but also those managed by voluntary organisations. About 150 hostels were considered at this time to require inspection.\(^2\)

The section, in its introduction of welfare work, was deliberately educational in its methods. For this reason it refrained, as has been explained, from forcing non-essential improvements on reluctant employers, and from insisting on their accepting welfare supervisors against their will, although it must be admitted that in some cases firms, large and small, stated that they only made such appointments in order to meet the wishes of the Ministry. “Real betterment of conditions,” wrote Mr. Rowntree,\(^2\) “springs in the last analysis from the conviction in the mind of the employer that here lies his plain duty, a duty which does not conflict with his business interests but promotes them, since it is obvious that workers who are in good health and are provided with the amenities of life are more efficient workers.” In order to convince employers and workers and the world of consumers that the welfare movement in industry was really desirable, special measures were taken to secure publicity in the Press for the welfare policy of the Ministry of Munitions; and from the summer of 1916 large numbers of articles on “Welfare” were contributed by well-known employers, such as Sir W. Lever and Mr. W. L. Hichens, by economists such as Professor Ashley, and others, and were inserted both in trade and labour journals and in the London and provincial papers. Perhaps the tone of these contributions appeared to critics to be too uniformly laudatory of the special “welfare” theories, and they certainly for this reason in some cases stirred the suspicions of labour. But they served a useful purpose as propaganda, and the section attributed to them direct results, such as applications for information and for help in securing supervisors, etc., as well as indirect effects in the formation of public opinion.

\(^1\) L.R.W. 2433; M.W. 162868.  
\(^2\) Hist. Rec./H/346/1.
III. Extension of the Work.

(a) Change of Personnel.

In March, 1917, Mr. Rowntree left the Department on his appointment to take up work on the Central Reconstruction Committee, and the work of the Welfare Section was reorganised and greatly expanded, although the principles laid down in the previous year remained as a basis. Dr. E. L. Collis, a Medical Officer under the Home Office and a member of the Health of Munition Workers Committee and the T.N.T. Advisory Committee, became Director of the section. The separate staffs of inspectors for National Shell and Projectile, Filling and Trench Warfare Factories, were amalgamated and became part of the Welfare Section, together with the Welfare Officers who dealt with controlled establishments. This change in administration was, wrote Dr. Addison on 19 April, "necessary in the interests of the State in relation to workers in order to consolidate the experience of those charged with welfare schemes, so as to evolve a well-considered and properly balanced policy and conduct." It was, however, clearly stated in the general office memorandum which announced this reorganisation a week later that, "so far as ordnance and national factories are concerned, the function of the section is limited to inspection and is not executive; i.e., its business will be not to arrange for welfare and health, but to see that proper standards of both are maintained in the factories under the control of the appropriate Labour Supply Departments." The visiting of factories was arranged on a territorial basis, the inspectors or welfare officers in the service of the section being (with the exception of the small group who visited "medical factories" from headquarters, and of those responsible for the numerous "government examiners," who remained outside the Welfare Section) attached to the eight area offices and to the staffs of the chief investigation officers appointed at the end of the previous year to act as the local officers of the Labour Regulation Department. The work of the representatives of the Ministry concerned from different points of view in the local regulation of labour was therefore, to some extent, concentrated. At the same time the work of the section developed on more specialised lines than had been possible with the small staff of the previous year.

(b) Development of the Health Side of Welfare Work.

Greater insistence was laid on care for the workers' health as distinguished from their general well-being, and the section became known as the Welfare and Health Section.

In March, 1917, the regulations for T.N.T. workers to which reference has already been made had been issued, and the responsibility for a considerable portion of their observance had been placed on the Welfare Section. In May the Medical Officers of the Filling Factories Section joined the Welfare and Health Section, and a medical sub-section was built up (under Dr. W. J. O'Donovan) which (a) dealt with the health of workers on T.N.T. processes; (b) supervised the

1 L.R.W. 218/17.
appointment of factory doctors and the special welfare provision required for workers in dangerous occupations; (c) carried out special inquiries, e.g., on maternity problems among munition workers. Factories and establishments where poison gases were manufactured or handled remained under the medical supervision of Dr. F. Shufflebotham who had had charge of this work from the first manufacture of poison gases and lethal bodies. At the same time a research sub-section (under Captain M. Greenwood) was inaugurated, which carried out investigations, supplementing those of the Health of Munition Workers Committee into such questions as food values for munition workers, factory wastage, tuberculosis in munition works and the medical causes of bad time-keeping. This sub-section was in special touch with the problems of restrictions on hours of labour, and was in 1917 under the direction of the secretary of the inter-departmental Hours of Labour Committee.

(c) Other Developments.

Other sub-divisions were made at this date in the work of the section. The care for munition workers outside the factory, the need for which had been already indicated by Mr. Rowntree and by the Health of Munition Workers Committee¹ was definitely organised, and a staff of “extra-mural” welfare officers was appointed. Boys’ welfare received special attention, and Mr. R. Bray, chairman of the London Juvenile Advisory Committee, took charge of a new sub-section, with a small staff of local officers to visit firms on behalf of boys’ welfare on lines similar to those already laid down with regard to women and girls.²

The inspection of hostels for munition workers developed in 1917 as a part of the section’s “extra-mural” work. Five inspectors of private hostels and of those owned by the Ministry were at work during the following summer, and a number of local investigators into lodgings were appointed in the course of the year to relieve the discomforts of the imported munition worker. When in May, 1917, the

¹ Memorandum No. 17, Health and Welfare of Munition Workers Outside the Factory (January, 1917).
² The following table explains the distribution of the local welfare officers in the Chief Investigation Officers’ local headquarters at the beginning of 1918. (In June, 1918, the work of the “extra-mural” and “intra-mural” officers was amalgamated:—

<table>
<thead>
<tr>
<th>District</th>
<th>“Intra-mural” officers (women)</th>
<th>“Extra-mural” officers (women)</th>
<th>Boys’ officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>London and S.E.</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>North-East (Newcastle)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>South-Western (Bristol)</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Scotland (Glasgow)</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>West Midlands (Birmingham)</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Yorkshire (Leeds)</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>North-Western (Manchester)</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Barrow</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Wales (Cardiff)</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>On probation</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>16</td>
<td>13</td>
</tr>
</tbody>
</table>
"Billeting of Civilians" Act was passed, and a Central Billeting Board was formed, the section was associated with its work, and with that of the Food Section appointed in March, 1918, to take over, in the period of food shortage, the responsibility for munition workers' canteens, hitherto exercised by the Central Control Board.

The special organisation to secure publicity for welfare work was discontinued.

(d) Organisation in 1918.

As a result of these developments the organisation of the Welfare and Health Section of the Ministry consisted in the summer of 1918 in an expert staff at headquarters with a staff of local welfare officers stationed at various centres throughout the Kingdom. The work of the section fell into three main divisions:—

1. Medical work, described briefly above. A small staff of medical specialists at headquarters received reports from the doctors (full time or part time) attached to munition factories in which dangerous work was performed, and a separate staff of four or five women officers visited those factories in connection with their special welfare problems.

2. Welfare and health of women and girls, to deal with which there were five women officers at headquarters and forty-six stationed locally.

3. Welfare and health of boys, for which there was a staff of two at headquarters and fourteen in the country.

The work of the two latter divisions fell under the following main headings:—

(a) Securing the installation of welfare supervisors, and
(b) the provision, among other things, of canteens and messrooms, cloakrooms, washing accommodation, overalls, improved lighting, seats;
(c) advising the keeping of personal records, referring especially to sickness and injury;
(d) assisting and advising welfare supervisors in factories.

They also included the improvement of transit facilities and the provision of lodgings for munition workers and of relief for “stranded workers,” the promotion of healthy recreation schemes of all kinds and educational classes, the establishment of crèches for munition workers' children and the provision, when necessary, of maternity homes. In connection with the two latter requirements a special staff of three at headquarters dealt with reports from the local welfare officers in collaboration with the Local Government Board.

In addition to this system of co-ordinated welfare work throughout the country and to the system of hostel inspection described above, the Welfare Section also maintained, by means of personal interviews and local interviewing boards, a panel of persons desiring to become welfare supervisors. By 30 November, 1918, 550 supervisors for women and 275 for boys had been appointed from the department's panel.
A table illustrating the visits to firms by the three groups of welfare officers is given, with the reservation previously made as to the value of such statistics.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Firms.</td>
<td>Nos. employed.</td>
</tr>
<tr>
<td>Welfare Officers for Women</td>
<td>19</td>
<td>5,885</td>
</tr>
<tr>
<td>Welfare Officers for Boys</td>
<td>17</td>
<td>1,117</td>
</tr>
<tr>
<td>Welfare Officers for Medical work (May, 1917, to August, 1918).</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

On these lines, the organisation and work of the section continued to the date of the Armistice. With the dissolution of the Labour Regulation Department of the Ministry, the Welfare and Health Section was gradually broken up. The sub-section for Boys’ Welfare was on 1 December, 1918, transferred to the Training Section of the Ministry of Labour, and early in the following year the greater part of the remainder of the section was also attached to the Ministry of Labour, after much intensive work in assisting in the demobilisation of munition workers and in winding-up, or providing for the future of, existing welfare schemes.

IV. Relations with the Home Office.

(a) Spheres of Work.

The welfare policy of the Ministry of Munitions inevitably brought its work into contact with that of other Departments, and primarily with that of the Home Office, whose administration of the Factory Acts was the foundation on which must be based any further care for the workers’ health and comfort such as that promoted by the Ministry. For some years before the war the Factory Inspectors’ annual reports had recorded the growing movement in factories towards a standard of hygiene and of amenities much above that prescribed by law, and the Home Office Inspectors were in January, 1916, the only officials in direct and constant contact with many of the problems taken up by the new Welfare Section. It has been explained how women Factory Inspectors made in the early months of 1916 the preliminary investigations which first served as an introduction to the work of the Welfare Section in controlled establishments.

The work of the Welfare Section was brought later into direct touch with that of the older Department by a transfer of officers. Thus one of the women Factory Inspectors was lent to the Welfare Section.

1 (Printed) Weekly Report No. 162, IX. (5.10.18). “Numbers employed” refers in the first and third lines to the number of women and girls, in the second line to the number of boys, employed in the factories visited.
in April, 1917; the second Director of the section was previously on the medical staff of the Home Office; and in 1918 Miss Squire, the Deputy Principal Lady Inspector of Factories, became head of the Women’s Branch of the Welfare Section. This did not, indeed, completely remove the difficulty of delimiting spheres of work, nor in adhering to these delimitations in practice. Definite attempts were, however, made to ensure this. When a staff of travelling officers for welfare inspection was formed by the Ministry of Munitions, special precautions were taken to prevent the overlapping of functions possible when two sets of officials were visiting factories for similar though not identical purposes. Welfare officers were instructed to “make no inspection with regard to matters within the province of the Home Office. If officers became aware during their visits of matters requiring the attention of the Factory Inspectors, such matters should be noted and sufficient inquiry made to enable the complaint to be reported to the Factory Department, but no other action, verbal or otherwise, must be taken. These matters might be defined as those within the requirements of the Factory Act and Orders and the special rules made thereunder.”  

(Sanitary defects or serious faults in ventilation would be examples of matters to be thus referred by welfare officers.)

Fundamentally, the functions of the welfare officer within the factory—with regard to such matters as clothing, rest rooms, and canteens—began where those of the Factory Inspector left off, and the border area in which overlapping was possible shrank as certain forms of welfare provision passed from the category of persuasion to that of compulsion.

(b) WELFARE ORDERS BY THE HOME OFFICE.

The indefinite powers of compulsion possessed by the Department under the Munitions of War Act to induce firms to improve their working conditions were, as has been said, deliberately not exercised. Much more definite powers were possessed by the Home Office, under the “Police, Factories, etc., Miscellaneous Provisions Act,” of August, 1916; although these powers of enforcing welfare provision were during the war used almost as sparingly as were those of the Ministry of Munitions. Orders were, however, issued for the supply of drinking water in all factories and workshops employing more than 25 workers, for the provision of first-aid equipment and ambulance rooms, at blast furnaces, copper and iron

1 L.R.W. 1703. This delimitation of duties between welfare officers and Factory Inspectors was made more precise a few days before the Armistice. (Welfare Section circular 1113.)

2 Police, Factories, etc., Miscellaneous Provisions Act, Section 7: “Where it appears to the Secretary of State that the conditions of employment in any factory or workshop are such as to require special provision to be made at the factory or workshop for securing the welfare of the workers employed therein in relation to the matters to which this Section applies, he may by Order require the occupier to make such reasonable provision therefor as may be specified in the Order.

The following shall be the matters to which this Section applies:—

“Arrangements for preparing or heating and taking meals; the supply of drinking water; ambulance and first-aid arrangements; the supply and use of seats in workrooms; facilities for washing; accommodation for clothing; arrangements for supervision of workers.”

3 Statutory Rules and Orders No. 1068 (12/10/17).
mills, foundries and metal works\(^1\); for the provision of protective clothing, cloakrooms, messrooms, and washing facilities in tinplate works,\(^2\) and for the provision of seats for shell workers turning or machining shells or shell bodies\(^3\); in addition to other orders which did not affect munition trades. Each of these orders represented a point which welfare officers had been previously directed to bring strongly to the notice of factory owners, and as each order took effect, the welfare officers ceased to intervene further in the provision which was thus made compulsory.

The future relation of welfare work to that of the Factory Inspectors' Department was left indeterminate at the date of its transfer from the Ministry of Munitions. During the war the latter possessed, as has been said, both as a great contracting Department and as an employer of labour on a scale unprecedented in the country, unique facilities for pushing forward and for directing the extension of industrial welfare. These facilities it utilised to give an impetus to existing schemes for improving working conditions in certain industries such as no other three-year period had produced.

V. Canteens and the Central Control Board.\(^4\)

\(^{(a)}\) Establishment of Canteens in Munition Works.

The provision of munitions canteens, which was the first step taken in securing the welfare of munition workers, originated outside the Department, and before the establishment of the Welfare Section. Historically, it was a by-product of the "prohibition campaign" launched by Mr. Lloyd George at the end of February, 1915. In the course of the debates in the House of Commons on the proposal to prohibit, or alternatively to limit, the drink trade during the war, it was more than once represented that the supply of reasonable opportunities for obtaining food in or near the works would diminish the force of the "lure of drink," which was said to be retarding production.\(^5\) On 10 June an Order in Council was issued, under Defence of the Realm Act No. 3, establishing the Defence of the Realm (Liquor Control) Regulations, 1915, by which the Central Control Board (Liquor Traffic) was constituted "the prescribed Government authority for the purposes of the State control of the liquor traffic in areas to which the regulations are applied."

\(^1\) Statutory Rules and Orders No. 1067 (12/10/17).
\(^2\) Statutory Rules and Orders No. 1035 (-10/17).
\(^3\) Statutory Rules and Orders No. 824 (3/7/18).
\(^4\) A fuller treatment of this subject will be found in Vol. V, Part IV.
\(^5\) Parliamentary Debates (1915), H. of C., LXXI, 354ff., 868 ff. Thus, Mr. Wilkie (of the Shipwrights' Society) in the Debate of 10 May, 1915, on the new Defence of the Realm Act, ended his protests against the character of the much-discussed White Paper on Excessive Drinking in Shipbuilding and Munitions Areas, which made men who "were doing the right thing feel they were maligned," with the very practical recommendations frequently made at the time by representatives of labour that every large works should, on the analogy of the Royal Dockyards, be provided with "an institution at which food and drink could be bought to meet especially the needs of workmen coming from a distance."
The work of the Central Control Board was a very large and important experiment in State control of the liquor trade, combined with constructive work in the provision of alternatives to the public-house, of a type often suggested, but not carried out, in time of peace. As such its history belongs elsewhere. But, under the fifth liquor control regulation, the Board had powers to "maintain refreshment rooms," and it very early appointed a Canteen Committee to investigate the possibilities of this work. It was in its relations with this Committee which, under the chairmanship of Sir George Newman, undertook detailed responsibility for the establishment of canteens in munition works, that the Ministry of Munitions came into administrative connection with the industrial canteen movement.

In a letter to the Ministry of Munitions, on 24 August, 1915, the Board laid stress on the need for canteens in or near munitions works. They expressed the view that the duty of providing canteens rested primarily with the employers, and asked whether the Department could not see its way to provide such canteens in Government factories, and to encourage their provision in controlled establishments, especially such as were in the process of construction. In further correspondence the Board pointed out the special need for canteens in the new Filling Factories, as their employees, being compelled to wear special factory clothing, could not leave the factory for refreshments. On 16 October a letter from the Ministry to the Central Control Board stated that the Minister was prepared to accept responsibility for the provision of canteens, where necessary, at national factories, and to encourage their provision at controlled establishments; and on 19 November the Minister further stated that, by arrangement with the Treasury, capital expenditure on the provision of canteens by controlled firms might be written off against current profits for the purposes of Part II. of the Munitions of War Act of 1915, if such expenditure was approved by the Control Board.

On 3 January, 1916 (when, it may be noted, the Welfare Section of the Department had just been formed), the Ministry of Munitions asked the Board to become responsible for the organisation of canteens in the Royal Arsenals and the National Projectile, Filling and Explosives Factories, where such provision had not already been made. The Ministry undertook "to provide the building, lighting, heating and equipment of canteens," and desired that "they should be run so as to be self-supporting, including the cost of staff." The Board's reply, intimating willingness to accept responsibility, was dated 22 January. The Board made it clear that it would be no part of its functions to organise each individual canteen, and that, while in sympathy with the Minister's desire that the canteen should be self-supporting, they considered that this "should be regarded rather as an

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1 Cf. Reports I. to IV. of the Central Control Board. 1915 to 1919; and The Control of the Drink Trade, by Henry Carter (of the Central Control Board, 1918.

2 M.W. 25683/1 and /2.

3 M.W.28683/2.

4 M.W.45309 ; C.R. 3235.

5 M.W. 28683/7.
ideal than as a condition where women were employed." Sir George Newman more than once subsequently represented that it might be worth while, on educational grounds, to run industrial canteens at a temporary loss in order to popularise the movement. The Health of Munition Workers Committee, under the same chairman, strongly emphasized at the same time the value of canteens as an aid to efficiency.

In a circular announcing the arrangements that had been made, which was sent to the heads of national factories on 16 February, 1916, it was made clear that the responsibility for the proper management of the canteen, when established, would rest with the responsible authority in each factory, subject to the supervision of the Canteen Committee of the Central Control Board. The circular called attention to the desirability of giving the workers some share in the control of the canteen, and thus initiated in some factories the welfare functions of the works committees subsequently organised.

(b) The Canteens Organisation of the Central Control Board.

The financial agreements thus reached were open to various interpretations, and reference is made elsewhere to the understanding on the point reached after detailed discussion in January, 1917. A special organisation for canteen work was developed by the Central Control Board, and the Welfare Section of the Ministry of Munitions referred to the Board all proposals for the establishment of canteens discussed between controlled firms and the Department's welfare officers. The Board appointed trained inspectors, who investigated, at a personal visit, the need for each proposed canteen, while H.M. Office of Works scrutinised plans, specifications and bills of quantities, insisting on the invitation of competitive tenders, and frequently redrafting entire schemes. This, it was claimed, undoubtedly resulted in the saving of many thousand pounds, and in the erection of more efficient canteens. Neither the Ministry of Munitions nor the Board intervened in the financial control of canteens once established in controlled establishments. It was, however, estimated that a large proportion did not cover the cost of their working.

With regard to national factories, on the other hand, the Department took into consideration the question of running expenses. In March, 1917, it was found that the majority of these canteens were working at a loss. Special steps were therefore taken by the supply departments to cover these deficits and prevent their recurrence. The provision of canteens, however, in both trade and national factories often included messroom accommodation, which could hardly be expected to pay its way.

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1 M.W.28683/8.
2 Memoranda Nos. 3, 6, 11, 19 and Final Report of Health of Munition Workers Committee.
3 See Appendix I.
4 Hist. Rec./H/346. 1/3.
The Board's inspectors visited periodically canteens of both the national factories and controlled firms, and offered expert advice when necessary for their management. Such advice was further available, in complete detail, both in the pamphlets of the Health of Munition Workers Committee, who drew up their first report on canteens in November, 1915, and in a sixpenny booklet, *Feeding the Munition Workers*, issued in 1917 by the Central Control Board.

(c) The Food Section of the Department.

The shortage of food in January, 1918, convinced the Minister that he must assume responsibility for feeding munition workers, and a Food Section was formed in the Labour Regulation Department, whose functions were to inspect canteens in national factories, and to advise the factory management on food questions, to advise controlled firms on the provision and maintenance of canteens, and to communicate with the Board of Inland Revenue on the finance of such provision; and to act as the link between the Ministries of Munitions and Food on all questions concerning the feeding of munition workers. To this body, accordingly, the canteens organisation of the Central Control Board, with its staff of inspectors, was transferred. For the last eight months of the war, therefore, the Department undertook both the maintenance of food supplies and the general superintendence of all munitions canteens.

VI. Finance.

Firms urged by the Department to make welfare provision for their workers often represented both that the cost of building work was exceptionally heavy during the war, and also that any provision made for canteens, rest rooms, etc., for women workers would have little or no value after the war, when the female staff would have dispersed, and the whole number of employees would probably have greatly diminished. To meet this objection a system was evolved by which a great part of the cost of such provision fell on the taxpayer, on the assumption that firms were being called upon to make special provision for the efficient output of munitions, and that this national need had perforce to be met without regard to convenient seasons, or to the future advantage of the employer. The cost of canteens, welfare accommodation, salaries of supervisors, recreation schemes for munition workers, etc., was therefore met to a greater or less extent out of excess profits, or rather, from the surplus on the year's working from which the excess profits tax or, earlier, the munitions levy, was drawn. Details of these provisions are given in Appendix I. Broadly, small expenses for such purposes, if approved by the Welfare Section, might be returned as a portion of the year's working expenses. In the case of larger expenditure on schemes approved by the Welfare Section, and of some permanent value to the firm, the difference

1 Hist. Rec./H/346, 1/2. L.R.F. 120/129,
between their present and (probably diminished) post-war value to the firm was estimated, and, like the working expenses just referred to, might be deducted from the year's surplus liable to the excess profits duty.

The work of the Welfare Section was, as has been repeatedly said, to a great extent educational, and was improvised to meet an unparalleled emergency. As in other work meeting the requirements of a national emergency or of education, it might fairly be argued that its cost should be borne, or shared, by the community. Whether such assistance should be given by "allowance" from taxation or by direct grant was a matter of some controversy. The adoption of welfare measures was, however, much facilitated by the fact that financial concessions were secured after the creation of the Ministry of Munitions.
CHAPTER II.

WELFARE IN FACTORIES.


(a) "WELFARE" AND "WELFARE SUPERVISION."

Welfare work in factories may be considered from two points of view—the provision of good conditions for the health and happiness of the workers, and the utilisation of such provision. The first is to a great extent a question of accommodation (including equipment for meals and for treatment of accidents and illness); the second involves problems of labour management in a wide sense, and of supplying the human element, without which the most elaborate accommodation may be useless. Welfare work, as organised by the Ministry of Munitions, was sometimes believed to consist only in the appointment by a firm of a new official, with anomalous functions, of a type known only to a few benevolent employers before the war, who should represent this "human" side of labour management. Although however, the welfare supervisor who, at the instigation of the Department, "looked after" the women and girls and boys in munition works, had, in many cases, an important part in the administration of the factory, yet his or her appointment was not an integral part of a welfare policy. To the supervisor was indeed entrusted much of the maintenance of a good standard of working conditions, because if a policy is to be effective it must normally be the duty of some one person or group of persons to carry it out; but the work of securing the effective interest of managers in the well-being of their factory workers could take place without any formal system of welfare supervision, entrusted to one member of their staff. It was the main part of the work of the Ministry's travelling welfare officers to stimulate this interest, and to supply practical suggestions and information in order that it might have prompt results.

(b) WELFARE INSPECTION.

When the Women Factory Inspectors of the Home Office undertook, in January, 1916, the preliminary inquiries into welfare conditions in munitions factories for the new Department, they supplied the Ministry of Munitions with a series of most valuable cross sections cut across the position of women in industry in a year when that position was changing rapidly. The 1,396 factories (employing 200,000 women and girls) visited by them in the course of the year were roughly divided into three classes, of which Class A contained 31 per cent., Class B 49 per cent., Class C 20 per cent. Class A was satisfactory. B and C conditions meant, in varying combinations, partial or complete
lack of messroom accommodation or facilities for cooking food; inadequate or non-existent cloakrooms and washing appliances, even for dusty and greasy occupations; lack of supply of seats; need of first-aid and rest rooms; supervision even of numerous young girls by men only, and other defects—in factories working mostly twelve hour shifts, and reached often by considerable journeys from the workers’ homes.¹

The duty of subsequent visitation, in order to secure improvements in such conditions, was at once taken over by the welfare officers of the Ministry of Munitions, who, as has been said, were in 1917 and 1918 stationed in some eight areas, with some 400 to 500 factories on the roll of each district. They visited at this time all controlled establishments, stores, and national factories employing over fifteen women (paying the first visit without, as in the previous year, awaiting a preliminary report from the Home Office), and went to factories or workshops with an even smaller number of women, on request for information by other Departments or on receipt of complaints. So far as was possible with a limited staff, factories received routine visits once in six months, but quarterly or more frequent visits were paid if there appeared to be special need, on account of bad working conditions which were in urgent need of remedy, or the appointment of an inexperienced welfare supervisor anxious for advice or help.

Women welfare officers were specially required to give attention to the following matters²:

1. The accommodation provided for the workers including—
   (a) Canteens and messrooms;
   (b) Cloakrooms;
   (c) Washing accommodation;
   (d) Rest rooms.

2. The health and personal records of the women employed, in so far as such records were kept.

3. The nature of the work done and the method of technical control (by foremen or forewomen, charge hands, etc.).

4. The method of engagement and dismissal.

5. The supervision and control exercised over the women (on day shifts and night shifts).

6. The provision and suitability of protective clothing.

7. The provision of seats and lifting tackle.

They also reported on the supply of first-aid appliances, ambulance rooms, and drinking water, until, in the late autumn of 1917, the Home Office orders on these subjects placed the duty of securing the provision of these in a very large number of munition works in the hands of the Factory Inspectors.

The welfare officers found in their early visits, in accordance with the functions thus assigned to them, an exceedingly variable range of problems. Generally, though with some very marked exceptions,

¹ Cd. 9108 of 1918, p. 9.
good structural provision for the workers’ comfort as well as for production had been made or was readily undertaken in large or new factories. Especially in the national factories, and (later) the new aircraft works, Boards of Management or owners were, normally, very ready to provide a high standard of accommodation. It was in the older factories, such as some of the long-established general engineering works, and the comparatively small firms engaged in the numerous marginal munitions industries, that there were serious difficulties in securing a good standard, on grounds of indifference (owing perhaps to the transitory nature of the employment of women), or of great pressure of business among the management, or of lack of sites for building.\(^1\)

In some cases, rough working conditions for women and girls were the natural result of their taking on the work of men (e.g., in shipyards), who had acquiesced in discomfort as inevitable. A low standard of factory conditions was, however, also found to a marked extent in the districts, such as portions of the Midlands, in which there had been a large amount of industrial work by women before the war. There the factory in which munitions were made was often a building just complying with the regulations of the Factory Acts as to ventilation, etc., where the workers, in the times of greatest pressure, spent the hours from 8 a.m. to 7 p.m., or from 7 a.m. to 9 p.m. or more, with the statutory breaks of one or two hours for meals, taken beside the machines if they lived too far away to go home, with no facilities for resting, washing, warming food or drying clothes, or treating accidents. Such a low standard usually, though not always, coincided with a low level of wages.\(^2\) The same discomforts had been accepted by generations of workers (men and women), but they were intensified during the war by the great increase of numbers employed, often in the same space, and by the much longer hours of work. The improvement of such conditions required the common-sense treatment of a number of semi-domestic details. The welfare officers’s reports in connection with what has been called “structural” welfare indicated the need in many cases for great improvement, but also showed the changing attitude of employers, often under very difficult circumstances, to their workpeople’s comfort. The following are some of the points on which the welfare officers reported to headquarters.

_Canteens and Messrooms._—The provision of these had been warmly urged by the Health of Munition Workers Committee,\(^3\) had been undertaken in national factories in the first autumn of the Ministry’s work, and had been facilitated by placing the initial cost of them in controlled establishments to a very large extent upon the community.\(^4\) Employers opposed to their construction explained

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1. The difficulty of finding space for improvements, which often before the war impeded the betterment of the older workmen’s dwellings, applied equally to the factory in a crowded area.

2. Cf. C.E. 1260/15; C.E. 1462/15; C.E. 152/15; C.E. 758/15, etc.

3. See Final Report of Health of Munition Workers Committee (Cd. 9065, 1918) Section IX, and Appendix I, below.

4. See Appendix I.
either that there was no room for them on the factory premises, or
that, if established, their maintenance would add to the number of
their unproductive employees; that the workers lived near home and
preferred to go back for their meals (obviously a valid reason, especially
in the case of mothers of families), or that they preferred to eat
separately, so that their neighbours should not see the food brought
by them from home,\(^1\) or, finally, that the workpeople were quite
contented with existing conditions. On the whole, however, employers
became convinced of the desirability of some such provision, which
was normally insisted on by the Home Office in granting permission
for women to do night work\(^2\); and there was a growing demand for
it among workers—a demand which increased with the rise in women's
wages and with the food difficulties of 1917-1918. Messrooms were,
on the whole, more in request than canteens, except in very large
factories. The popularity of either depended, by universal experience,
on their management. If there was quick service and variety of
food (in the case of canteens), cleanliness and good order, the women
were said to be almost too ready to spend the whole of their meal times,
even to the loss of opportunities of fresh air, in the canteen or mess-
room. Either type of room could form a centre for the social
life of the factory, and could supply opportunities for concerts, dances,
etc., when the arrangement of day and night shifts permitted. Both
normally gave most satisfaction when some kind of workers' advisory
committee was attached to their management. It was found that
they were appreciated most by the younger workers (so that in some
cases canteen takings fell off when the younger workmen had been
called up for military service).

By the beginning of 1918 it was calculated that more than two-
thirds of the factories visited by women welfare officers gave canteen
and messroom facilities of some sort. This was a very much larger
proportion than that in the works occupied by men and boys alone.\(^3\)

At the date of the Armistice, 733 controlled establishments (out
of a total of 5,603), with 871,000 employees, were known to the
Department to be provided with canteens. The great majority of
national factories also had canteens.\(^4\)

Accommodation for Clothing and for Washing.—Cloakrooms in
which the workers could leave their outer clothes were at first often not
desired by the workers themselves, who preferred to hang their coats
and hats beside their machines, so that they might be available
promptly at breaks in the working day, and might also be safe from
theft. Clearly, however, it was much better to have facilities for

\(^1\) "This feeling is so strong that in some North Country messrooms where
tables are provided a strip of wood a few inches high is fixed down the centre
of the table by way of screen." (Welfare Officer's Report, January, 1918.
Hist. Rec./R/346/133.)  "We put up a special messroom which the workpeople
will not use," replied a small firm near Birmingham to the representations of
the Welfare Section in August, 1916. "They bring their own food and are not
desirous of exposing what they have for dinner to their fellow workpeople. They
do not always dine upon roast chicken, consequently they prefer to eat near their
own machines where they have no overlookers." (C.E. 152/15.)

\(^2\) Cf. Chapter V.  \(^3\) Hist. Rec./R/346/133.  \(^4\) Hist. Rec./H/346.1/2.
hanging them away from the workrooms where these were dusty or dirty, and for drying them if they were wet from outdoor work or the long journeys taken by many workers. When special working clothes were required, cloakrooms were obviously essential, and their care, for workers in "danger buildings," was safeguarded by elaborate regulations. Welfare officers found themselves called on to give frequent advice as to the best equipment of cloakrooms, and as to the appointment of cloakroom matrons to keep order and prevent pilfering. A good deal more than half of the factories visited by welfare officers had some such provision by the beginning of 1918.1

If a suitable place in which to keep outdoor clothes was desirable, even more so was provision for washing. "Good" firms had, indeed, realised the need for this before the war if they were to attract a satisfactory type of worker. Opportunities for washing were, however, almost universally found to be deficient at the early visits of the welfare officers, who found it often hard to convince employers, except in the best and most modern firms, that they had not fulfilled their duty in this matter by providing, perhaps, "one broken basin and cold water" to three hundred workers. 2 Here again the workers' own standard of demand reacted upon what was supplied to them. Employers frequently said, with apparent justification, that their workpeople were contented as they were, and had misused such provision of basins, soap and towels as had been made for them in the past. The Welfare Section, however, through its officers, laid much stress on the provision of proper washing accommodation, and supplied advice as to the kinds of soap and towels and of supervision required. It was found that with good conditions, including, where possible, a supply of hot water, the women and girls appreciated the provision made. In only about 30 per cent. of the factories was there, however, said to be really satisfactory provision in January, 1918.1

Protective Clothing.—With the employment of inexperienced women in explosives works, in the manipulation of poisonous chemicals as in the filling factories, in work with machinery however well fenced, in outdoor work—e.g., in shipyards, it became obvious that special clothing must be worn. The Home Office issued in 1917 an illustrated booklet showing the kind of clothing suitable for certain classes of work, and the Department of Explosive Supplies in the Ministry of Munitions arranged to supply overalls and caps at fixed prices, subject, of course, to market fluctuations, and by arrangement with contractors to quote prices for oilproof and waterproof aprons, munition gloves, clogs, boots (rubber and leather), oilskin coats and hats, and woollen serge and lasting cloth suits for acid workers. The welfare officers were able to supply information to firms about these, and helped, in conjunction with the factory inspectors, to design suitable protective clothing. They brought pressure to bear on firms to adopt caps and overalls, especially for shell workers. The wearing of overalls was recommended by the Department in the dilution Circular L. 6 in the autumn of 1915, but could not be enforced

1 Hist. Rec./R/346/133. 2 C.E. 1227/15.
except in the case of T.N.T. workers. They were in some cases unpopular at first with the girls and the cause of temporary strikes; but efforts were made to provide samples which should be becoming as well as useful, and they became accepted as the recognised uniform of munition workers. Employers as a whole were ready to accept the suggestion that they should be worn, and the Welfare Section secured financial help for their provision in certain cases. The question as to their provision and ownership as between the firm and the worker was, however, a source of friction in some cases.¹

The provision of cloakrooms, washing basins or troughs and overalls was an apparently unimportant question. They represented, however, apart from the comfort or safety produced by their supply, an advance, even if small, in the "civilisation" of industry, and from both points of view were urged by the Welfare Section.

Rest Rooms, Ambulance Rooms, First Aid Appliances.—Under the special Welfare Order of 12 October, 1917, it became compulsory from December to provide ambulance rooms or first aid appliances in most of the factories with which welfare officers dealt, and their provision passed to the sphere of the Home Office.² Before this time, however, the Welfare Section had constantly pressed the need for them upon employers. The welfare officers were also frequently engaged in helping to secure good care of such first aid outfits as already existed in dusty corners of many factories, and the appointment of factory nurses and of welfare supervisors with first aid training gave value to such provision. Employers increasingly acknowledged the saving of time, and incidentally of payments under the Workmen's Compensation Acts, produced by prompt and regular treatment of accidents and minor maladies. It was probably this side of "welfare" which received the most unquestioning approval of men and boy munition workers, especially as disabled soldiers began to return to the workshops.

Seats.—The provision of seats, whenever production permitted, might seem an obvious means of preventing fatigue and increasing efficiency. Medical opinion, however, was not clear as to the general necessity for their provision, employers and foremen sometimes shrank from installing them as a possible encouragement to "slackness," and workers were not always anxious for them. Welfare officers, however, frequently drew the attention of employers to the desirability of their provision under certain conditions, and the section was prepared with recommendations as to suitable and conveniently fitted seats—e.g., for lathe work. They were not, however, widely adopted. A special inquiry was made during 1917 by welfare officers with regard

¹ The provision of overalls for women and girls had some effect in raising the standard of men and boys, who had frequently in similar work avoided all "protective" clothing and acquiesced in discomfort. Thus at the first full dress hearing before the Committee on Production in July, 1917, of a claim for higher wages from the newly formed Chemical Employers' Federation, it was urged as a basis for such a claim that the workmen's clothes were destroyed by six or eight weeks of the most careful use on chemical work. (Cf. Committee on Production verbatim reports).

² See p. 18.
to the provision of seats for women engaged on shell manufacture. "Every operation involved was timed, and the possible sitting time for each was carefully estimated. The results were grouped so as to show those operations in which no sitting time was possible, those in which it was possible but was less than one-quarter of the actual machining time, those in which it was more than a quarter but less than half, etc."1 This supplied data for the Home Office Welfare Order of August, 1918, for seats for women shell-makers—the first order rendering the provision of seats in factories compulsory.

Drinking Water.—The provision of this similarly became compulsory in October, 1917, in all factories employing more than 25 persons. Its supply had been previously advocated by welfare officers.2

In securing the prosaic and useful improvements just summarised, the Department facilitated their supply in controlled establishments, which it did not coerce, by securing the large financial concessions to which reference has been frequently made; by helping to select sites for buildings, in conjunction with the Central Control Board and the Munitions Works Board; by supplying (again largely through the Central Control Board) handbooks on food and canteen management; by designing, in conjunction with the Factory Department of the Home Office, and securing supplies of protective clothing; by providing busy managers with information about accessible welfare equipment (first-aid outfits, soapboxes, seats, etc.); and by assisting in the interchange of information between factory managers as to recent developments in welfare provision. This last function was at the time probably one of the most valuable performed by the welfare officers.3

The welfare officers and the Intra-mural Welfare Section at headquarters were to a great extent occupied with questions of accommodation and equipment. But a very important part of their work lay in helping to secure good use of such equipment, and, so far as they were concerned in this, the effective management of women's labour. This led normally (despite the fact already insisted on of the distinction between welfare provision and welfare supervision) to the recommendation of the appointment of a welfare supervisor who should, in the absence of any other organisation for the purpose, be

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1 Hist. Rec./R/346/39.
2 "This is so elementary a need that we might have supposed it would be everywhere provided for. It is not. In some workplaces the only available drinking water for girls working on the fourth floor is in the yard down eight flights of stairs; in others, a long walk to a distant part of the factory, involving loss of money as well as time to piece-workers (to say nothing of the foreman's displeasure) to 'get a drink.' Such difficulties lead not only to discomfort, and, in hot weather or in trades involving exertion to exhaustion, but to danger where the thirsty workers run the risk of typhoid by drinking water intended only for manufacturing purposes." (Women's Trade Union Review, January, 1917.)
3 The Department sanctioned an exhibition by the Welfare and Health Section of a model rest room, dining-room, crèche, etc., at a "National Economy and Welfare Exhibition," in the L.C.C. Hall, in July, 1917. Propaganda work was done in connection with the Department's exhibitions of women's work under dilution held in different parts of the country during 1917. (L.R. 138.)
responsible for the effective employment of both accommodation and labour. In January, 1918, it was calculated that approximately 40 per cent. of the factories on the welfare officers' roll, employing 60 per cent. of women munition makers, had provided for the control in some form of their women employees by a woman. The proportion of munition workers for whose welfare such provision had been made at this date, was, it will be seen, noticeably larger in the case of women and girls than among boy workers.¹

No satisfactory statistics of the extension of industrial welfare and the improvement in working conditions in munition factories can be supplied. The tables on page 10 give some numerical indication of the improvements secured during the first year's work of the Welfare Section, but with the gradual permeation of welfare theories it became impossible to say to what agency specific improvements were due. The welfare officers, however, recorded, in reports from which the following quotations are taken, the change of attitude which was apparent among employers at the beginning of 1918, after two years' work.² It is noteworthy that the process of education which they described included that of workpeople as well as employers.

1. "The general standard of welfare conditions in the factories of this area can be said to have been considerably raised. Factory managers on the whole now realise that the provision of a certain amount of satisfactory accommodation for women is expected of them, and is demanded by the good type of workers. It is not now so necessary to explain to firms the principles of welfare work, as it has been brought to their notice frequently, both officially and by public opinion. Competition in certain areas plays an important part. In our experience, it is becoming more evident that the firms themselves are recognising that well organised welfare conditions increase efficiency by improving time-keeping and the standard of health of the workers, and by creating an atmosphere of contentment and well-being. This would seem to be due more to the personal element in good welfare work than to purely mechanical organisation."

2. "Undoubtedly, during the last two years considerable progress has been made in every direction in the Midland area. A helpful sign is that the workers themselves are beginning to demand better accommodation, and employers are waking up to the fact that in order to secure the best type of labour they must provide this organisation. For instance, one firm, after opening a canteen, found it was much easier to obtain labour. In another case, where an employer was about to employ women for the first time on work which demanded some skill and intelligence, the women who applied for the work and whom he would willingly have engaged, refused to come when they ascertained what scanty provision was made for their comfort."

3. "One indication that good factory arrangements are now recognised as a necessary part of the employment of women is that in several cases firms about to take on women have invited a welfare officer to visit and discuss arrangements before engaging the women."

4. "During the year there would appear to have been very considerable progress both as to actual improvement of conditions and as to change in the point of view, so that the outlook is hopeful for further improvements."

5. "The progress noticed in factories in this area (Glasgow) is encouraging. We find that when factories have been visited and given the necessary stimulus, the management is in most cases very willing to take what steps are possible. In large factories this, of course, has been comparatively easy to obtain, as they are much in the public eye, but we have also noticed with satisfaction the great number of small places employing from 20 to 50 women where during the past two years conditions have been revolutionised. At the factories which are becoming well-known as having good working conditions, there are waiting lists which sometimes run into hundreds of applicants. The women workers, realising that good conditions are possible, are now looking for and expect a higher standard than they have ever had before."

This change of attitude, on which the welfare officers for boys also remarked, developed still further during the remaining months of the active existence of the Welfare and Health Section.

(c) Welfare Supervisors.

The functions of welfare supervisors in controlled establishments and national factories varied even more widely than did the interpretation of the term "welfare," as applied to industrial conditions. The position ranged from that of the promoted charge-hand in a small works, who combined technical supervision or production with some responsibility for the first-aid equipment, and perhaps the care of the messroom, to the "lady superintendent," an integral part of the factory's organisation, responsible to the directors or to the general manager, and recognised as the authority on all questions connected with woman labour. In between these two extremes there was every gradation.

The duties generally delegated to the supervisor included the following:

1. The selection and rejection of candidates for employment, or the preliminary sifting of such applicants before passing them on to the foreman or forewoman for engagement on technical grounds.

2. The supervision of the women's accommodation, including canteens messrooms, cloakrooms, etc., and the engagement of their staffs.
3. The general supervision of the discipline of the women, either personally or through forewomen or cloakroom matrons, on day shift or night shift.

4. The supply and upkeep of protective clothing.

5. The investigation of workers' complaints.

6. Inquiry into absenteeism and bad time-keeping.

7. Inquiry before dismissal of a worker.

8. Care for the workers' health, especially in regard to ventilation, lighting, heating and cleanliness of the shops, the lifting of heavy weights, and the effect of long hours of work.

9. The supervision of first aid treatment by the factory nurses, if there was no factory doctor, and the administration of first aid treatment if there was no nurse.

In addition, the supervisor or her assistants sometimes undertook the visiting of sick workers, or of lodgings for workers in the factory, and the administration of war savings schemes, of benevolent and sick funds and convalescent schemes founded in conjunction with the workers. She organised recreation (such as dinner-hour concerts and dances in the canteen and outdoor games), supervised the factory crèche where this existed, and dealt with difficulties of transit to and from the works. In some factories she was consulted on, or directed, the transfer of women employees and the methods by which new work should be taken up by them. In many places the welfare supervisor was given the additional duty of supervising the boys employed.

Welfare supervision as described by the Health of Munition Workers' Committee in December, 1915, and as outlined in the first circular on the subject issued by the Ministry in 1916, included most of these varied functions. The appointment of a welfare supervisor or lady superintendent was summed up in this circular as meaning in effect that "the manager of a factory says: 'I want to be satisfied that the women and girls I employ are working under good conditions as regards both themselves and the business, but I myself have no time to go into every detail. I therefore appoint a lady superintendent or a staff of superintendents and I expect them to act for me in trying to ensure a satisfactory state of things. I wish them as a rule to be guided by their own tact and commonsense but to come to me when any defect cannot otherwise be remedied.'"1

A year later, as the result of experience, the position of the supervisor as defined by the section was made more precise, and more insistence was laid, as in the work of the Welfare Section as a whole, on her care for the workers' health. "The duty of a welfare supervisor is to obtain and maintain a healthy staff of workers, and to help in maintaining satisfactory conditions of work." She should, it was stated, on these grounds undertake the selection of the staff (with reference, if possible, to the certifying surgeon or panel doctor), the supervision of working conditions, of the canteen (probably in consultation with the trained manager in charge), of the

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1 Circular M.M. 13.
ambulance, rest room and first aid apparatus, of cloakrooms and the supply of overalls. She should, finally, be in touch with "the relation of health to efficiency" by access to the wages books and the time office, and by keeping records of ambulance cases and accidents.¹

The welfare supervisors appointed in the first year of the section's work met with a good deal of comprehensible misunderstanding. Even when appointed from the official panel, their work was often ill-defined and their appointment was sometimes admittedly only the result of departmental pressure. There were difficulties with the manager or managers, often comprehensibly unwilling to delegate to a woman, normally inexperienced in factory life, powers of dealing with the staff. There was the possibility of opposition by foremen and forewomen, afraid of interference with their control of the workers from whom they were required to produce output. There was in some cases opposition from the workers, who distrusted the appearance of a new official. In the great majority of cases these difficulties disappeared in practice.

The success of the welfare supervisor's work depended largely on her own capacities, but also depended to a great extent on the position assigned to her by the management. It was chiefly owing to misconception of what welfare supervision should involve that failures occurred. Thus in a large shell works the management complained of the complete failure of "welfare" as represented by two nurses who had been installed to "look after the women" with ill-defined duties as to the division of control of the rapidly growing staff between themselves and the foremen. When, however, the general manager stated to the Department that he must dismiss his whole female staff in two days unless some improvement could be made in the resulting disorder, the Welfare Section promptly recommended a highly qualified superintendent, who was given a definite position on the administrative staff with an adequate number of assistants, and by the firm’s admission wholly justified her position and that of the welfare movement, in fact if not in name.² In many munitions works, and especially in the national factories,³ the functions of the welfare supervisor were early made definite. In all works, it is true, in which welfare supervision justified its existence a large portion of the supervision work remained perforce indefinite. Thus the receipt of workers' complaints, either on small details or on larger questions expressed by a deputation headed by a trade union secretary, might occupy a considerable amount of her time (to the advantage both of the firm and the worker in the removal of friction). Help in illness, etc., also opened an indefinite field of "human" relationships. After attempting to satisfy the workers' obvious and immediate needs, firms which had adopted welfare supervision tended to make some selection from the very wide field of possible activities. In some factories, especially in those in which dangerous work was performed, the health side of the work was

¹ Circular M.M. 13 (revised).
² Hist. Rec./R/1122. 4/15; C.E. 804/15.
³ Chapter VIII illustrates the position filled by lady superintendents in national factories.
emphasised. In others, the social side of welfare received most attention; in others again the industrial side, as represented by the engagement and control of labour. This last function was of special importance if the supervisor was to enter into businesslike relations with the women for whom she was responsible, and to diminish the change in personnel—the "factory wastage"—which was a standing difficulty in the maintenance of an efficient staff. Careful records were kept, in the national factories and in certain controlled establishments, of absenteeism among the women workers, as well as of their health, progress in the factory, etc., and bad time-keeping and unnecessary changes of work were checked by inquiry into their causes and by the removal of these as far as possible, while comfortable working conditions and a good "tone" in the workshop supplied an incentive to regular attendance.

The development of the functions of the welfare supervisor was due fundamentally, as has been said, to the need for entrusting the care for the human material in the workshop to some definite portion of the administrative staff of the factory.

The following account of her early work by the supervisor of a very large works is quoted as a typical illustration of this often disregarded fact. The writer explained that her experiences, which were typical of those of many others, might be taken as an instance of the impotence of welfare orders by themselves in securing "the spirit of welfare." When she began her work in 1916 in a controlled establishment engaged on T.N.T. work

"the provision for washing was good and adequate; each worker was supposed to have her own overall which was washed every week; the meal-room accommodation was also good, and milk and cocoa was provided in gallons and every regulation sent down was made an instruction by the management. The link that broke the chain was the executive one. One could hardly describe in official language the actual state of confusion, the abuse of every provision and privilege or the standard of behaviour, time-keeping or of work that prevailed. It did not follow that because milk was provided it was necessarily drunk, or that a comfortable meal

1 The problem of the "disappearing woman" was an acknowledged difficulty of factory management before the war, and, despite the leaving certificate regulations, it continued as a phenomenon among women munition workers. Thus in March, 1918, Captain M. Greenwood of the Welfare Section supplied the Hours of Labour Committee with the following estimate of the length of service of women munition workers employed in any one factory at a given time. The figures, based on an extensive inquiry into the extent of wastage of female labour in munitions factories, indicate the transient nature of the population. (M.M. 197.)

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>Number (percentage)</th>
<th>Length of Service</th>
<th>Number (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td>13.33</td>
<td>7 months</td>
<td>5.89</td>
</tr>
<tr>
<td>2 months</td>
<td>9.66</td>
<td>8</td>
<td>5.67</td>
</tr>
<tr>
<td>3</td>
<td>10.00</td>
<td>9</td>
<td>5.87</td>
</tr>
<tr>
<td>4</td>
<td>11.61</td>
<td>10</td>
<td>4.06</td>
</tr>
<tr>
<td>5</td>
<td>10.04</td>
<td>11</td>
<td>5.59</td>
</tr>
<tr>
<td>6</td>
<td>7.46</td>
<td>12</td>
<td>10.81</td>
</tr>
</tbody>
</table>
could be enjoyed because good accommodation was provided. At every break for a meal or change of shift the changing rooms were pandemonium, while each worker strove to get what she thought was a better overall or pair of gloves than her own. Hundreds of pairs of gloves and refills for respirators were used up every day, caps were lost by the dozen. Such supplies could be had for the asking, and yet we seemed to be making no headway against T.N.T. effects, nor any real headway with welfare.”

Gradually order was evolved out of this chaos. “It seemed clear that the changing rooms could be made the real strategic point—and my own experience convinces me that next to the Employment Department the organisation and supervision of the women’s quarters is all important; the psychological effect of properly maintained quarters on the woman worker is tremendous—so that the new supervisor became for the time a glorified cloakroom matron; the changing rooms, which were always very cramped and never boasted of separate lockers, at any rate assumed a businesslike appearance; definite places were allotted and no trespassing was allowed. At first the girls resented any change in the old come-and-go-as-you-please method. But the innovations were so acceptable to the foremen, owing to the time saved in starting work and the different spirit shown in starting, that they not only gave unqualified support but gradually asked for co-operation in various other matters of general discipline.

“In like manner the meal room was tackled and comfort and cheeriness began to replace the previous noise and confusion. It is our pride that here, too, there was no change either in numbers or in personnel of the staff—we merely made different use of existing provisions.”

Incidentally, bad time-keeping was cured. The welfare superintendent made or enforced a rule that no worker must begin work till she had had cocoa or milk; this was served out just before 6 a.m. in the meal-room (by the superintendent)—“so that in the end no factory had such a record for prompt starting in the morning; by 6.5. a.m. every girl was dressed and at work.

“I feel that it cannot be too strongly emphasised that welfare orders alone, invaluable as they are as tools, are nothing but tools. Not only are they powerless to secure real welfare; they tend to have a contrary effect.”

The comprehensive functions of welfare supervision required a corresponding range of capacity in the supervisor, and it was not easy to improvise a supply of suitable candidates at the outset of the work of the Welfare Section. An official panel was, however, formed in the section in March, 1916, and interviewing boards for candidates were held in London and the provinces by representatives of the

1 Hist. Rec./R/346/41.
Welfare Section, the Home Office and the Ministry of Labour. Applicants were classified, after severe sifting, according to the degree of responsibility for which their previous experience had fitted them. From this panel employers were supplied with the names of suitable candidates, and 550 appointments were thus made up to December, 1918. Owing to the uncertainty as to the meaning of welfare supervision when the Department began to press it upon employers in 1916, appointments were at first frequently made of wholly unqualified candidates, and the Department undertook to receive, classify and distribute applications, partly in order to save trouble to employers in following the advice of its officers, but also in order to set a standard of qualification.

Brief courses of training were arranged by the Department in the early months of 1916 for the first contingents of supervisors, who, however, started work almost wholly on the strength of their existing qualifications, among which experience in social work or in almost any form of administration was found to be valuable. Subsequently, courses of training, lasting from three to twelve months, and including some study of industrial law and history, of economic theory and industrial hygiene, together with some opportunity of gaining practical experience in problems of working-class life and factory conditions, were organised at the London School of Economics and at most of the provincial universities, in order to prepare students for this virtually new profession for women.

The welfare officers, when asked to report on the general position of supervisors in the factories in their districts, gave at the beginning of 1918 reports which may be summarised as follows:—

In about 50 per cent. of the cases known to them the welfare supervisors' work was concentrated chiefly on the "domestic" side of their elastic range of duties, on the care, that is, of canteens, cloakrooms, first aid, clothing, etc. Welfare work was, however, very much more effective in other works where some form of specialisation was permitted and where much more responsibility, especially with regard to employment, was placed in the hands of the supervisor, provided that the latter was competent for the work. For this reason the welfare officers urged that the standard of qualification should be raised. (More than half the supervisors in their districts at the time had not been appointed through the Department's panel.) Employers justified themselves for not appointing welfare supervisors as follows:—

1. "The numbers of women employed do not justify the expense.

2. "There are sufficient non-productive women already engaged.

3. "The employment of women is only temporary and therefore there is no need to make such appointments.

4. "The employment of women is no new feature, and there is no need to change.
5. "The management fear that the foremen will resent such an appointment because it is likely to diminish their authority.

6. "Our employees are quite happy, and a welfare supervisor would attempt too much and upset the factory.

7. "It is difficult to find the right type of woman with industrial experience and technical knowledge."^1

When, despite these objections, a supervisor was appointed, in the great majority of cases the results admittedly justified the decision. The Department received constant reports from employers as to the "change of tone" in their factory and the practical advantages gained by the welfare superintendent's work. In work, however, so ill-defined as that of a supervisor, generalisations as to good or bad results produced in a short time are particularly misleading. The powers of survival of the system of supervision are the best test of its efficacy.

Over 1,000 supervisors of varying grades were working in munition factories at the date of the Armistice. Allowing for the fact that their appointment was compulsory in T.N.T. factories and practically compulsory in national factories, probably some 700 had been appointed voluntarily by heads of firms or boards of management.

When large numbers of munition works were shut down, the welfare supervisors in these works were, of course, discharged, although in some cases they were asked to remain until the factories should have been reorganised and the female staff returned. Some intermediate returns were obtained in the following year as to their position. Out of 733 factories in which welfare supervisors had been appointed, 249 were definitely retaining their supervisors and 42 more were to be retained so long as women remained on the staff. From 165 of the factories all the women had been discharged. The following is a summary of the position in certain divisions:

<table>
<thead>
<tr>
<th>Factories with Supervisors retaining Supervisors.</th>
<th>Factories with Supervisors during the war.</th>
</tr>
</thead>
<tbody>
<tr>
<td>London and South Eastern</td>
<td>140</td>
</tr>
<tr>
<td>West Midlands</td>
<td>76</td>
</tr>
<tr>
<td>Yorkshire and East Midlands</td>
<td>196</td>
</tr>
<tr>
<td>North Western</td>
<td>100</td>
</tr>
</tbody>
</table>

It was stated at the same time that in a number of cases the supervisors' work was being extended beyond the essentially "domestic" duties referred to above, and that in the London area the possibility of employing women as works managers had been discussed with a number of firms.^2

Industrial conditions were still far from settled at the date of this return, and the office of the welfare supervisor, on which the Welfare and Health Section had placed so much insistence, may therefore be said to have proved its "survival value."

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^1Hist. Rec./R 346/133.

^2 The Month's Work, issued by the Ministry of Labour, May, 1919.
II. Welfare Work for Boys.

Welfare work for boys was organised by the Department on lines similar to those laid down for work among women and girls. The work was, however, carried out on a very small scale by the Welfare Section during the first year of its existence, and the period of its effective administration under the Ministry of Munitions only lasted for some twenty months. The problems inherited from pre-war conditions were to some extent similar in either branch of factory welfare work. A definite welfare policy was, however, on the whole adopted by firms less readily for boys than for women, because the employment of boys was by no means new in the factories producing munitions, whereas the novelty of much of the work performed by women was often held to justify special provision for their comfort.

(a) The Work of the Welfare Officer.

"The welfare officer," it has been said, owed his position to two causes. Employers complained that boys were unmanageable, and that output suffered through this lack of control. 'My boys,' said one employer, 'are the sweepings from Hell, and nothing can be done for them.' The general public complained that the war had made life very difficult for boys, that there were clear signs of widespread deterioration, and that the fault lay with the industrial conditions of the time." From this two-fold complaint were born boys' welfare work and the welfare officer. His duties, following on these complaints, were of three kinds. In the first place he was called on to visit controlled establishments and ascertain facts. Secondly, he was asked to draw conclusions from the facts ascertained. And finally, he was required to suggest remedies. With the development of the work developed also the scope of the investigation. The office welfare inquiry form, at first a single sheet with a few headings, grew into a four-paged and elaborate questionnaire, covering the same points of structure and equipment enumerated in the previous section, and also such special points as the training and educating of munition boys. The officer was forced to realise that, in dealing with the problem with which he was confronted, he must regard as alien to his examination nothing which affected the general well-being of the working boy. Occasionally even wider views were entertained of his duties, as when one employer advocated that the State should take over the management of all the boys in industry, and another employer, in urgent need of assistance, addressed a communication to a welfare officer on the subject of the welfare of boilers.

(b) The War and Boys' Work.

The staff of travelling welfare officers, which increased from two in March, 1917, to fourteen at the beginning of the next year, found the same wide range of working conditions for boy munition workers as that which existed among women. A number of the firms producing munitions had before the war prided themselves on the completeness

of their provision for the training, comfort, and recreation of their boy workers. In some cases these schemes were maintained and developed during the war without any stimulus from the Department. In others, however, the pressure of munition work inevitably caused the neglect of such schemes, while in the majority no system of training or special care for boy workers existed.

The position of boy munition workers was thus described in the welfare officers’ reports in 1918.1

The boys employed fell, as in normal times, into two divisions, apprentices (whether indentured or not) and unskilled workers.

“As a rule,” it was reported, “some attention is given by employers to the first class, though their conditions have changed for the worse during the war. The speeding up of output and the tendency to put apprentices to production work have not been favourable to training. There has been a marked decrease in their attendance at Continuation Schools, and not infrequently facilities for attendance have been withdrawn. The high earnings of the unskilled boys have led to a frequent breaking of apprenticeship. The call for military service brings the apprenticeship to a premature termination at the age of 18. The national loss entailed in the consequent diminished industrial efficiency of the artisan of to-morrow has not received the attention it merits, and the problem involved is as yet unsolved. Few new schemes of apprenticeship have been initiated since the war. As regards the unskilled boy, little attention is usually given to his training. He is considered a bird of passage, here to-day and gone to-morrow, and consequently of small permanent importance in the workshop.”

The wages of boys taken as a whole had doubled since the war.

“The highest wage recorded as having been earned during any one week is £8. But anything approaching this figure is very exceptional. Cases of £3 to £4 a week are not uncommon. These large sums are obtained when employed on piece-work, and for this work a boy occasionally exhibits a remarkable quickness and gains accordingly. But the fact that such high wages have been earned becomes known and serves as an attraction which draws boys to the munition factory.”

One welfare officer reporting on this question wrote:—

“The persistence with which the boys took up the trail to the great machine shops and to the great national factories or to anywhere where the processes were repetitive and the contracts ran into millions, can be likened almost to the rush to Klondyke. In their feverish eagerness boys spent their time wandering from shop to shop, from works to works, making short stays only, in search of the El Dorado. Indentures were thrown to the winds, places where useful trades could be learned were left behind, entreaties of considerate employers were rudely rejected, and parents treated with indifference.”

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1 Hist. Rec./R/346/39; L.R. 168.
In spite, however, of common reports, the ordinary earnings did not reach any very surprising figures. A careful investigation in the Birmingham district among 250 boys aged 13 to 17 showed that in the spring of 1918 the average weekly earnings were £1 8s. 11d.¹

Hours of work were, as a rule, the maximum allowed under the Factory Act. There had been a diminution of the long hours of overtime common in the early stages of the war, but boys were so frequently employed as helpers to men, that they tended to follow men's hours, so far as was legally possible, instead of sharing in the shorter day commonly worked by women in 1918.²

In spite of the recent increase in the number of canteens, such provision, or even that of a messroom, was not found in the majority of cases.

"In a group of firms connected with the iron and steel trades, a recent inquiry gave the following results:—108 firms employing 8,027 boys and 63,572 men had neither canteen nor messroom; 59 firms employing 5,756 boys and 37,834 men had canteens or messrooms; 19 firms employing 2,685 boys and 18,519 men were providing such places, as a rule at the suggestion of the section."

Opportunities for recreation had greatly diminished, since the majority of those responsible for the management of boys' clubs had joined the army.

"The effect," it was said, "of the decrease in the means of recreation, added to the dulness of repetition work, is seen in the large increase of gambling among boys both within and without the factory; employers have repeatedly called attention to the fact. One manager employing 100 boys informed the welfare officer that he had destroyed 34 packs of cards in a single week. A certain amount of gambling is natural among boys; but gambling in excess, as now found, is an indication of the presence of an unhealthy monotony in their lives."

From these and very many other reports it was clear that boy life and labour had suffered greatly from the war. Therewith output had also suffered. An outstanding remedy offered to employers by the Department was the recommendation of the appointment of a welfare supervisor, as a "specialist" who should secure the individual care and consideration essential to the young worker.

(c) Welfare Supervision.

The Welfare Section formed a panel of men qualified for posts as welfare supervisors on the same lines as that formed for women.

¹ In two of the hostels for boys under 18 employed at Woolwich Arsenal, where wage rates as a whole were high, the earnings in April, 1917, averaged as follows:—Hostel A (200 boys) £1 12s.; Hostel B (86 boys) £1 8s. 6d. (Hist. Rec. H.346 3).
² See Chapter VI.
There was a comprehensible difficulty in securing the right type of candidate for such work during the war, and those appointed had normally to take up work without any formal training.

The duties of a boys' supervisor, as suggested by the Department in its official memorandum on the subject, included the following:—

1. The interviewing of boys (and their parents) prior to their engagement, and their special supervision during the first week's work.
2. Questions of discipline, including time-keeping and complaints by and of the boys.
3. Arrangements for continued education.
4. Care for health, including some supervision of first-aid treatment and of canteens.
5. The organisation of savings schemes.
6. The organisation of recreation.

"The supervisor will be responsible for organising outdoor games, and for the management of a recreation room, if such exists. He will consider the question of forming a cadet corps or scout troop."

"The essence of the scheme," it was said, "lies in placing on some member of the staff the responsibility for the general well-being of the boys." Such work might be performed by a whole-time officer in a large firm; by an officer specially appointed, but with other duties beside the supervision of boys; or by an officer shared, as was not infrequently the case, by two or more firms. It was essential that the supervisor should co-operate with the local education authority, with the Juvenile Employment Committee, where this was in active operation, with club workers, and other outside agencies connected with boys.1

Accounts of their work given by the supervisors thus appointed showed the wide interpretation placed upon the suggested schedule of duties, and the essentially human problems involved therein.2

1 Circular M.M. 13 B.
2 The following is a specimen of a very complete scheme of welfare for boys, reported to the Department in October, 1918:—
"The James Cycle Works, Birmingham, employing 160 boys, have initiated a welfare scheme the chief features of which are the establishment of a comprehensive athletic and recreation organisation, and co-operation with the local education authority for "continued" education. In connection with the former, the foremen and men in the works have consented to take charge of particular branches of recreation, which includes gymnastics, physical drill, boxing, football, swimming, cricket, photography, gardening, and running. The messroom is regularly used as a gymnasium, and on an evening in alternate weeks a popular lecture is given to the boys by members of the staff and others. Eighty of the boys have joined the special evening classes organised for them at the local technical school, and the welfare supervisor has made arrangements to receive from the school records of their attendance and progress. The management have specially notified the welfare supervisor that he is to pay particular attention to the health and development of the boys and provide where necessary free tonics and body building foods, such as cod-liver oil and emulsion."
(d) Progress of the movement.

The boys' welfare movement made marked progress during 1918, and the number of local welfare officers for boys was increased to twenty in the course of the year, in order to cope with the work.

The number of welfare supervisors with firms known to the Department rose from 110 in January, 1918, to 275 on 1st December, 1918, when the Boys' Welfare Section was transferred from the Ministry of Munitions to the new Training Department of the Ministry of Labour.¹ The supply of potential supervisors on the official panel kept pace with the increased demand to some extent; but the demands of the war still made it difficult to secure the right type of man in sufficient numbers for the work.² This was an inevitable difficulty; but with the demobilisation of the army it became easier to secure the right type of candidate.

The number of firms with which the welfare officers of the section were in touch had risen to about 2,000 by December, 1918, and an average of from 50 to 60 visits were paid weekly to firms by these officers. The Birmingham Central Care Committee, in its annual report of 1918 to the City Education Committee, congratulated its citizens in that probably 10,000 local boys were now under definite welfare supervision, as compared with probably 500 a little over a year ago.

Apart from these increased appointments, a marked growth of interest in and comprehension of the aims of the section was reported from different quarters of England by the travelling officers. "The old attitude towards such work, which may be described as one of benevolent contempt, is much less met with than formerly, and there is not wanting evidence that welfare activity in one quarter of the town stimulates similar activity in another, and even produces here and there a sense of shame that arrangements in the works have so utterly ignored the human element and the possible effect of factory environment on the development of health and character," reported the Birmingham welfare officer in September, 1918.³

Welfare officers at the beginning of the year had repeatedly found almost complete ignorance among busy employers as to the number of their boy workers and the conditions under which they worked, but the results of propaganda were becoming visible by the end of the year.

¹ Hist. Rec./R/346/39. In December, 1917, out of 900 controlled establishments with 30 or more boy workers, nearly 20 per cent. of the firms (employing 40 per cent. of the boys in the whole number of factories) had appointed welfare supervisors or made some equivalent provision for welfare.
² Thus, when in June, 1918, advertisements were inserted in the Press asking for men with experience of working boys, and especially for discharged officers who had acted as scoutmasters or had experience in handling cadet corps, although 500 replies were received, comparatively few of the candidates proved suitable.
³ L.R.W. 168.
“The revelation to employers of the actual number of boys they employ,” reported a travelling officer, “has come as a result of the officer’s visit, and in more than one case as a dramatic surprise. One employer who guessed the number as 30 was startled to learn that there were 180; another, who thought he had only about 20, immediately on getting the information that he employed 70 walked with the welfare officer round the works to find them; whilst a third, who guessed that he employed 70, exclaimed on getting the information that there were 500 in the works, ‘Where do they all hide?’ In this way the management has in numerous cases, for the first time, been brought face to face with their responsibilities, and turned from an attitude of apparent unconcern to one of genuine interest.” Other firms came to realise the need of welfare supervision not so much from a heightened sense of responsibility for “the boy colony unorganised and ignored” in their works, as from sheer difficulties in management. The question of maintaining discipline among boys—especially those under 16, whom it was undesirable to bring before a munitions tribunal—was becoming increasingly difficult as the summer of 1918 advanced, as older men were called up, and as fresh relays of boys became accustomed to the high wages of munition work and the resulting independence. The chief investigation officers were the recipients of many such complaints, and the suggestion of the appointment of a welfare supervisor was sometimes favourably received as a cure for disorder.\(^1\)

Like the rest of the welfare policy of the Ministry, the methods by which the Department endeavoured to convince employers of the need for special provision for their boy workers were largely educational, and the cumulative effects of this education, done unobtrusively and by means of much spade work, were becoming increasingly visible by the date of the Armistice.\(^2\)

The advance of the welfare movement for boys was also due to its coincidence with other movements which, despite war pressure, were developing in 1918 for the benefit of boys and girls. The losses of the war were bringing home to the country the need for utilising its human material, and, at the same time, the shorter hours movement

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\(^1\) Not all supervisors were able to evolve order out of disorder, but frequent reports reached the section of the good effects produced by their appointment in firms whose discipline had become weak. Thus the head of a large alkali works reported in June, 1918, that before the supervisor (a discharged officer) came the boys were “a lot of little hooligans,” whereas since he came the whole position was changed; nearly all the boys were members of a cadet corps, turning up “splendidly and keenly” for parades three times a week after work hours, while arrangements had been made both for a holiday camp for them and for opportunities for them to attend continuation school classes. C.E. 2659/16.

\(^2\) In May, 1918, an unofficial Boys’ Welfare Association was inaugurated, which in November, 1918, began to issue a monthly journal for employers, welfare superintendents and others. In the course of the year a number of local associations and a National Association of Welfare Supervisors were formed, with the approval and co-operation of officers of the Department. The vitality shown by these extra-departmental organisations during the following year may fairly be quoted as a testimony to the efficacy of the Department’s propaganda work among its controlled establishments.
made it more possible to put this into effect than it had been earlier in the war. Two results of this were the appearance during the year of a series of civic schemes for recreation for all the working-class members of the community in a number of industrial towns, and the establishment of Juvenile Organisations Committees under the auspices of the Home Office, which included the provision of recreation for boys and girls among their general objects of co-ordinating in each locality all "interests" concerned with the young. In these schemes the Ministry of Munitions took an active part, which is described in the following chapter.

In addition to these combined recreation schemes, there was a very general growth during the year of similar provision among individual firms, especially the larger firms engaged on munitions work.\(^1\) Most large firms had their sports clubs, reported the welfare travelling officers in 1918, and increased provision was made for cricket, football, and swimming, in addition to the organisation of works orchestras, etc., and the provision of allotments. Both large and small firms had tended to omit provision in such schemes for the younger boys employed by them, and it was among those under 16 especially that the welfare supervisors in this year reported experiments in the organisation of "works troops" of boy scouts, in week-end and summer holiday camps,\(^2\) in addition to schemes for furthering their education in its widest sense.

In questions concerning the training of boy workers, the welfare movement again coincided with a revulsion of interest outside. The strain of the first two or three years of the war had, as has been said, made attendance at continuation classes even more difficult for the working boy than it had been under pre-war conditions, and numbers of employers who had previously urged their young employees to attend such classes had, by their own admission, ceased to do this except, to some extent only, in the case of apprentices. Boys' supervisors were, however, able, in an increasing number of cases, to arrange, with their firm's approval, schemes for the encouragement of attendance at evening classes; while the Education Act of 1918 and the debates leading up to it stimulated interest even among busy employers in the problem of continued education, and led to the organisation of works schools by various large firms—\(e.g.,\) in the Birmingham and Manchester districts. This movement had not gone very far by the date of the section's transference from the Ministry of Munitions. The Act, however, clearly opened out a very wide field for work by welfare supervisors, in conjunction with local authorities (on the lines indicated previously by the Department), in care equally for the health, recreation, and formal education of boy workers. The need for such care was even more obvious among the boys engaged on unskilled or semi-skilled work than among apprentices, necessarily a small minority of those engaged on munitions work.

\(^1\) L.R.W. 168.

\(^2\) Thus it was reported in 1917 that a large Scotch firm had recently erected a hut on the banks of Loch Lomond where the boys in rotation spent their week-ends and special attention was given to the study of Natural History. (L.R.W. 168.)
With regard to apprentices, the work of the section again fell in with an industrial movement taking place outside. Apprenticeship systems, where such existed, had been inevitably shaken during the war. Senior apprentices had been upgraded to take men’s work or to supervise women’s specialised work, while younger apprentices had been frequently put on to repetition jobs, normally with increased pay. The loss of training was an obvious penalty paid by the boy worker (often to his own satisfaction) for the advantages to the country of repetition work, and was hardly avoidable, although the dilution officers of the Department from the summer of 1917 were instructed to arrange that boys should be put upon the less “dead-end” work when a choice was available, and to persuade employers, as far as possible, to keep purely automatic work for women, whose industrial future was unimportant. Special co-operation was arranged between the Ministry’s dilution and welfare officers for this purpose.\(^1\)

By the later months of 1917, however, employers began to work out fresh schemes, and to revive old schemes, for the better organisation of apprenticeship. Thus in the autumn of 1917 the Huddersfield Engineering Employers’ Association produced an elaborate joint scheme for the progressive training, practical and theoretical, of their apprentices, with a scale of rewards for good time-keeping and general progress. Early in 1918 the Paisley Engineering Employers inaugurated a rather similar scheme. About the same time the Engineering Training Organisation, an association founded in October, 1917, and representing engineering and educational bodies throughout the country, began to develop a national scheme for the improvement of engineering training, which laid great stress, \textit{inter alia}, on the need for a revival of apprenticeship. A system of co-operation was agreed upon between this organisation and the Welfare and Health Section of the Ministry of Munitions, which undertook “to supply information to its officers respecting the work and objects of the Engineering Training Organisation, to employ the term of ‘apprentice-master’ instead of welfare supervisor in relation to the supervision of the broader education of boys in the engineering industry, and to instruct their officers to advocate the appointment of apprentice-masters in relation to engineering.”\(^2\)

The preparation of schemes for dealing with the broken apprenticeships of young soldiers called to the Colours was transferred from the Ministry of Pensions to the Ministry of Labour in December, 1918. The protracted negotiations with employers and workmen that led up to the framing of a scheme for each industry, suggested in a number of towns, where systems of apprenticeship were lapsing or were out of date, fresh possibilities of co-operative schemes for training in the future, while, at the same time, Juvenile Advisory and Juvenile Employment Committees were stimulated to local inquiries as to the existing means for boys or girls to enter trades in their own neighbourhood. The Welfare Section was able to help this growth of interest locally by active co-operation (\textit{e.g.,} in Birmingham) and

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1 Minutes of Welfare and Health Committee (8 August, 1917).
centrally by the issue in January, 1918, of a Handbook for Welfare Supervisors and Apprentice-Masters, giving, beside much general welfare information, definite suggestions as to model indentures and detailed systems of "works" training for apprentices.

The position of welfare work for boys was well established by the date of the Armistice, even if it had not covered directly a very large proportion of the 250,000 boys in controlled establishments, and it suffered little in the process of demobilisation. Very few welfare supervisors were discharged along with the boys for whom they were responsible. Where discharges of boys were numerous, supervisors and welfare officers were able to assist, and in some cases to take the initiative, in the organisation of unemployment centres for their training and recreation.

The Welfare and Health Section for boys promptly became, as has been said, a part of the Training Department of the Ministry of Labour. As such it had growing possibilities of constructive work, since its sphere was no longer confined to workers in the munitions trades; and the organisation by that Department of training schemes for demobilised soldiers whose apprenticeship had been interrupted brought its local officers into touch with problems of boys' work in many thousands of firms. The brief period during which the Ministry of Munitions pushed forward the development of welfare work among factory lads had demonstrated that such work was "no longer philanthropy, but good business."

### III. Welfare Work among Men.

No systematic effort was made by the Department to deal with questions of "welfare" among men, although complaints as to accommodation were dealt with when referred to the section by men munition workers. Formal complaints were, however, seldom made, either by individuals or by labour organisations. Those of the former when made at all, referred to details such as canteen management, or the heating of workshops (a point which caused various small strikes during the fuel shortage of 1917-18). Demands of the latter, formulated at set hearings before the Committee on Production and other courts, almost invariably dealt with rates of wages and standards of living. In the exceptional cases (such as the negotiations with chemical employers in 1917) when reference was made to hard or unhealthy working conditions, such conditions were discussed by the men from the point of view of higher compensatory wages rather than of practical schemes for their improvement. No definite demand appeared to exist among workmen during the war for a general improvement of working conditions. It was felt by the Department that any attempt to take this question up actively would be liable to be misunderstood by the men themselves, and private conversations with prominent trade unionists confirmed this view. On the other hand, the question was not allowed to drop out of sight, and welfare officers were instructed to bear the matter in mind and, as occasion offered, to discuss it informally with employers, giving special attention to the possibilities of development by means of Works Councils.
It seemed probable, however, that welfare work among men would tend to develop spontaneously out of welfare work among boys, and, in particular, out of the appointment of welfare supervisors for boys. "In a not inconsiderable number of cases" reported the welfare officers, "the supervisor, usually on the request of the men, finds himself called on to deal with matters affecting their welfare. He naturally sees much of the men, and, if of the right type, soon establishes friendly relations with them. If a men's recreation club is started, he finds himself asked to undertake the organisation. If anything in the nature of a Men's Committee or Works Council is started, he has sometimes been thought the right man to act as secretary. Often he is in charge of the first aid equipment, and deals with men as well as with boys. Men tend to come and consult him in their various difficulties." One welfare supervisor in Scotland reported that in the course of a few weeks over two hundred men had come to consult him on various questions.¹ Men munition workers shared in the advantages of the first aid and messroom accommodation, which was sometimes provided, in the first instance, on the introduction of women to their factories, and it was frequently reported that their "standard of comfort" had been raised thereby. The administration of welfare provision for their benefit obviously involved different problems from those surrounding boys and girls and unorganised workers. These are discussed in the next section.

IV. Welfare and Organised Labour.

(a) Trade Union Criticisms.

The welfare movement as advertised during the war was watched with considerable suspicion by a section of organised labour, as a form of possibly undesired philanthropy on the part of employers. Opposition to improved accommodation could not endure long, especially when (e.g., in canteens) the workers were given a share in its control. It was round the position of the welfare supervisor, for boys as well as for women, that trade union criticism centred. It was said that the supervisor was a hybrid official, in the pay of the employer in order to increase efficiency and secure more output, but supposed to represent the interests of the workers. The welfare of the workers, it was said, should be the concern of the firm as a whole, and should not be "delegated to a paid official of anomalous position and divided interests."² The mere title, it was suggested, had a tinge of "hypocrisy." And apart from this, successful welfare work supervision was "a form of separatism," emphasising the relation of the firm to the individual worker, and weakening the sense of collective responsibility, in which the woman worker was being laboriously trained by trade union officials.³ Thus, even after two

² Women's Trade Union League Review, April, 1917.
³ "This need not be so; but so far, the theory of the Ministry of Munitions seems to have gone little beyond this ideal of individualism and personal kindliness. In one case, the kindliness is accentuated (by a "good" supervisor): in another, the system is frankly one of intolerable personal meddling." (Highway, issued by the Workers' Education Association, June, 1917.)
and a half years' experience of welfare work, a motion was raised at the biennial conference of the National Federation of Women Workers in August, 1918, for the abolition of official welfare organisation. The personnel of the welfare workers and the ambiguity of their status as compared with that of the Factory Inspectors were criticised by the representatives of this women's trade union (which, however, included only a small proportion of the women in munition works). In the Home Office officials "the workers recognised the impartial representatives of the community; in the existing welfare workers, merely a reflection of the wishes and disposition of the employer."\(^1\)

There was some justification for these criticisms, both in theory and in practice, although they were increased by misunderstanding, and by the haste with which welfare work developed. The theory that the employer must not impose as from above improvements in working conditions without asking the co-operation of the workers was probably sound on educational grounds. It was impossible to wait for their co-operation in 1916, but means for securing it in future are discussed below. The criticism of the welfare worker as a hybrid official was the result of misconceptions, due, in part, to the early propaganda for welfare work. Insistence was increasingly laid by the Ministry of Munitions on the need for the welfare worker to become a definite part of the managerial staff, and the suggested change of title to "employment superintendent" or "establishment officer" avoided the possible taint of philanthropy or patronage attached to the word welfare.

In practice, while it is true that some of the hastily appointed supervisors showed, in dealings with individual girls and boys, an absence of that "tact" which was insisted on as a primary requisite for their difficult position, or from sheer ignorance of industrial organisation opposed trade union propaganda in the factory, these were only exceptional cases. In few instances was there any clash between the trade union officials and the supervisor, whose real functions were, as may be seen by their analysis in the previous sections, quite distinct. The normal shop steward had, for example, no desire to concern him or herself with the training of boys and women to a reasonable use of the welfare accommodation provided for them, which was one of the supervisor's most useful functions, and a modus vivendi could be, and was, readily arranged between the supervisor and the trade union official as to dealing with workers' complaints. Further, it must be remembered that trade unions had hitherto neglected the problems of boy labour except in connection with apprenticeship, and that the very large majority of women munition workers were unorganised. The welfare supervisor and her staff indeed helped to train a shifting population of workers—often young and irresponsible workers, to a great extent new to collective industry—in a sense of esprit de corps and good order, which, often for the first time, provided a possible basis for sound trade unionism.

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\(^1\) Woman Worker, October, 1918.
In April, 1918, a memorandum on "Welfare Supervision" (for men as well as women, boys and girls) was issued by the Woolwich Trades and Labour Council and Labour Party. Its conclusion, after full consideration of the different points of welfare, may be quoted, in face of the criticisms of the movement by witnesses before the Commissions on Industrial Unrest of the previous summer. A Welfare Department, and even a system of welfare workers, might, it was held, prove beneficial, provided the functions of trade unions (e.g., with regard to wages) were not touched thereby. Any system of welfare supervision that should "win the full confidence and support of the workers" must, however, observe the following conditions:

1. Welfare supervision must aim primarily at promoting the welfare of the workers and not at increasing the workers' output.

2. Welfare schemes and supervisors must be under a democratic system of control, in which the workers shall have equal participation with the employers.

3. The established field of operations of trade unions and their officials must be clearly and loyally recognised by welfare schemes and supervisors.

4. Welfare supervisors should be drawn, as far as possible, from among the workers.

5. Welfare supervisors should not be appointed without preliminary training or experience, such training to include a knowledge of trade union aims and methods.

6. If government control of welfare supervision is maintained after the war, such control must be transferred from the Ministry of Munitions to the Ministry of Labour.

7. As welfare supervision would probably become a permanent and extending element of the industrial system, there should be held in each industrial centre conferences convened by the local Trades Council or Labour Party, for the purpose of considering the aims, scope, and methods of welfare supervision; and such conferences should be followed by a joint conference of the Trades Union Congress and the National Labour Party.

All these conditions were being approached in different forms of welfare work in 1918 and 1919.

(b) Welfare and Works Committees.

In the multiplying works committees among employees of controlled establishments, or, where these had not yet been established, in special ad hoc committees for the management of games or benevolent funds, experiments were being made in the "democratising" of welfare, which was asked for in this Labour report and others

\[1\] L.R.W. 682/17.
like it. No general statement is possible as to the relation of work-
shop committees and welfare (or the control of working conditions) in 
the later stages of the war. The following arrangements in certain 
very differently placed firms illustrate the trend of possible development.

(1) In a National Projectile Factory (which had the distinction 
of working out, under conditions new to the engineering world, an 
apprenticeship scheme for its boy workers) a welfare committee 
existed from April, 1916. This committee, consisting of twelve 
representatives elected by the workers and one representative, also 
elected by the workers, of the management, administered a fund formed 
by weekly deductions at the rate of 1d. to 3d. in the £ from all wages. 
This fund was spent in subscriptions to various war funds and to 
hospitals and convalescent homes at which the workers might be 
treated, and in relief of distress due to illness among the workers. 
In the autumn of 1918 hospital subscriptions reached the rate of 
£600 a year, and grants, after investigation by members of the com-
mittee, to cases of distress through illness among the operatives 
averaged £25 a week. The funds further supplied newspapers and 
music for the canteen and purchased a piano for dinner-hour concerts.¹

(2) The following is an example of an advisory welfare committee 
being superimposed on a particularly successful welfare organisation 
in a private firm:—“All welfare work in the firm is undertaken by 
the employment department, which consists of an employment 
manager, a lady employment manager, three assistants, and a clerical 
staff. The department is an integral part of the works, and is not 
regarded as an outside ameliorative agency.” All labour was engaged 
by the department, the workers’ progress was recorded there, and all 
questions of wages, hours of work, and working conditions were 
investigated there; while the control of the dining rooms, cloak-
rooms, etc., the dismissal of workers, the consideration of complaints, 
was in the hands of the department, which acted as a go-between for 
the workers and management, removing causes of friction in the 
works. An elected welfare committee had (in 1917) the right of suggestions about the general amenities of the place, the management of 
the dining-rooms, cloakrooms, and first aid, the ventilation, heating, 
etc. It had, however, no executive power.²

(3) The works committee of a Sheffield foundry developed the 
following welfare activities. This committee was reconstituted 
in March, 1918, “on a trade union basis.” There were no repre-
sentatives of the management, but the social secretary or welfare 
supervisor was unanimously invited “to become chairman, subse-
quently secretary.” It dealt, sometimes in conference with the 
directors, with the following matters during the summer:—A proposal 
of the directors to keep a week’s wages in hand (agreed to); schemes 
for improving time-keeping and the enforcement of works discipline, 
referred to its members by the management; arrangements for the 
summer holidays and for shortening the working day; the provision 
of allotments; the administration of war relief. A “junior works

¹ Hist. Rec./R/346/28. ² C.E. 808/15 II.
council" was established, consisting of boy representatives from each department. Week-end camps were held under the care of the social secretary for groups of the firm's employees and for their children in a bungalow on the neighbouring moors.

(4) A striking form of developing responsibility among the younger workers appeared in a "Boys' Parliament," organised by a supervisor at the beginning of 1918 among the apprentices of Messrs. J. S. White & Co., shipbuilders, Cowes. This "Parliament," founded on strictly constitutional lines, was empowered to discuss all matters of welfare among the lads employed, and early distinguished itself by drawing up and sending in to the directors of the firm a scheme for the better training of the fitter apprentices.1

(5) Various interesting experiments in delegating the control of boys' welfare to the men working in the factory were reported during the year 1918. Thus a Birmingham firm making pens in peace time invited the men's works committee to undertake the welfare supervision of the boys. "The Chairman of the Committee," wrote the local boys' welfare officer in May, "is very sympathetic to the proposal and a suggested scheme is at present being worked out by the committee. The manager is a keen social student, and his relations with the works committee are very friendly. He has interested the members in the study of economics. He also conducts a works class for boys in the firm's time; and for boys under 15 attendance at this class is compulsory."2

These are disconnected examples of the development of control by the workers of working conditions and amenities in munition factories during the war. They are typical of a process which had very wide possibilities of development.

The following were among the subjects suggested by the Ministry of Labour in January, 1919, for the consideration of the Works Committees established in connection with Joint Industrial Councils3; the distribution of working hours; breaks in spells of work, and systems of time-recording; the provision of meals, drinking water, safety appliances, heating and sanitation; discipline and conduct in the works; the engagement of labour; the training of young workers; entertainments and sports, etc.

These suggestions sum up almost the whole of the activities undertaken by a welfare supervisor according to the recommendations laid down by the Ministry of Munitions. The services of an executive officer were, however, obviously required if these subjects were to be dealt with effectively, at least until such an organisation as was thus outlined for the joint control of industrial conditions had been perfected, and until the workers' own standard of such conditions had risen to a very much higher level than it had normally reached before the war.

1 The scheme is described at length in the Handbook for Welfare Supervisors and Apprentice-Masters (1919).
2 L.R.W. 168.
3 Ministry of Labour, Industrial Reports, No. 4; Industrial Councils.
CHAPTER III.

WELFARE OUTSIDE THE FACTORY.


(a) The Need for Special Provision.

In January, 1917, the Health of Munition Workers' Committee issued a report on the "Health and Welfare of Munition Workers outside the Factory," urging strongly the necessity of provision for the needs of the workers, especially the women and girls, who had moved from their own homes in order to take up work on munitions. Although their welfare was already to some extent under the care of local authorities, of voluntary agencies, and of semi-official organisations such as the Local Advisory Committees for Women's War Employment set up in connection with the Employment Exchanges, yet it was represented that "the time had now come to supplement and reinforce these by a larger degree of state action than had hitherto been deemed necessary." On the State, which had organised the transference of labour, lay the responsibility "not only for suitably housing these transplanted workers, but also for securing the safeguards needful for their health and morals, the maintenance of which is essential to the nation." Any work for these ends should take full account of existing organisations, official and voluntary. "The aim should be not to supplant the work of these various bodies, but by the appointment of special officers and by other means to supplement and co-ordinate." On this basis the Health of Munition Workers Committee offered a number of very practical suggestions about the provision of lodgings or hostels for imported workers, assistance to them in travelling, arrangements for their care in sickness, the widespread development of means of recreation for their leisure, while incidentally it was urged that, for the preservation of public order and for preventive work, women police should be appointed, and that the Central Control Board should be asked to consider and take action in local drink questions.

(b) Organisation by the Department.

It had been realised in the Welfare Section from its establishment a year earlier that care for workers outside the factory was under war conditions an important aspect of industrial welfare work. To a certain extent welfare supervisors, as has been explained, supplemented their multifarious duties in the factory by care for the home

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1 This report (Memorandum No. 17) was not published. For an account of the general principles of extra-mural welfare see Section XIX. of the Final Report of the Health of Munition Workers Committee (1918).
conditions or recreation of the women or boys or girls for whom they were responsible. But there were limits to this expansion of their duties, both on account of the expenditure of time involved and the suspicion felt by some workers, in theory if not in practice, of intrusion on behalf of the employer into their leisure hours. Apart from such isolated efforts, it had not been possible for the Department to effect much in this direction beyond arranging for grants to certain crèches and to a very limited number of clubs and of works recreation schemes, and initiating the inspection of munition workers’ hostels. The problem, however, of the transported worker, which was unimportant so far as women were concerned at the beginning of 1916, was growing throughout the year as the demands of the new national and other munitions factories became effective. In March, 1917, the Employment Exchanges reported that the numbers of women being transferred monthly through their agency to work in other districts averaged 4,000 to 5,000. They were drawn from very many different sources. Thus in the previous month 5,000 women had been imported into eight large munition centres from 200 different Exchange areas. To one factory in the west midlands 772 women were imported from districts as far apart as Aberdeen and Penzance. In addition, very considerable numbers of girls were, by this date, presenting themselves in the busy munitions districts, trusting to fortune or their friends to find them a job, without any application to the Employment Exchanges. In April, 1917, accordingly, when the work of the Welfare Section was reconstituted, a special subsection was created to look after the welfare of munition workers outside factories. Its activities covered almost exactly those outlined in the Health of Munition Workers Committee’s report, although others were later added. At the beginning of January, 1918, the staff administering this branch of work numbered six at headquarters, besides 18 paid and three voluntary liaison officers, stationed in different industrial areas—normally, but not always the same (since they were technically on the staff of the chief investigation officer of each district), as those of the intra-mural welfare officers whose work has already been described. In addition to these, a small staff inspected hostels for munition workers, while the extra-mural welfare officers were allowed to employ a fluctuating number of temporary lodgings investigators.

From the establishment of this branch of the section’s work special emphasis was laid on the fact that it existed to assist and not to supersede local effort. The extra-mural welfare officers were directed to co-operate with the Local Advisory Committees for Women’s War Employment, where such existed, and with the officers of the Employment Exchanges, and to get into touch with the philanthropic and social agencies in the centre to which they were attached, to find out how far, if at all, their work required to be supplemented, and to recommend the means by which such supplementary work should be performed if it were required. Beyond this they were required to

1 In 1914 the number of women who obtained employment in “other districts” through the Employment Exchanges was 32,988; in 1915, it was 53,096; in 1916 it was 160,000 (Labour Gazette, March, 1917).
give help with regard to lodgings; where necessary to establish and control a systematic investigation and supervision of lodgings, paid investigators being appointed by the Ministry to work under their directions; to investigate and report upon any welfare schemes, such as those described below, for which financial assistance was requested, and to keep the Welfare Section informed of the progress and development of such schemes. They also assisted in investigations required by the section, such as the condition of housing in their area, the holiday care of schoolchildren whose mothers were in munition works\(^1\), or the provision required for maternity and other sick cases\(^2\); and assisted, when necessary, in the organisation of convalescent homes, transit, recreation schemes, etc., to meet these needs.

Since the extra-mural welfare officers were installed in order to fill gaps, in so far as munition workers were concerned, in the network of official and unofficial agencies for improving social conditions, it was inevitable that they should become involved in a large number of directions. Thus an officer stationed in a country town whose existing resources had been heavily taxed by the opening, in the neighbourhood, of two large munitions factories, the employees of which had added 8,000 to the pre-war population of 36,000, was engaged in the course of a year with the following series of activities:—The establishment of “study circles” for social workers; the proposed formation of a local guild of help; the establishment of a convalescent home for munition workers; the provision of evening play centres for their children; the care for workers after a great explosion in the principal local factory; the opening of a maternity home and crèche; an inquiry into local housing and food conditions; the supervision of “lodgings investigators”; the organisation of recreation out of factory hours.

The welfare officers in general, as in this case, were on ground already partly covered by numerous local organisations. The efficacy of these, however, and their power of adaptation to the new demands upon them varied very greatly in different localities, and the work of the officers sent by the Welfare Section to their areas varied accordingly.\(^3\)

“One officer,” it was said early in 1918,\(^4\) “has been invited by the local Medical Officer of Health and Health Visitors to address meetings on the care of infants; another is assisting in the formation of a miners’ orchestra; another has been successful in arousing local

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\(^1\) L.R. 2258/4.
\(^2\) Hist. Rec./R/346/129.
\(^3\) In addition to the special provision for munition workers’ needs initiated locally, central organisations such as the Y.M.C.A., the Y.W.C.A., the Church Army and the G.F.S. inaugurated schemes for their benefit. In February, 1917, the “Archbishop’s Committee for Munition Workers” was formed, under the chairmanship of the Bishop of Dover. It started a comprehensive scheme for the material as well as the moral welfare of munition workers throughout the country, though primarily in crowded areas such as Woolwich. With such efforts the officers of the Welfare and Health Section co-operated.
\(^4\) Hist. Rec./R/346/39. (Memorandum by Miss G. E. Hadow, who directed the extra-mural work from its inception.)
enthusiasm for the Girl Guide movement. . . . Their object is to stimulate local committees, to arouse local enthusiasm, and they have in many cases been successful in finding voluntary workers to take up the suggestions they have made and to establish welfare on a civic basis."

This extra-mural welfare work was financed in part by direct grants or by writing off allowances for certain definite purposes. Its incidental expenses were met from a fund of £6,000 placed at the disposal of Mr. Lloyd George for the benefit of munition workers by the Maharajah Scindia of Gwalior in July, 1915. This sum was spent on objects such as pianos and books for munition workers' hostels and clubs, seeds and gardening tools to be used on the ground outside hostels, swings for munition workers' children, and, in larger grants, for courses of lectures organised by the Y.M.C.A. for munition workers, for salaries of games organisers and the cost of running factory boys' holiday camps, etc.

II. Special Problems of Extra-Mural Welfare.

(a) Transit.

The concentration of labour for the production of munitions necessarily involved difficult problems of transit. On the one side these bore upon the housing policy of the Department, since if workers were not to spend excessive amounts of time and money in travelling daily to their work, or in periodical visits to distant homes, the provision of housing or lodging accommodation for them near the factory was the obvious alternative. On the other hand, the travelling difficulties experienced by munition workers had an obvious connection with the attitude of the Department and of employers to questions such as the hours of labour and fatigue in munition works, the organisation of canteens with opportunities for hot meals after long journeys, and the general well-being of the workers. It was from this point of view that the Health of Munition Workers Committee in February, 1916, drew the special attention of the Department to the strain and fatigue caused by their daily or nightly journeys to workers compelled to live at a distance from their work.

"Often the fatigue due to long periods spent in travelling is greatly increased because trains, trams and buses are liable to be filled to their utmost, even standing room being often

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1 See Appendix I.
2 A book of photographs of munition workers at play was despatched in 1918 by the Department to the Maharajah in India, in order that he might realise the pleasure conferred by his gift. (L.R. 487/8.) The fund was supplemented by two donations, of £50 and £20 respectively, sent as personal offerings to the Minister of Munitions in August and September, 1915; the first from a British resident in Greece, in token of regret at his inability to fight for his country, the second from a poor woman of 75, who wrote from a remote village that she had "made a sacrifice for our dear King and country in these trying times" (M.W. 55388). These two cases are typical of the offers of help and service to which the Department became accustomed in the months immediately following its establishment.
3 See Vol. V., Part V.
4 M.W. 60197/12.
difficult to obtain. Women and young persons may be compelled to wait until after the first rush has passed. The following examples are typical of many that have come to the notice of the Committee.

(i) "The length of time spent in travelling is a noticeable feature in connection with this factory. This is partly due to the fact that a number of workers come in daily by train from outlying districts, but it is also largely attributable to the exceedingly bad car service, about which there is universal complaint. In the morning workers often have to allow twice the time that would ordinarily be taken to travel the distance to the factory, and even then they are frequently late. It is said to be not uncommon to wait 20 or 30 minutes before being able to get on to a car and then a worker considers herself lucky if she finds standing room. . . . One girl . . . gets up every day at 3.45 a.m. and does not get to bed till 11 p.m., spending just on five hours in travelling and waiting about. Most of these long distance workers prefer living at home, even with these long journeys, to the idea of living in lodgings.

(ii) "Some workers come from a distance. One young man leaves home at 4.45 and gets his first meal at 8.30 a.m.; he reaches home in the evening about 9.30 p.m., and after food gets to bed about 10.30 p.m. He gets therefore about six hours' sleep. Another man . . . leaves home at 5.5 a.m. and returns at 9.15 p.m. Cross-country transit across a radius of outer London would save much time lost in travelling into London and out again.

"Again, a tired and heated worker is very liable to chill if obliged to stand about after work and may be tempted to enter a convenient public-house for rest and refreshment. . . . A typical case is that of a worker . . . who, in order to start at 8 a.m., must get up at 4.30 a.m. because no later train is available. She reaches work at 7 a.m. and does her best to occupy herself usefully during the waiting period. . . . In the evening the men come out of the shops hot and have to wait for half an hour. There is the danger of their waiting in the public-house.

"In some instances much time is lost owing to the absence of any direct means of transit. In some cities, such as Birmingham, the trams radiate from the centre of the town, and much loss of time and difficulty is experienced in getting from one point on the outskirts to another.

"Where other means of transit are not available firms have in many cases provided special brakes for conveying their workers, but such facilities are often not available, so that the workers are compelled to walk a considerable number of miles before and after a twelve hours working day."
"Long periods spent in travelling to and from the works are not only in themselves productive of fatigue, but also make it difficult for the worker to get adequate food at proper intervals. An early start may mean not only a scrappy and hasty breakfast, but an interval of three or four hours at least before any adequate meal is obtained. . . . Further, in many factories it is still necessary for a worker to bring with him any food required during the day; when the start is early the food must be put up over night and . . . it is likely to become stale and unpalatable before it is eaten.

"Wages are generally sufficient to cover the cost of transit, but this is not always the case with women, and their wages are sometimes barely sufficient to cover the cost of lodgings and transit, so that it is difficult to them to afford the occasional day off which may be essential to the maintenance of their health. Difficulty is experienced in obtaining workmen's tickets for night workers and others travelling outside the hours during which such tickets are usually available.

"The Committee fully recognise that the difficulties in improving these conditions are great. Railway, tram and omnibus companies are alike suffering from heavy reductions of staff through enlistment, and the railways at any rate are continually called upon to meet heavy and urgent military requirements. The problem in each area is different and must be considered separately in the light of local conditions and difficulties. No general solution is possible. Although difficulties of housing and transit are doubtless most severe in centres like Woolwich, Coventry, or Newcastle, where the numbers involved are large, it should not be assumed that the difficulties are confined to these places. The evidence before the Committee shows that there are many other cases where action is needed. . . . The Committee realise that the employer and his ordinary staff can afford but little time for the detailed investigations necessary, and they have therefore in their memorandum on Welfare Supervision given much prominence to the need for the appointment or designation of someone, one of whose special duties it should be to inquire into the difficulties of housing and transit and to seek their solution."

It was at once arranged, as a result of this letter, that an officer of the newly-formed Railway Transport Section in the Department should be responsible for questions dealing with the transit of munition workers.

The work of this section of the Department is described elsewhere.\textsuperscript{1} The improvements which it effected in the different methods of conveyance used by munition workers may be summarised as follows.\textsuperscript{2}

Lack of railway facilities were overcome by erecting halts at convenient spots, connecting works by sidings with the railway company's main lines and erecting alighting platforms inside the premises,

\textsuperscript{1} See Vol. V., Part V.  
\textsuperscript{2} Hist. Rec./R/2020/2.
improving the accommodation at stations which had become too small to cope with the increased passengers, altering the existing train services to suit the hours of work at factories, and providing railway and motor bus services and increasing existing tramway facilities. In this connection, 56 halts and other works were constructed at an approximate cost of £150,000.1

In many cases improvements, such as loop lines, were secured in local tramways. Negotiations by the Department, involving numerous meetings with corporations and other public bodies, resulted in a number of motor omnibus services being started. Some of these services supplied districts remote from the railways and resulted in many workers being obtained who otherwise would not have been available.

The work of the section included river transport, and at Woolwich, by arrangement with the river authorities, a service of cross-river boats was provided which disposed to a great extent of the congestion complained of in the letter quoted above. “An additional ferry was constructed and two boats obtained from corporations in other parts of the country and a new service inaugurated. This shortened several thousand men’s journey by forty minutes each way.”

This organisation of transit was a very definite contribution both to the mobilisation of labour for munition work and to its well-being, although it was clearly impossible to overcome completely difficulties of travelling under the special conditions of the war. When the local welfare officers of the Department in 1917 and 1918 met with outstanding transit difficulties, from insufficient tram, omnibus, or train services, insufficient platform and waiting room accommodation, dark and overcrowded trains, etc., they referred these to the Transit Section for remedy. In some cases, equally, they were able to secure improvements locally, or to stimulate agencies, such as the Girls’ Friendly Society or Young Women’s Christian Association, to establish canteens or rest huts at suitable points.

For one problem of transit the extra-mural officers of the Welfare Section made special provision. Many of the women and girls arriving from a distance to make munitions were wholly unaccustomed to travelling, and set forth with no security as to lodgings on arrival. Also many of them, in spite of stringent directions by the Employment Exchanges, arrived almost penniless, and with no prospect of further funds until their first week’s, or first fortnight’s, wages were paid. It was found even in 1917 that would-be munition workers, “after long journeys, necessitating several changes or possibly crossing London, were arriving in the small hours of the morning, exhausted and discouraged, having had little or no food on the way, and not knowing how to find their lodgings.”2 To meet the needs of these inexperienced

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1 Thus at a Government factory in the north of England, 1½ miles from the nearest station and 6½ miles from the nearest industrial centre, a halt was erected by arrangement with the railway company at a convenient spot adjacent to the works, and 50 special train services per day were provided for the 25,000 workers.  
travellers, arrangements were made by the Welfare and Health Section in May, 1917, whereby, at a very small charge to the Department, girls were met and seen across London, or taken to their destination elsewhere by members of the Travellers' Aid Society. Further, it was arranged that any girl could, on the recommendation of the welfare officer or the officer of an Employment Exchange, be given a night's lodging at one of the "clearing hostels" established in the most populous munition areas by the Department and by voluntary agencies.

(b) Lodgings.

Reports were at one time constantly received of the overcrowded and insanitary condition of lodgings in certain munition districts. In some cases firms had undertaken to make inquiries as to suitable lodgings, either through their welfare supervisors or through special investigators. Thus, Messrs. Vickers had, in August, 1915, begun to compile a register of rooms available, at Lancaster.\(^1\) In some towns local committees, such as those established by the Home Office and the Ministry of Labour in connection with women's war employment, had, at an early stage of the war, undertaken the work of finding and, to some extent, supervising lodgings. Except, however, in a very few districts, these efforts were in no way equal to the demand in 1917. To meet the need, such Lodgings Committees were, after the appointment of extra-mural welfare officers, established or strengthened; and lodgings investigators, in some cases of the working woman class, were appointed to compile a register of lodgings, meet and take girls to them, and visit them periodically. It was found that such visits did much to smooth over any little difficulties between landlady and tenant, and to bring to light individual cases of hardship or distress among the lodgers. Detailed investigations of lodging conditions were made in certain towns.

"The result of such inquiry was uniformly the discovery of a large number of additional lodgings. In many cases the people had not thought of taking lodgers, but were quite willing to do so when asked. Many of the most serious cases of overcrowding proved to be due not to the scarcity of lodgings, but to the fact that they were at some little distance from the factory or that the tram service was inadequate. In some cases comfortable hostels were found to be half empty, while lodgings were overcrowded, the girls preferring the homeliness of the kind of life to which they were accustomed to a new and strange community existence."\(^2\)

It was found possible by thus getting a list of good lodgings to remove girls from bad surroundings.\(^3\) In connection with this, hospitality committees were organised, at the suggestion of the welfare officers, in some towns, consisting of people ready to befriend the imported workers and invite them to their houses out of factory hours.

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1 Hist. Rec./R/346/30.
2 Hist. Rec./R 346 39.
In the provision and inspection of lodgings for munition workers the extra-mural welfare officers co-operated with the local billeting committees, which were appointed in twenty-nine "munitions" districts, under the Billeting of Civilians Act of 24 May, 1917. These committees in some cases took over the lodgings investigators previously employed by the Welfare Section. The local billeting officers had the right (which, however, they were not called on to exercise) of compelling householders to accept as lodgers, at authorised rates of payment, persons engaged on work of national importance. They operated with very little local friction, and had the advantage of definite organisation and powers for carrying out work elsewhere handled less authoritatively by the welfare officers.¹

(c) Hostel Inspection.

In December, 1916, the Welfare Section was advised that the inspection of all hostels in which munition workers were housed fell within the powers of the section, inasmuch as "the way in which female workers are housed may be considered to be one of the conditions of their employment." Inspection was therefore started, and although no compulsory powers under Section 6 (1) of the Act of 1916 were used, it was found that in the "majority of cases the management was very willing to carry out the Department's recommendations." The Welfare Section was empowered to recommend financial help under certain circumstances.² Rates of board were fixed, as far as possible, at economic levels (i.e., at rates only slightly below those charged locally in lodgings); but it was obviously difficult for hostels, admittedly put up for temporary use only, to cover all their establishment charges as well as their running expenses, and the majority of hostels were probably run at a loss.

Hostels were inspected with reference to the demand for accommodation, the building and construction, the charges made, the catering, the accommodation, management, general comfort and welfare of the tenants.

The hostels inspection fell, in 1918, into the following groups:

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<tr>
<td>Housing Construction Department</td>
<td>67</td>
<td>Y.W.C.A. ... 56</td>
<td>Messrs. Vickers 68</td>
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<tr>
<td>Department of Explosives Supply</td>
<td>145</td>
<td>G.F.S. ... 27</td>
<td>Private Committees and Firms 112</td>
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<td>National Filling Factory Department</td>
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<td>Y.M.C.A. ... 8</td>
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<td>National Projectile Factory Department</td>
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<td>Salvation Army ... 9</td>
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<tr>
<td>Royal Arsenal, Woolwich</td>
<td>7</td>
<td>Other Societies ... 21</td>
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Of these, 220 were men's hostels, 302 were for women, 2 were for boys, comprised in 236 estates and accommodating about 15,400 men and 25,400 women.

¹ See Vol. V., Part V. ² See Appendix I.
It will be observed that a large proportion of these hostels were either owned by private firms or by the Government Departments immediately responsible for the factories in which the workers were employed. There were theoretical objections to this from the standpoint of labour, just as there are to the "living-in system" or to employers' housing schemes, in the possibilities given to the employer of excessive control of the worker. In practice, however, it was found that these hostels filled quite as readily as those provided by voluntary agencies. The proportion of the total hostel capacity occupied was approximately two-thirds of the whole available in January, 1918, the rate being larger for women than for men, who found it, on the whole, more possible to secure accommodation for themselves and thus avoid the "institutional" life of a hostel.

As a result of the work of inspection, information applicable equally after the war to the needs of the normal industrial worker was acquired by the section, which enabled certain standards to be established, similar for men and women, and only modified in some cases for navvies, for the planning, equipment, finance, and food supply of hostels, a group of subjects little touched by pre-war experience. The inspection staff were able, in addition, to formulate extremely practical advice on these matters, to develop a standard for the management of hostels, and to urge on those responsible for their establishment the importance of securing superintendents with the right personalities and at adequate salaries. As far as possible, managers of hostels were urged to form tenants' committees. These were in some cases very successful, although attempts to foster self-government did not make very much headway among women residents.

In addition to the inspection of lodgings and hostels the Ministry of Munitions was responsible for extensive housing schemes which involved the erection of both temporary and permanent houses, the provision of hostels and arrangements for the billeting of munition workers. These schemes are dealt with in detail elsewhere.

(d) Sickness and Distress.

In dealing thus with munition workers' lodgings and hostels, cases of distress were inevitably found among women workers who had no obvious claim to local help, and found the 7s. or 5s. weekly sick pay under the Insurance Acts inadequate to support them when unable to work. Factory benevolent funds, organised by the workers or by welfare supervisors, helped numbers of such cases, but did not cover all. To meet the need of these hard cases and those of workers stranded on their journey from one munition area to another, a small benevolent fund was given to the Welfare Section for emergency use by the welfare officers.

1 See *Final Report of the Health of Munition Workers Committee*, pp. 166-175.
2 Vol. V., Part V.
4 See Appendix I.
In addition to the needs of sick and stranded workers, there was the very difficult question of provision for maternity among munition workers. The question was in itself by no means a war problem, but the need for its solution was intensified among women living often under overcrowded conditions away from home.

Two lines of treatment were considered: first, the provision of light work, so that a woman in need could earn as long as she was able to do so; and second, the provision of maternity homes, etc.

With regard to the first line of action, a valuable experiment was tried at Leeds, where in April, 1918, the doctor in charge of the medical work at the three National Ordnance Factories organised, in consultation with employers and working women's organisations, a scheme under which women employed at these factories, and subsequently at other factories in the city, were, with their own consent, transferred some months before their confinement, first to light work at standard rates in a fuse assembling factory, and, secondly, to a special clothing store and sewing depot, in which factory overalls, etc., were made, and in which special consideration could be given to the workers. The experiment paid its way, and was warmly received by the women for whom it was intended during the few months before the Armistice. Accommodation had at that date been secured for a hundred women at a time.1

With regard to the second point, a special report, drawn up by Miss Squire and Dr. Campbell for the Health of Munition Workers Committee, was forwarded, in September, 1917, by that Committee to the Welfare Section, calling their attention to the "urgent need for immediate action,"2 since careful investigation had shown that the existing provision of maternity hospitals and rest homes, admittedly defective before the war, was wholly inadequate for the requirements of certain of the congested munition districts. Early in the following year informal assent was obtained from the Treasury towards expenditure for this purpose by the Welfare Section, and in March a grant was sanctioned, by way of experiment, to a maternity home at Norwood for London munition workers. In April, 1918, in response to representation by the Department as to the pressing need in some eleven specified munition areas, the Treasury gave their sanction in principle to an expenditure not exceeding £25,000 in twelve months for maternity hospital accommodation, under certain conditions, one of these being that each scheme should be submitted for separate approval by the Treasury, and that the Ministry of Munitions was satisfied as to the lack of local accommodation.3 In accordance with this sanction, assistance was asked for schemes at Carlisle, Lancaster, Coventry, and for a hostel at Ealing for Hayes munition workers.

The Welfare and Health Section was in close touch with the Local Government Board in connection with these schemes.

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2 L.R. 2258/22.
3 Treasury letter 14009/18 (L.R. 8003/2).
In 1917 an agreement was made with the Board of Education, by which the Ministry of Munitions undertook to pay 75 per cent. (if necessary) of the initial cost of day (or night) nurseries for munition workers' children, together with a payment of 7d. per day for each attendance made. The officers of the Ministry of Munitions would be responsible for investigating the need of a crèche in a munitions area, and for ascertaining the amount of local support available. The Board of Education undertook to superintend the initiation of an approved scheme, and to inspect munitions crèches along with the subsidised crèches already visited by its inspectors. Forty-one crèches received grants from the Ministry of Munitions under this scheme.\(^1\) The advisability of promoting factory crèches, as in France and Italy at the same period, was considered in detail by the Welfare Advisory Committee\(^2\) in the summer of 1918, but it was decided to make no recommendations thereon, on account of the theoretical objection to associating so vital a part of the worker's interests with her place of employment, and the practical difficulty of taking a baby on the long crowded journeys undertaken by many munition makers on their way to work.\(^3\)

(f) Recreation.

As the very long hours of overtime work, common in the early stages of the war, were shortened, and the country realised that it was no longer possible to "sprint, as if for a short race," in the production of war material, it became clear that it was essential to have adequate opportunities for recreation among factory and other workers, by way both of wholesome occupation for leisure and relief from nervous strain.\(^4\) The Home Office recognised this when, in October, 1916, it called together a representative conference of the leaders of boys' and girls' organisations, which was the nucleus of a standing committee established, in January, 1917, to promote opportunities of recreation for the young people whose lives had been disorganised by the war. As the local officers of the Welfare and Health Section began, in the summer of 1917, to consider the existing provisions for munition workers' leisure, it became clear to them, first, that there was a very great shortage of such provision (many of the pre-war schemes having died down for lack of workers); secondly, that such provision as existed did not always meet the present needs—the type of evening club provided, for example, had often not kept pace

\(^1\) L.R. 2960. See Appendix I.

\(^2\) A Welfare Advisory Committee was appointed in May, 1918, and was intended to serve as a Departmental Committee to carry on to some extent the work of the Health of Munition Workers' Committee. It had, however, few meetings, and ceased to operate after August, 1918.

\(^3\) A Report on the Welfare of the Children of Women employed in Factories in France and Germany, drawn up for the Ministry of Munitions at this time, was published in 1919 by the Local Government Board.

\(^4\) The Reports of the Commission on Industrial Unrest in July, 1917, drew special attention to the needs of recreation.
in its organisation with the very rapid change of outlook and the spirit of independence produced in factory lads and girls during three years of war; and, thirdly, that there was much ignorance of each other’s objects and methods among the existing institutions, and little attempt to deal with the very comprehensive problem of recreation as a whole. In a few towns (such as Birmingham, where a Civic Recreation League had been founded in the previous autumn) attempts had already been made to co-ordinate and supplement the existing facilities; in a number of others, successful experiments had been made by voluntary organisations in new types of recreation, such as those offered by “mixed clubs” for boys and girls. In none, however, was the provision adequate for the needs, and the welfare officers co-operated actively in the development of existing schemes for its extension, and in urging the introduction of new schemes when they were required. On 21 July, 1917, leave was given by the Treasury for the cost of recreation schemes approved by the Welfare and Health Section in controlled establishments to be written off the sum contributed to the Excess Profits Duty up to 10s. per head per year of those benefiting by the provision made, and a similar undertaking was given for national factories.¹ With this provision, the development of recreation schemes for industrial workers multiplied with great rapidity during the end of 1917 and in 1918.

There were two alternatives in the organisation of recreation in accordance with this concession, although the same financial provision applied to both. Schemes might, as under pre-war conditions, be organised by firms for their workpeople, with a greater or less amount of co-operation from the latter, or they might be developed and controlled by some representative body.

The provision of recreation schemes by firms has been discussed, in part, in connection with boys’ welfare. There were the same objections to such provision as to that of factory crèches for the workers’ babies—the theoretical objection of possible interference with the workers’ leisure hours by the firm, and the practical difficulty of distance if the workers’ homes were scattered and far from their work. On the other hand, the esprit de corps fostered by common employment often made the adoption of works schemes desirable. These, indeed, had existed widely in times of peace, but they developed very much during the last two years of the war, and a considerable proportion of large firms then had their recognised athletic and social clubs, embracing every variety of sport, etc., from cricket and football and tennis to orchestras and pierrot troupes. A few examples may be given.²

¹ L.R. 4764. See also Appendix I.
² These examples may profitably be considered in connection with the industrial unrest of the early summers of 1917 and 1918. The larger Coventry firms, among whose workers unrest was constant, were well equipped with scout troops, football clubs, orchestras, etc., for their boy workers at least. Two of these firms had cinemas; three others had, in January, 1918, adapted canteens as theatres. [(Printed) Weekly Report, No. 124, X (8/1/16)].
(1) A very complete scheme was submitted for the sanction of the Welfare Section by a Bath engineering firm in June, 1918. The firm proposed a complete scheme of recreation for 1,371 employees (987 men, 167 women, 190 boys). It was proposed to provide tennis, football (two grounds), hockey, cricket, a gymnasium, a boys' club, swimming competitions, papers for the canteen, a girls' club and other amenities, at a total cost of £1,022. The income from the employees' subscriptions was estimated at £185. In this case the Department recommended a grant at the rate of 9s. 10d. a head (£677).1

(2) Some schemes sent up for sanction were on a very much larger scale than this. Thus, late in 1918, a very large firm asked for an 8s. capitation grant for the benefit of the 10,000 workers in one of its numerous establishments. The firm proposed a comprehensive scheme which would cost £15,000 to introduce. Of this sum the firm proposed to bear more than two-thirds. The workers' subscriptions at 5s. per head were expected to produce £1,250 towards an estimated annual cost of £2,350.2

A State subsidy, direct or indirect, would obviously give a valuable stimulus to schemes of this type.

(3) In March, June and September, 1918, formal approval was given by the section for grants of 2s. 6d. a head of the employees concerned to finance a recreation scheme for the employees of a steel works near Birmingham. The neighbourhood provided very little opportunity of recreation of any kind, and the firm opened a canteen and social club, to be managed by a workpeople’s committee, with a field for all kinds of outdoor games, together with a holiday resort on the Avon, at which batches of workers could stay for fishing and boating during the week-end. Out of the 748 employees (mostly men and boys, but including 170 women and girls) nearly half joined the social club during the first summer, paying 2d. a week. The firm, in applying in January, 1919, for a further grant towards the cost of a boat and fishing punt, etc., at the holiday home and the cost of upkeep of the cricket and football ground, expatiated on the great success of the scheme, which had already created a different atmosphere in the works, and was likely to be “the forerunner of similar good work among other firms in the trade.” It had proved its value “not only in providing healthy, enjoyable exercises and recreation in a Black Country district where little or no facilities of the kind exist, but, almost equally important, it was providing a link uniting employers and employed, both working together for the common good.”3

This expression of satisfaction was typical of many others received during 1918. Wherever possible, in dealing with applications for these grants, the Department urged the establishment of a democratic constitution for the management of recreation schemes, despite frequent representations by the firms concerned that management was simpler and more effective if not delegated. Democratic

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1 L.R. 1459/2.  
2 L.R.W. 208/5.  
3 L.R. 2245/18; C.E. 2323/15.
government would obviously not per se ensure the success of a recreation scheme, yet the outstanding cases of failure of carefully prepared plans and neglect of elaborate "institutes" very commonly coincided with autocratic management by the firm without consultation of the workers.

As an alternative to recreation schemes provided by and for individual firms, combined recreation schemes for the whole of an area developed in 1917 and 1918. The Home Office had, in the summer of 1917, circularised a large number of towns, and had recommended the foundation of local "Juvenile Organisations Committees," in order to secure combination in dealing with the welfare of school-children and young people. The welfare officers were already, in a number of towns, co-operating with or stirring up combined recreation schemes; and the two Departments agreed in the autumn of 1917 to ask these Juvenile Organisations Committees to extend their scope of action to all classes, men and women, boys and girls, in munitions areas.¹ As a result a number of civic recreation schemes were started. These had very wide possibilities. They ranged from proposals covering the whole of an area (such as that originated for the whole Merseyside district in April, 1918, where a very comprehensive organisation was developed, for strengthening and supplementing existing undertakings for boys and girls, developing schemes for men and women's recreation, e.g., in mixed clubs, securing playing fields, so far as possible, and experimenting on the establishment of "social institutes") to more limited provision—primarily—for munition workers' needs, such as that made at Hereford, where a central club for munition workers, opened late in 1917, developed in the following year into a flourishing outdoor club, with a playing field for tennis, croquet, net-ball and skittles, with dancing and open-air concerts, at a payment of 6d. a week by each member.²

Many examples of such schemes could be quoted. At Leeds a central recreation club for 4,000 workers was opened in 1918; in various districts of South Wales a Federated National Club Movement, fostered and inspired by the local welfare officer, took root, in order to "co-ordinate all existing efforts to promote social and educational facilities," with a central mixed club providing sports, musical and dramatic societies, educational classes, dances, whist drives, etc.

These collective schemes were usually formed under the presidency of the local Mayor, with a finance committee of business men to apportion the funds and with full representation of labour. As has been said, they supplemented and strengthened existing agencies, and relied on local patriotism for their success.

The movement for the civic organisation of recreation had already, by the close of the war, large aims and possibilities of development, and the share of the Welfare and Health Section in its initiation was probably one of the most lasting forms of extra-mural welfare work. Combined recreation schemes sometimes took many months to mature, so that a good deal of the organisation undertaken by the section in 1918 was in effect a bequest to the period of peace.

(g) Public Order.

Indirectly, care for munition workers outside the factories included in its scope the promotion of public order; and the provision made for recreation and for the transit and housing of imported workers was a very practical contribution to this end. More direct action, of course, came within the sphere of the local authorities. In this connection the extra-mural officers co-operated with the newly appointed women police and patrols, who were immediately concerned with the maintenance of order. As many as 985 women police were supplied during the war by the "Women Police Service" to munitions factories, mainly for intra-mural work in National Explosives and Filling Factories. Twelve women police were provided by the Ministry of Munitions for outdoor work in the City of Carlisle and 164 were employed at Gretna. Their work at the latter place was, on its cessation in 1919, warmly commended by the Chief of the Gretna Police as the inauguration of "a new and beneficent movement for the protection and guidance of young workers."¹

III. The Character of Extra-Mural Work.

The Welfare and Health Section in its extra-mural work was meeting merely temporary needs much more than was the case in its organisation for the comfort and efficiency of workers inside factories. War pressure had uprooted working men in every part of the country and had, to a degree that had previously appeared impossible, removed the immobility of women's labour. In safeguarding, to some extent, this process, the Welfare Section had to improvise practical and sympathetic treatment for the needs of the transplanted workers, treatment which involved consideration as much of their psychological as their material requirements. In meeting these needs it inevitably came up against a series of outstanding social problems as they concerned working-class lives as a whole, and not only those of transient munition workers. Further, it operated on a field already partly covered by the forces of local government and of voluntary organisations, and indeed largely developed this side of its work in order to fill in the gaps left by existing agencies. Obviously, it could not attempt to give, in less than two years, lasting solutions of social problems, nor to act as other than a temporary stopgap in the organisation of social welfare. It improvised, however, effective and unconventional treatment for a number of practical difficulties, and offered a valuable contribution towards the establishment of certain forms of welfare on a lasting civic basis.

¹ Women Police Service, 1919. L.R. 682/16.
CHAPTER IV.

MEDICAL AND RESEARCH WORK.

I. The Establishment of a Factory Medical Service.

The precise position given to care for the workers' health varied in different schemes of welfare administration. In some factories, welfare supervision grew out of the work of factory nursing. In others, the welfare supervisor was responsible in a more or less definite sense for the organisation of first-aid and nursing in the factory; and it was urged periodically that training for welfare supervision should consist very largely in matters of hygiene. Probably the establishment of efficient first-aid provision and nursing was one of the aspects of the official policy of welfare administration which was most readily accepted by employers and workers. More definite steps than the organisation of nursing and first-aid in factories were, however, taken by the Welfare and Health Section in its second year's work, in order to establish an organised method of attack on the health problems of factory life from within. Whole-time medical officers were, with the co-operation of the Ministry of Munitions, attached to the staffs of a number of factories to supervise the health conditions under which work was carried on, and to watch the health of individual workers. These officers, while primarily responsible to their own factory management, were also under the control of a medical staff at the headquarters of the Ministry, who visited the factories and advised the factory medical officers on problems that arose. The position of the factory doctor in relation to the factory management and to the Department was thus comparable to that of an army medical officer, in relation to his battalion Commanding Officer and to his administrative superiors in the army medical service, respectively.

The shortage of doctors during the war prevented the extension of this system beyond those munitions industries which subjected the workers to special risk, such as the factories for the manufacture or manipulation of T.N.T., lethal gases, and other poisonous explosives. The precautions taken for the safety of workers in these industries, however, brought medical men and women into intimate contact with the internal life of factories to a degree hardly possible before the war. The success of the special work of this factory medical service, together with the help given by research, during the war, in the solution of practical problems of workshop ventilation and lighting, the feeding and the regulation of the hours of work and time-keeping of munition workers, opened a new field for co-operation between medical science and the factory management of the future.
II. The Fight against T.N.T. Poisoning.

(a) The Scope of the Problem.

The technical side of the methods by which the Ministry of Munitions dealt with T.N.T. poisoning among munition workers is treated in detail elsewhere. A brief account, however, of the Department's fight against the bad effects of T.N.T. work upon the workers must, omitting technicalities, find a place here, both on account of the intrinsic interest of the means taken to safeguard the workers' life and health, and because the Welfare and Health Section developed its care for matters of health primarily in connection with the very special problems of welfare which the use of T.N.T. originated.

Trinitrotoluene (T.N.T.) is a high explosive obtained by nitrating the coal tar product toluene. Before August, 1914, it had been little used, and was believed on expert opinion to be harmless "in ordinary use." With the growing demand for high explosive ammunition, its use increased very greatly in 1915 and 1916. Munition workers were exposed to it both in its manufacture and in the filling of it into shells, bombs, mines, grenades, etc. Comparatively few workers were, however, required for its production, whereas very large numbers (chiefly unskilled workers, four-fifths of whom were, by 1917, women) were engaged directly and indirectly in the later processes. The filling factories producing for the Gun Ammunition Filling and the Trench Warfare Divisions of the Department were therefore the primary scene of action in the fight against T.N.T. poisoning.

It is impossible to estimate accurately the number of workers exposed at any given time to the action of T.N.T., for not all the National Filling Factories used the substance, and some of the workers, in those factories where it was employed, were quite remote from its use. Since, however, the incidence of illness from T.N.T. was not confined to those handling it, it might be argued that all operatives in factories employing T.N.T. in any of its different forms were exposed to its effects. In January, 1918, T.N.T. was handled by some or all of the operatives in 29 trade factories, 10 national filling and 9 of H.M. factories engaged on the manufacture of explosives. The number of workers thus directly exposed to T.N.T. at this time was estimated at over 50,000 by H.M. Medical Inspector of Factories. Further, the wastage of labour, great in almost all munition factories among women munition workers, ranged from 60 per cent. to 100 per cent. per annum in filling factories in 1917, being greatest among those of under six months' service, i.e., the newcomers whom statistics showed to be specially liable to the different forms of illness produced by T.N.T. Therefore a much larger number came in one year within the poisoning range than the numbers employed in connection with it in any one month would warrant, while it was recognised that "severe effects of T.N.T. might fall on the workers six months after all connection with the factory had ceased."

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1 See Vol. X., Part V.
2 Cd. 9108 of 1918. According to a Report of the Ordnance Board in 1908, there was "no reason to suppose any hygienic objection to its manufacture."
4 Circular M.M. 197, Report of Hours of Labour Committee.
5 Dr. Legge, in the Factory Inspectors' Annual Report for 1917-18.
(b) The Early Methods of Working in T.N.T.

T.N.T. work in filling factories at the end of 1915, before its toxic properties were fully realised, involved mainly the following processes:—

(i) In the melthouse, T.N.T. with or without ammonium nitrate in crystals, was melted down and poured into shells. If this latter process was done carelessly or without proper equipment, the shells, the trucks in which they stood, and the floors were splashed with molten explosives, either T.N.T. or amatol (the product of T.N.T. and ammonium nitrate), and not only the shell fillers, but the cleaners of shells, floors, and trucks came into contact with the substance. The melting process, further, produced fumes which obviously affected the atmosphere.

(ii) In the presshouse, the same two substances, after being incorporated as a fine mixed powder by grinding in a mill, or the pure T.N.T. unblended, were then weighed out by hand and introduced as powder into the shells, partly by mechanical presses, partly by "hand stemming," or hammering in with a wooden mallet or stick through a loose funnel inserted in the shell opening. A thick layer of dust tended to accumulate on the ground, on the trucks on which the shells stood, and on the persons of the workers, whose exposed hair and skin became a tawny orange, while the air was filled with the same fine dust.¹

The dry powder was also poured into small paper "exploder bags," which were then tied up by hand; while the T.N.T. was pressed into pellets for gaine cavities, and filled into gaines, etc. These processes of manufacture gave full opportunity for the effects of T.N.T. working to tell on the operatives either by contact with the molten amatol, in liquid form and congealed on shells, trucks, floors, etc., or with the dust scattered in filling, or by inhalation of fumes or dust-laden air. Little attention was paid to these possibilities until the end of 1915, partly because current medical work held T.N.T. filling work to involve little danger, partly because a large proportion of the T.N.T. then used was of a very high standard of purity and therefore comparatively innocuous.²

(c) T.N.T. Illness in 1916 and Administrative Action.

Two or three cases of possible T.N.T. poisoning had been reported to the Home Office in 1915, but the first death officially recorded³ as due to T.N.T. poisoning took place in January, 1916. This case was reported from a trade factory. In March, two deaths from T.N.T. poisoning were reported from Woolwich Arsenal and one from H.M.

¹ I.R.W. 218/17, and report by Dr. George Moore to the T.N.T. Committee in December, 1916, on the Toxic Effect of T.N.T.
² Hist. Rec./R/364/35.
³ By order under section 73 of the Factory Act, toxic jaundice, if contracted in a factory, had on 27 November, 1915, been made notifiable by all medical practitioners to the Factory Department of the Home Office. The provision was, however, intended to secure notifications of this disease, not only when due to T.N.T., but also when caused by working in tetrachlorethane dope, by which much illness was caused until its abandonment in the summer, 1916.
Factory, Slade's Green. In May there were five cases with three deaths, in June eight cases with two deaths, in July sixteen cases with five deaths, seven of which, including two deaths, were of workers in National Filling Factories.

The Home Office, normally responsible for dealing with all matters in connection with dangerous trades, took action early in the year both to circulate information and directions to medical officers connected with the factories, and to secure investigation into the causes and prevention of this little-known form of poisoning. In July the Home Office, on the recommendation of the Medical Inspector of Factories, Dr. Legge, sent formal recommendations on the subject to the Ministry of Munitions, and accordingly the National Filling Factories and trade factories were at once circularised by the Department, urging that special attention should be paid to "clean" working until further precautions against T.N.T. danger could be perfected; that alternation of workers from T.N.T. to other work should be arranged; and that exploder bags (among the fillers of which six out of the eleven deaths recorded had occurred) should be filled with a smaller charge, in order to diminish the likelihood of spilling the powder. Most factories agreed to fall in with these recommendations, but one or two explained that they could not alternate their workers without reducing output, then urgently required.¹

Early in July it was decided, on the recommendation of Dr. Legge, to attach a medical officer to the Gun Ammunition Filling Division; and on 1 September Dr. W. J. O'Donovan, of the London Hospital, was appointed as supervising medical officer for the Ministry to collect information from the doctors attached to the various factories, to distribute the results of their investigations, to help them in laying down precautions against T.N.T. poisoning, and to advise the Department on devising means for preventing its occurrence. On 15 August Dr. Addison, at a departmental meeting of representatives of the supply departments, factory managements, and scientific bodies concerned in the use of T.N.T., stated that the Department must assume direct responsibility for dealing with the T.N.T. problems, since it had potential powers under the Munitions of War (Amendment) Act and the Defence of the Realm Act, and in the national factories the Department could exercise the rights of an employer. Colonel Milman, Controller of the Gun Ammunition Filling Division, then explained the precautions already taken. Medical superintendents had been appointed to all the larger National Filling Factories, and steps had been taken to appoint whole time doctors; in the smaller factories local practitioners had been engaged to visit factories every third day. These doctors had received directions from the Home Office with regard to poisoning by T.N.T.²

Vigorous measures were continued by the Gun Ammunition Filling Division of the Ministry of Munitions throughout the autumn of 1916 to stem the tide of T.N.T. poisoning, which was rising steadily until the beginning of 1917, and to enlist the active co-operation of

¹Hist. Rec./R/346/35; L.R.W. 218/12.
factory managements and of workers in every possible way in its prevention. Draft regulations for T.N.T. work had been drawn up by the Health of Munition Workers Committee and had been discussed in detail with factory managers in August, and these served as the basis for action during the autumn and winter. A booklet of instructions to medical officers of filling factories was drawn up by Dr. O'Donovan in October, and a system of medical record keeping on a uniform basis was instituted. The concluding paragraph of these instructions represents the attitude from which the danger to workers was approached by those responsible:

"The medical care of T.N.T. workers is of the utmost national importance. Men and women come to us ignorant of danger, the latter in the healthiest period of their lives; we must spare no pains and no professional skill in preventing their leaving us, injured perhaps even for life."

(d) The T.N.T. Committee and the "Rules for the Use of T.N.T."

At the end of October, 1916, an expert committee was appointed by Mr. Montagu, under the chairmanship of Dr. Morley Fletcher, with representatives of the Home Office (Dr. Legge and Dr. Collis), the Filling, Trench Warfare, Explosives Supply and Inspection Departments of the Ministry, and the Health of Munition Workers Committee, to advise the Minister as to the prevention and treatment of cases of poisoning in filling factories, and to make such inquiries and experiments as they might deem desirable for this purpose. As a result of the work of the committee during the next two months and of the investigations made on their behalf both in laboratories and factories, they presented in January, 1917, a draft code of rules to govern the use of T.N.T. in all factories. Owing to interdepartmental administrative difficulties, the proposed rules did not finally reach the factories till the end of March, 1917, but the active work of the medical officers attached to the Filling Division and the wide circulation of the results of the two committees' inquiries among the medical officers attached to the National Filling Factories, had already to a very considerable extent anticipated the provisions then made obligatory.

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1. In December the trade factories also were asked to send to the Department weekly reports of T.N.T. illness. L.R.W. 218/9.


3. Serious alarm at the spread of T.N.T. poisoning was expressed in the press at this period, and spread to some extent to the workers, although, greatly to their credit, it did not result in labour shortage at the filling factories. Sickness, however, and fear of sickness led to considerable irregularity at work, and made it difficult to enforce strict discipline in this respect. (Hist. Rec./R/346/35.) Thus Dr. George Moore (see p. 70) gave the following figures for absenteeism in one of the national factories on an average day in November, 1916:

<table>
<thead>
<tr>
<th></th>
<th>Men.</th>
<th>Women.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. employed</td>
<td>Per cent. absent</td>
</tr>
<tr>
<td>T.N.T.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melt House</td>
<td>668</td>
<td>25.4</td>
</tr>
<tr>
<td>Press House</td>
<td>808</td>
<td>28</td>
</tr>
<tr>
<td>Buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mill</td>
<td>196</td>
<td>18.4</td>
</tr>
<tr>
<td>Stores (no T.N.T.)</td>
<td>1,077</td>
<td>12.9</td>
</tr>
<tr>
<td>Constructional Work</td>
<td>2,000</td>
<td>2</td>
</tr>
</tbody>
</table>
The T.N.T. Regulations thus issued\(^1\) (under Order 35 A.A. of the Defence of the Realm Act of December, 1916) laid down rules for:—

(i) "Clean" working and good ventilation in T.N.T. workshops; and

(ii) Alternation, in periods of two or four weeks, of employment upon T.N.T. and other work, except when the factory medical officer held this to be unnecessary. (Alternation was adopted in all but one of the National Filling Factories until June, 1918, when the order for it was, with the consent of the T.N.T. Advisory Committee, revoked.\(^2\))

(iii) Canteens must be provided, and half a pint of milk, or an approved substitute for it, given daily, gratis, to T.N.T. workers, who were forbidden to take food in any place where T.N.T. was handled or without washing. Much insistence was placed in practice on the need of good food for those engaged on T.N.T. work.

(iv) The management must supply working clothes, arrange for their being washed at least weekly, and provide changing rooms. (The Gun Ammunition Filling Department provided patterns of approved forms of overalls, and the Explosives Supply Department secured the supply of them through contractors.)

(v) A whole-time medical officer must be engaged for each factory with 2,000 workers, and one or more assistants if there were more than this number; and a woman welfare supervisor, approved by the Welfare and Health Section, must be appointed in all factories and workshops employing women.

(vi) There must be adequate washing arrangements.

(vii) Records and returns, as prescribed, must be kept and supplied to the Department.

When these rules were issued it had already been decided to transfer the medical section of the Gun Ammunition Filling Division to the Welfare and Health Section, then in process of reconstruction.

The responsibility for enforcing the rules was therefore divided between the Supply Departments and the Welfare Section, acting through the Supply Departments, an arrangement which aroused much criticism at first from the Gun Ammunition Filling Division and from the national factories concerned,\(^3\) but which caused less administrative difficulty than had been anticipated. The standard of these regulations was not, however, easy to maintain in the small trade factories, such as certain of those working for the Trench Warfare Supply Department. It was partly on this account that T.N.T. work was, in the course of 1918, concentrated in a comparatively small number of factories.\(^4\)

\(^1\) Cd. 8494 of 1917.
\(^2\) L.R.W. 218/50.
\(^3\) L.R.W. 218/17.
(e) Statistics.

The following are the statistics for illness and death due to T.N.T. officially recorded during the war:—

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Workers Suffering from Illness</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>January to March</td>
<td>6/4</td>
<td>1</td>
</tr>
<tr>
<td>April to June</td>
<td>16/5</td>
<td>2</td>
</tr>
<tr>
<td>July to October December</td>
<td>73/21</td>
<td>2</td>
</tr>
<tr>
<td>October to December</td>
<td>86/22</td>
<td>3</td>
</tr>
</tbody>
</table>

(The figures in italics record deaths. Almost all the cases were toxic jaundice, though a few of aplastic anæmia are included.)

In considering the number of cases and the yearly totals it must be remembered that the numbers employed in the National Filling Factories, to which the great bulk of T.N.T. workers belonged, had increased from a monthly average of 30,000 in 1916 to 71,000 in 1917 (i.e., by 140 per cent.), and had not fallen very much by the date of the Armistice. The most pressing danger of T.N.T. work was nearly ended after the midsummer of 1917, although the difficulties of diagnosis and the elimination of unfit workers from the factories after some brief experience of T.N.T. work make it impossible to dogmatise with complete confidence as to the after effects of exposure to T.N.T. The Department pointed out in June, 1918, in a circular to the factories concerned, that whereas from October, 1916, to March, 1917, there had been 169 cases of serious illness, in the same period a year later there were 42 such cases; while in April and May, 1918, there were four and one respectively. The minor forms of illness due to T.N.T—and Dr. Legge calculated that 30 people suffered from these in proportion to each case of toxic jaundice—had died down. “In August, 1916, 11 per cent. of the operatives at the largest National Filling Factory were suspended by the medical officer for T.N.T. sickness; in January, 1918, only 1 per cent. And at that date in all the other T.N.T. factories the percentage amount of T.N.T. illness could be represented in decimal fractions of the numbers employed.”

(f) Methods of Attack.

This very great improvement was ascribed by the Department in the circular just quoted to “close medical supervision of the workers, combined with improved methods of work and the substitution of mechanical processes wherever possible.”

At the beginning of 1918 there were at the filling factories 15 whole-time and 28 part-time medical officers, responsible to their own Boards of Management, but with their duties, appointments, and salaries sanctioned by the Welfare and Health Section. This form of dual control was said to have caused little, if any, difficulty in practice. The factory doctors were “some of ordinary, some of expert qualifica-

1 L.R.W. 218/50.
2 Factory Inspectors' Report for 1917, p. 23.
3 Hist. Rec./H/346/2.
tions,”¹ and were in close touch with the headquarters staff, the members of which maintained close contact with current difficulties by periodical spells of residence and work at the factories, and secured expert laboratory assistance when needed in diagnosis. It was impressed upon the medical officers of filling factories that their work was essentially preventive, and that they were not required to undertake the care of “panel” ailments. Their duties were to inspect all workers on engagement and at regular intervals, whether ill or not; to report to the Ministry all illness (not only toxic jaundice) apparently due to T.N.T., and to introduce definite arrangements for preventive or curative treatment.² Special arrangements were authorised by the Director-General of Munitions Finance in March, 1917, for inpatient treatment at local hospitals (at a cost of 3s. and 4½s. per day), for persons suffering from toxic jaundice, and compensation was given on the scale of the Workmen’s Compensation Act, with the 25 per cent. war addition of August, 1917, together with a diet allowance of 1s. a day.³

Experts had not agreed even at the beginning of 1917 whether T.N.T. poisoning took place primarily through skin absorption or through inhalation. The one theory suggested primarily defensive clothing, the other good systems of ventilation, as a remedy. The less fumes and dust produced in work the less was, on either theory, the danger of poisoning. In the autumn of 1916, therefore, two small committees, representing the Supply Departments of the Ministry of Munitions and the Home Office, inquired in detail into the possibility of better ventilation and improved mechanical methods for T.N.T. work, and pressed them forward with much vigour and promptitude. Early in 1917 great improvements in both directions had already been made, both in the national and trade factories, despite the frequent changes in production required by changing demands for ammunition.⁴ A year later, although T.N.T. filling by hand had not disappeared, Dr. O’Donovan reported as follows:—

“A remarkable feature of T.N.T. work has been the rapid changes in processes which have come about. Melt filling, the method by which T.N.T. was melted in coppers and poured into shells by buckets or from spigots, has practically passed away. Hand stemming is gradually being superseded by horizontal and vertical filling machines, which convey the

¹ It was in practice impossible to confine their work within these limits. Thus at Hayes National Filling Factory, where the woman doctor with two assistants had a dispensary and a complete equipment of surgeries, each with a factory sister in attendance, the surgery visits from May, 1916, worked out as follows:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Per cent.</th>
<th>Per cent.</th>
<th>Per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1916</td>
<td>17.6</td>
<td>9</td>
<td>4.6</td>
</tr>
<tr>
<td>1917</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1918</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Occupational diseases from T.N.T., C.E. and Fulminate.

Accidents, cuts, bruises and explosives  12.2  12.8  9.0
"Panel" illnesses from headache, etc.  70.2  78.2  86.4

In the case of workers without medical cards "panel illnesses" might be treated at the surgery to save loss of time. Hist. Rec./R/1122. 3/34.

powder into the shell by means of an Archimedian screw. The small exploder bags, holding a few teaspoonfuls of T.N.T. powder, which were formerly filled by hand, are now filled by machinery, but have to be finished and tied up by manual labour. This, too, will be superseded by a machine filling T.N.T. without any hand contact into stiff cartridge containers, and the finished article will fall from the end of the machine. This remarkable and rapid progress is largely due to the readiness with which engineers have listened to the urgent representations of the T.N.T. Committee and the Medical Department, and shows the seriousness with which the problem of T.N.T. poisoning is appreciated by all departments of the Ministry concerned.¹

After the need for "clean" working, in a sense much more stringent than that of the ordinary danger building practice, was realised, workers had to be trained to wear the protective clothing designed for them, and workers and management had to learn precautions for avoiding contact with the T.N.T. This meant the adoption by the management of a very high standard of workshop "cleanliness," and the strict enforcement of discipline.

The following description by a welfare supervisor in a trade factory in the early stages of T.N.T. work records methods actually adopted by the unregulated worker, and indicates the need for special watchfulness:

"At the commencement of my work in June, 1916, we were still only beginning to be aware of T.N.T. dangers, and of the possibilities of averting them; and it was an uphill fight those first few months. Munitions were needed so terribly; the workers were all very closely linked up with soldiers at the front; they were known to be having rough times, and each worker was inclined to take the attitude that output only mattered, and conditions of output must be overlooked. The day for filling exploder bags by hand—a process in which the factory had early developed marked success—will probably never return. One feels one owes a tribute to these girls who kept to that work so valiantly.

"Their workshops were wooden huts, scattered about a big untidy field. Cloakroom accommodation was totally inadequate, and so far away that the workers were obliged to wear their coats in going to the workshops, particularly at night, and, of course, then had to hang them in the Powder Huts. Canteen arrangements were hopeless; at first the workers had had none. Food baskets had been brought into the shops; as meal time approached, there would be a gradual drifting away towards the boiler house with tea pots; and then when the tea was made the workers would wipe their hands on their skirts (overalls had not then been introduced), bring out their food from inside the T.N.T. boxes, which served as stools; the work-bench became the meal table, and the picnic

¹ Hist. Rec./R/346/39.
proceeded. There was as little formality about starting work again as in leaving off, and, as it was all piece-work, very little time was wasted on meals. The amount of work produced each day was marvellous. I saw several other factories where exploder bags were filled, but whereas elsewhere 500 to 600 was considered a good daily record, 1,000 to 1,200, and 1,300, was a normal output for our old hands, with earnings from 10s. to 13s. 6d. a day, at a time when the ordinary daily rate was 4s. 2d.; and the standard of work was always excellent. But health and welfare suffered proportionately. It was not possible to start any traditions; each day one took up the tussle anew—working before meals, wearing overalls, proper meal intervals and proper places for meals, as well as the ordinary rules for work in danger buildings—all the regulations were rather regarded as skittles, and it was part of the game to throw down as many as possible. The doctor (not resident nor whole-time), however, warded off any real tragedy, and bit by bit the workers accepted the rules of the game, so that playing became easier, though the game was never won.\footnote{Hist. Rec./R/346/41.}

This factory was admittedly exceptional. At another much larger factory, the same supervisor found, a few months later, that precautions were increasingly observed and that the workers (who had been interested in a recent scientific inquiry carried on in their works, as to the effects of T.N.T.) were not, as in the previous case, wholly callous to precautions.

The reports of the medical officers and the special medical welfare inspectors, however, up to the beginning of 1917, illustrate the difficulties of introducing "clean" working.\footnote{L.R.W. 218/14.} "I know very few munition girls who do not love to spill, splash, and otherwise distribute melted T.N.T. . . . The spigots constantly drip on to the floor, the collected amatol being removed by a worker, who kneels and scrapes the floor. A fair number of cases are still cleaned by knocking them against the side of a bin . . . girls employed on this work sit round low tables and scatter the chippings over the table and over each other . . . the weighing room is very dusty, and the benches covered with powder, and the dust so caused is removed from the smaller shells by inverting them and knocking them on the benches; this leaves a small lump of powder on the bench and cuts up the surface of the bench and renders it extremely difficult to clean." (January, 1917; a national factory.)

"Amatol mud on the benches and the floors. The girls leave the gloves in the powder when they go off duty. The benches are rather dusty; the floors encrusted; the machine is of a bad pattern and scatters dust far and wide." (September, November, December, 1916; a trade factory.)

"The process of filling grenades is incredibly dirty; T.N.T. mixture is spilt plentifully over the grenades and bench." (October, 1916; a trade factory.)
"Gloves soiled with T.N.T. and in a hopeless state of disrepair were used as a protection for T.N.T. workers." (November, 1916; a national factory.)

"The floors are deplorable, rough splintered wood, well sprinkled with T.N.T. grit; dry sweeping; the filling sheds are very dirty, benches and floors are uneven and covered with powder and pieces of amatol." (December, 1916; a national factory.)

Of one national factory in this group of reports it was, however, said (November, 1916): "Physiological cleanliness is carried out wherever possible; the floors are swept damp; the benches are covered with non-splintering linoleum, and are cleaned with a damp mop at very frequent intervals."

Constant efforts were made from Headquarters, always in consultation with the management, to impress this standard of cleanliness upon workers and their supervisors alike, and a very high level was reached by 1917 in the great majority of factories.¹

Welfare work in "medical" factories differed from that in the ordinary factory only in that it was more closely directed to the workers' health and was more directly subordinate to that of the factory doctor. Even questions such as clothing, feeding, transit, hours, recreation, must in factories of this type be considered with reference to the medical officer and danger building officer. On the other hand, it was particularly desirable to foster wholesome social activities, and especially outdoor games, such as hockey and football, among workers employed under the strict discipline and with the dangers involved in filling factories; and the welfare superintendents of the national factories took this vigorously in hand in conjunction with the workers.

The purely official side of welfare supervision in a National Filling Factory employing at one time 8,000 women, but which held on its pay-roll 23,000 different women in three years, was thus described in 1919²:

"A lady superintendent aided by an assistant was always on duty in each section of the factory. She assisted in the maintenance of discipline and enforcement of magazine regulations, helped and advised workers in difficulties and investigating grievances. She made arrangements for the transfer or discharge of workers, supervised the shifting houses and supply of necessary clothing, towels, etc., and the cleaning of shops and platforms. In addition she kept a card index of all the workers under her charge, on which was recorded their medical grade, time worked on C.E. or T.N.T., absence or unpunctuality, etc. She was also responsible for the distribution of milk and cocoa to workers on poisonous explosives and to all night workers."

With regard to the welfare inspection of these factories, the excerpts given above, if taken in connection with the standard of the T.N.T. regulations, illustrate some of the initial difficulties. A small expert

¹ Hist. Rec./K/346/35. ² Hist. Rec./R/1122. 3/34.
staff carried on the work from headquarters. The reports of the traveling officers, which dealt with many problems of occupational illness other than those due to T.N.T. work alone, were submitted to the chief medical officer for recommendations and then despatched to the trade firms or to the Supply Department concerned. The Welfare and Health Section was thus kept in touch with the constant changes in the manipulation of T.N.T. introduced by the changing requirements of successive Government Departments, while these "medical" welfare reports, often highly technical in character, were said to be "of special value from the aspect of preventive medicine."

III. Precautions for Lethal Gas Workers.

In preparing precautions for lethal gas workers, the Department had to some extent the advantage of earlier experience in dealing with the T.N.T. problem. It was at least not taken unprepared by illness resulting from an occupation believed to be harmless; for it was clear from the outset that lethal gas must involve dangers from which the operatives must be safeguarded. The problems to be faced were quite new, but at the outset the Trench Warfare Supply Department secured the services of Dr. F. Shufflebotham of Newcastle-under-Lyme, who had had a large experience of industrial diseases and the conditions of labour in dangerous processes.

(a) Special Character of the Work.

Special medical work was carried out by the medical branch of the Welfare Section, in conjunction with the Trench Warfare Supply Department which controlled factories where lethal and lachrymatory bodies, liquid fire and coloured flares were manufactured, as well as the stations in which cylinders, shells, bombs and grenades were filled with these various bodies. These factories and filling stations could be classified thus:

1. Chemical factories and filling stations, both controlled and national.
2. Controlled grenade filling stations.
3. The National Shell Filling Factories.

The actual manufacture of the chemical bodies used for lethal purposes was performed by men, the great majority of whom were either over military age or incapacitated for military service, while the filling was generally carried out by women and girls. The commonest dangers to which these men, women and girls were subjected

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1 Hist. Rec./R/346/39.
2 Later Dr. Shufflebotham was assisted by Capt. G. W. Midlmiss, M.B., R.A.M.C., and Sir G. H. Pollard, M.P., M.D., while for some months Mr. E. Dudley, of the Local Government Board and subsequently of the Ministry of Health, was attached to this branch.
were those of (1) poisoning by the lethal and lachrymatory bodies; (2) irritation of the skin, eyes and other exposed parts of the body caused by the handling either of the raw materials or the finished products, and (3) mechanical accidents. The latter, of course, occur in every branch of industry, but slight injuries, such as a bruise or a small cut, occurring to workpeople engaged in these factories might result in developments of the gravest kind, unless they secured prompt medical attention, on account of the poisonous character of the bodies handled or manufactured.

The section of munition workers employed in making the gas and other lethal bodies, and filling shells, cylinders, etc., were engaged unmistakably in the most dangerous processes known to either industry or medicine, and carried out their daily work with courage, cheerfulness and enthusiasm. In the face of the dangers involved the Department recorded with satisfaction that, though in some factories a large percentage of workers were "gassed" or affected by disease arising out of their employment, yet only seven fatal cases occurred in 1917, of which two were due to mechanical accidents and five to gas poisoning, and of these last cases one had already been gassed in France and one suffered already from organic disease. In 1918 up to the date of the Armistice, there were only seven fatal cases due to poisoning by the inhalation of poison gas or lethal fumes; and the number of non-fatal casualties was small considering the very dangerous character of the processes. Special regulations were drawn up by Dr. Shuflebotham from time to time to meet different problems as they arose, in order to diminish the risks to which the workers were exposed.

(b) Medical Officers and Welfare Arrangements.

A medical officer was attached to each of the factories and filling stations, attending thereat at stated times, with duties similar to those of the filling factory doctors. He determined the fitness of the applicant for the particular work; examined all employees every fortnight, noting the result in a register, examined and treated employees who were ill or injured as a consequence of their employment; and attended speedily on receiving summonses in cases of poisoning or injury, and arranged for their admission to local hospitals. He was also held responsible for the efficiency of the equipment of the ambulance station attached to each factory or filling station. Each officer had to make weekly as well as special reports to the Department upon his cases and in particular to advise as to any new aspects of poisoning by lethal bodies for which fresh precautions might be required. These medical officers, whilst attached for the above purposes to the various factories and filling stations, were in the direct employ of the Health and Welfare Department. In every instance they were men of the highest status alike as to qualifications and experience.

Fully equipped ambulance stations were provided at all the factories and filling stations. These stations were under the charge of fully trained nurses, who in a number of factories possessed
assistants, the number of the latter in some instances running as high as three. In the large factories where employees worked at night, a nurse was in constant attendance at the ambulance station.

Arrangements were made in each district where these factories and filling stations were situated for hospital accommodation for workpeople who sustained injuries or contracted illnesses arising out of their employment, with financial provision similar to that for T.N.T. workers.¹

The welfare arrangements of lethal gas factories and filling stations were brought into line with those of other departments of the Ministry. Latterly, those in association with the factories and filling stations where secret processes were carried on were in the sole charge of a special travelling welfare officer. The buildings in the factories and filling stations were so designed, the ventilation was so suited to the processes of manufacture, and the handling of raw materials and manufactured bodies was so reduced and protected, that the dangers of the various processes were reduced to a minimum. All employees actually engaged in making or filling lethal and lacrymatory substances were supplied by the contractors or agents with suitable overalls of an approved pattern; and, whenever the processes demanded it, they also wore helmets, respirators, gloves, goggles and clogs furnished by the contractors according to approved pattern. It was an offence to take food of any kind into the workshops; and before eating and quitting the factory for home, all employees were compelled to wash their hands. The overalls were doffed at each break in the work and left in a special room; strict injunctions existed against going outside of the shops in them, and the contractors were under obligation to wash them at least once a week. At many large factories bathrooms were provided. Messrooms and canteens were supplied except in cases where the workers preferred to go home to meals. The National Filling Factories specially excelled in the canteen arrangements made for their workers.²

(c) Notification of Illness and Provision for Compensation.

When the manufacture of poisonous gases and other lethal bodies was first contemplated, only the residuum of the male labour market could be obtained for this purpose. All the young and healthy men had entered the Army and Navy, while skilled workers were employed in other directions; and it was therefore necessary to recruit for the manufacture of these poisonous bodies working people from those suffering from organic disease or disability which prevented them from entering the Services, or had been the cause of their discharge, or from those over military age. Many men employed in these processes were subsequently found to be altogether unsuited for this particular

¹ See p. 75.
² Stringent regulations were made to impress upon workers the precautions necessary for safe working. In the case, e.g., of mustard gas (H.S.) work at the Hereford National Filling Factory, in 1918, the rules were to be read weekly to all employees. Workers were directed to report at once to the surgery any symptoms of ill effects from their work.
class of work. These men were gradually eliminated, and instructions were given to medical officers of factories that no worker suffering from certain forms of illness or organic disease should be employed on lethal gas work.

In poison gas factories, a scratch on the hand or like simple injury, if neglected, might induce a serious case of blood poisoning; and the inhalation of a small dose of poison gas, failing prompt remedial action, might result in perilous illness and even in death. It was therefore necessary even in cases of minor injuries, and in all gas poisoning cases, to secure prompt official notification, and in April, 1917, a series of regulations were issued which made such notification to the medical officer of the factory and to the Department compulsory upon all contractors and agents, in addition to the reports of accidents and poisoning required by the Home Office. The illnesses, thus to be notified, were set out as follows in the regulations:—Gassing; eczematous ulceration of the skin due to the handling of the material, inflammation of the eyes caused by irritating fumes, etc.; poisoning by lethal bodies used in the various processes (such as T.N.T.), and by lead, arsenic, phosphorus and dope; all cases of mechanical injury arising out of the employment.

Such notification was required in part on account of compensation claims, since, without a regular system of report and investigation, illnesses and deaths involving large claims against the contractors and the Government might occur without coming to the knowledge of the Ministry. Workmen's compensation for illness arising out of employment due to poisoning by gas or other lethal bodies was placed on the same footing as that for T.N.T. workers.

Among the cases of poisoning at the different factories and filling stations there was a wide field for medical research, and with the help of the medical officers such work was carried out. Exhaustive investigations were made into the pathology and treatment of many lethal bodies, with results greatly to the benefit, not only of the munition workers employed in these dangerous occupations, but also of soldiers gassed upon the battlefield.

IV. Other Medical Work.

In many other less specialised medical problems the Welfare and Health Section was called upon to give advice and to take action. The medical welfare officers were consulted in numerous cases of occupational illness, especially from factories where irritating or poisonous chemicals, such as tetryl, fulminate of mercury, or picric acid,\(^1\) were handled, and their reports were frequently submitted for expert advice. "Problems of oil rashes in engineering shops; of dermatitis due to caustic; of weight lifting, and other questions incidental to the employment of female munition workers; of the

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\(^1\) Cf. Memo. No. 8 of Health of Munition Workers Committee (Cd. 8214).
possibilities of poisoning by explosives, other than T.N.T.; of the maternity and other hospital accommodation in munition areas, were part of the routine of the work.”

Reference has already been made to the last of these questions, in relation to “extra-mural” welfare. Dentists of military age were assigned by the Dental Service Committee, on which the medical sub-section was represented, to take up work in crowded munition areas, to give part-time service to hospitals, and take on posts at munition factories. Almost all the National Filling Factories had by March, 1918, provided adequate dental services for all the workers (the dentist at Hereford National Filling Factory was pulling out 1,200 teeth per month at that date). Dental treatment was facilitated as far as possible in all national factories, but especially in those where dangerous work was carried on. Hostels were visited in cases of infection. The Welfare Section had from its establishment urged the provision of suitable first-aid treatment in factories. When this was made obligatory in a large proportion of the munition trades by the Home Office Welfare Order of October, 1917, the officers of the section refrained from intervening in its enforcement in trade factories, but in the national factories steps were taken in conjunction with the medical sub-section to investigate the most effective means of carrying out the order.

A special branch of the section’s medical work was the examination of workers claiming compensation for accident or injury on munition work. Doubtful cases were examined, if necessary in their own homes, and reported on to the Finance Department or to the Treasury Solicitor. In the case of an extensive factory explosion in the north, a medical officer spent a fortnight travelling up and down the Midlands and Wales, visiting the workers who had dispersed to their homes but had sent in written applications for compensation for the after-effects. By this means, the outstanding claims were quickly and satisfactorily dealt with. Many problems both of preventive and curative treatment—in connection especially with young workers or with the infirm, discharged soldier or medical reject—were presenting themselves to the section in the summer of 1918, when the most pressing questions of dangerous occupations for munition workers had been disposed of; but the close of the war left their further administrative treatment to other Departments.

V. Research Work.

On the expansion of the Welfare Section in 1917, a special branch was formed for scientific research in connection with problems of industrial health and welfare. In addition to utilising the pioneer investigations of the Health of Munition Workers Committee, the Department gained the services of several members of the Committee’s expert staff. Thus Dr. H. M. Vernon, of Oxford University, continued his investigations into the relation of working hours and output,\(^1\)

\(^{1}\) HIST. REC./R/346/39.

\(^{2}\) See p. 119 for an illustration of the administrative results.
initiated inquiries into the effect of working conditions on industrial accidents, and trained a staff of collaborators to continue such investigations. In addition to the physiological inquiries thus undertaken, it was felt that provision should be made for expert statistical treatment of the problems coming before the section, and a medico-statistical branch was formed, with a staff of three or four and a small laboratory, under Captain M. Greenwood, R.A.M.C. (Reader in medical statistics, University of London). This branch carried out a large amount of research work in co-operation with members of the administrative staff—a combination which, it was urged, kept research work from developing too much on speculative lines and administrative work from becoming too stereotyped. The following were the main subjects of inquiry:—

(a) Food Investigation.

When the laboratory was established in May, 1917, although the food position was serious and it was clearly essential to secure the adequate feeding of munition workers, there was no accurate knowledge as to the sort of food being consumed by munition workers and its adequacy according to scientific standards. A questionnaire was therefore drawn up and despatched to the managers of munitions hostels and canteens. "At first hostel and canteen managers were extremely sceptical as to the value of the inquiry and a good deal of tact was needed before the forms were filled in at all, while still more tact and patience had to be exercised before they were filled in accurately."¹ In the end, however, the inquiry fully justified itself. A report was prepared and published² giving exact particulars of the diets consumed by a larger sample of industrial workers than had ever been studied before with an analysis of their scientific value. "The hostel managers who had originally been sceptical found the advice of the Department so extremely helpful that there were times when it was found difficult to deal with the inquiries and requests for advice which came in." The results were admitted to be of much value when the Food Section of the Ministry was established in 1918. Further information was collected and analysed during this year, and extensive use was made by the Food Ministry of data collected in the subsection as well as of the expert assistance of the staff in determining the sufficiency of various diets and the probable effects of various restrictive measures. In the autumn of 1918 an important inquiry was begun into the food needs of munition workers by direct measurement. This was cut short by the Armistice, but the report threw light on the fundamental need for the consideration of food requirements when fixing a minimum wage for industrial workers.

It was claimed on behalf of the subsection that "the officers of the Ministry of Munitions had made a more substantial contribution to the study of applied dietetics than any other civilian Department or laboratory during the war."³

¹ Hist. Rec./R/346/39.
² Special Report No. 13 of Medical Research Committee.
(b) Wastage of Workers.

A second problem considered by the section was that of the "missing worker." Out of 100 women who join a factory, how many will be still at work after one, two, three or more months? What are the reasons for leaving? What is the effect of such influences as age and nature of work upon the problem? The research branch continued an inquiry into this matter, which had already been commenced under the auspices of the Health of Munition Workers Committee, and issued early in 1918 an exhaustive report on the Causes of Wastage of Labour in Munition Factories employing Women, dealing with the work of some 40,000 women, attention being paid to age, nature of work, incidence of sickness, etc. This report, apart from its intrinsic interest as a contribution to a problem which had long perplexed those concerned with the factory women, was of direct administrative value when the effects of a "cut" in the munitions programme (due to shortage of material) was under consideration in February and March, 1918.¹

(c) Other Inquiries.

Careful records were also kept of the extent and causes of lost time in national factories (e.g., as to whether it was greater among married or single women). The problem of accidents and their causation was studied statistically, and a report was issued in 1919, proving "that an important factor of accidents is personal susceptibility and that the rate can be diminished by a heedful elimination of unsuitable workers rendered possible by the system of ambulance records standardised by the Welfare and Health Section." A special inquiry was organised into the prevalence of tuberculosis among munition workers, and a report was published early in 1919 showing the direct connection between factory employment and the incidence of tuberculosis, and the importance of structural condition, especially ventilation, in this respect. A study was made of the influenza epidemic of the summer of 1918. Further, two of the women welfare officers in 1917 carried through an inquiry into the provision of seats for women in shell factories which, as has been said, to a great extent served as the basis of the Home Office Welfare Order on that subject in August, 1918.

In addition to the researches above noted, the subsection was able to assist other Departments during the war. The medico-statistical department of the Royal Air Force was organised by Captain Greenwood, and the subsection was frequently resorted to by

¹ In this case it justified a policy of laissez-faire. The "cut" and discharge of workers bore most heavily on the filling factories, in which the wastage was in any case 60 per cent. to 100 per cent. per annum; so that mere abstention from the engagement of fresh employees nearly satisfied the needs of a retrenchment in staff. L.R. 6037/9 & /13.
the staff of the Royal Air Force in connection with statistical matters, as well as by special committees of the Local Government Board and the Royal Society.¹

¹ The following papers were published by workers in the subsection wholly based upon the research work done therein:


In addition, one complete paper on *Metabolism in Industrial Work* (Capt. Greenwood, Mrs. Hodson, Dr. Tebb) was ready for press, while other papers were being prepared, in March, 1919. A special investigation was also made by Dr. Tebb into the atmospheric conditions of iron-ore mines in Cumberland, for the Sub-Committee of the industry presided over by the Controller of Iron-Ore.
CHAPTER V.

HOURS OF LABOUR IN MUNITION WORKS, 1914-1916.

I. The Position before the Establishment of the Ministry.

(a) Extent of Overtime Worked.

Even in the outbreak of complaints of bad time-keeping raised in the spring of 1915 by a section of the Press and by certain employers (chiefly in the shipbuilding trades), all reasonable critics allowed that the great majority of the munition workers, except in certain limited areas, were doing all, and almost more than all, that could be expected of them. The White Paper of April, 1915, dealing with time-keeping in the shipbuilding trades, with their special difficulties for regular and prolonged work, showed by its statistics, in the midst of its dammatory conclusions, that a definite proportion of men in these trades were doing a 90-hours week. The Secretary to the Admiralty, in his speech on the naval estimates in February, specially acknowledged the response of all the dockyard workers, "from the Admiral Superintendent to the yard-boy," under the strain of continuous nightshifts, overtime and Sunday work since the war began: "The Board of Admiralty had reason to be more than satisfied with the way the royal yards had answered the call of duty." Mr. Asquith at Newcastle on 20 April said that the employees of the armament firms were working an average of 67 and 69 hours a week, and the labour Members of Parliament and trade union officials warmly endorsed this, quoting many instances of long hours—"70, 80, up to 100 per week"—worked by men known to them, without a protest.

From the end of August, 1914, overtime on munitions work became almost universal (although it coincided in the autumn of this year with some unemployment among engineers and shipbuilders). Some applications subsequently brought to the notice of the Department, from firms desiring the renewal of the Emergency Orders for overtime previously granted by the Home Office, may be quoted as detailed illustrations of the amount of weekly work actually sanctioned for women and young people in the first period of the war.

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1 Report and Statistics on Bad Time kept in Shipbuilding, Munitions and Transport Areas (1 May, 1915). See Vol. IV., Part II., Chapter II.
2 Parliamentary Debates (1915), H. of C., LXIX. 1022.
3 Parliamentary Debates (1915), H. of C., LXXI. 297, 2298; (Cf. contemporary "Journals" of the Boilermakers, A.S.E. and Ironfounders).
4 Minutes of Hours of Labour Committee.
(1) A very large Sheffield firm, in May, 1916, asked to be allowed to continue, under the following scheme, the employment of boys (aged 14 and over), and of women and girls in their works:

**Boys in gun forge. Women and young people in shell works.**

**Day Shifts.**

Monday to Friday and 6 a.m. to 6 p.m. 6 a.m. to 5 p.m. (less \(\frac{1}{2}\) hour for meals).

Sunday 6 a.m. to 12 noon 6 a.m. to 12 noon (less \(\frac{1}{2}\) hour).

Net weekly total = 68\(\frac{1}{2}\) hours 62\(\frac{1}{2}\) hours.

**Night Shifts (6 per week).**

6 p.m. to 6 a.m. 5 p.m. to 6 a.m. (less \(\frac{1}{2}\) hours for meals).

Net weekly total = 63 hours 69 hours.

The week-end breaks at the weekly change of shifts were for 24 and 30 hours on alternate weeks.

These hours had been allowed since June, 1915, and had been worked almost to the full. The firm desired to continue thus till the end of the war. According to the reports of Factory Inspectors in September, 1915, and February, 1916, these hours had no apparent ill effects on the boys, who were said, on the whole, to come to work more regularly than the men.¹

(2) A London firm of rifle makers proposed, in July, 1916, the continuance for boys over 14 of hours of work averaging 69 and 78 per week alternately. Their men could not work without boys; the demand for rifles was urgent; and the cessation of Saturday afternoon and Sunday work (urged by the Hours of Labour Committee) would reduce their weekly output of rifles from 2,000 to 1,750.²

(3) In January, 1916, a Manchester munitions firm reported on their hours of work as follows, explaining that the second winter's scheme was more successful than the first³:

**Hours Worked during Winter 1914-15.**

- Monday to Friday 6 a.m. to 10 p.m.
- Saturday 6 a.m. to 5 p.m.
- Sunday Nil.

Total = 91 hours per week (including meal times).

**Hours Worked during Winter 1915-16.**

<table>
<thead>
<tr>
<th>First Week</th>
<th>Second Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday to Friday 6 a.m. to 8 p.m. 6 a.m. to 8 p.m.</td>
<td></td>
</tr>
<tr>
<td>Saturday 6 a.m. to 5.30 p.m. 6 a.m. to 12 noon Nil.</td>
<td></td>
</tr>
<tr>
<td>Sunday 6 a.m. to 5.30 p.m. Nil.</td>
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</tbody>
</table>

Total (including meal times) = 93 hours 76 hours.

(4) In a departmental report in October, 1916, on hours of work at Woolwich Arsenal since the outbreak of the war, the following statements were made:

"Men have been employed on the shift system on 27 days out of 28."

“Women, girls, and boys have worked on 13 (sometimes 13½) days out of 14.”

“Women have been frequently employed on seven consecutive night shifts,—normally of 12 hours.”

“Men on overtime have sometimes worked up to 96 hours per week and boys up to 75.”

When, as was often the case, long daily or nightly journeys in overcrowded trains and trams were added to work in the factory, the munition worker’s day spread through much the greater part of the 24 hours, and, as the Health of Munition Workers Committee urged early in 1916, the fatigue involved became excessive. The provision of housing and improved transit for munition workers after the spring of 1916 diminished, but in no way removed, this difficulty. The long hours specially affected the foremen and skilled workers, such as toolsetters and gaugemakers, whose scarcity made it impossible for them to be spared. “At one time cases of such men working as much as 90 hours per week were common; more recently there has been a tendency to reduce hours, but even so, weekly totals of 70 to 80 hours are still frequent,” reported the Health of Munition Workers Committee in their fifth memorandum in January, 1916. Even where the daily hours were not excessive, the workers (as in the cases quoted in detail above) frequently had no weekly rest. In many works the Sunday shift was comparatively short. But in many “seven day labour was the rule.” Thus, at the works of Messrs. Vickers, Barrow, in October, 1915, 2,500 girls were working an eight hour shift for a seven day week, with one Sunday off in four, while the men employed did a 12 hours’ shift on the same basis.

(b) The Pre-War Movement for a Shorter Working Day.

A large number of similar illustrations of extremely long working weeks might be given. In gauging their significance it must be recalled that there had, for at least 20 years, been a continuous agitation in the trade union world for the reduction of hours of work, and a fairly continuous tendency towards their actual reduction, sometimes as a result of strikes, more often by negotiation. Many employers had found the economy of the shorter working day, especially in the skilled trades, and it was realised increasingly that continuous working of overtime in trades so laborious as some of those connected with engineering and shipbuilding was extravagant from the point of view both of capital and labour. The Factory Inspectors’ reports had for a number of years recorded with gratification the movement towards

1 Minutes of Hours of Labour Committee, C.F. 1947/13. Woolwich Arsenal had a normal 48 hour week since 1894.
3 M.W. 60197/4.
4 C.E. 1013/13.
5 The “Agreement” of 1907 between the Engineering Employers’ Federation and the principal engineering trade unions recommended that “not more than 32 hours overtime should be worked in any four weeks.”
the reduction of the normal working week in certain industries. The motion for an eight hours day had for many years appeared annually at the Trade Union Congress, and it had been the objective of many workers in the engineering trades, whose members almost uniformly worked long hours during the first years of the war. It is true that high rates of pay for overtime, night and Sunday work, compensated, or more than compensated, in cash for the extra time worked, and that overtime work was on this account often regarded as a privilege to be reserved, e.g., for good time-keepers. The extra payments, however, could not compensate for the sacrifice of strength, health, and comfort by a large proportion of the workers, and as the pressure of demand for munitions diminished there was a return, for some months before the Armistice, of the movement for a shorter working week.

(c) The Regulation of Overtime.

Official cognisance of overtime extended, under the Factory and Workshop Act of 1901, only to protected persons, i.e., to women, and to boys and girls under 18. The maximum number of hours worked by these persons might not normally exceed 55\(\frac{1}{4}\) hours per week in textile and 60 hours in non-textile factories, excluding meal times.

Overtime might be worked by women on not more than three days a week for not more than thirty days in the year, up to the limits of a 12-hour working day in certain specified non-textile factories, as against 10\(\frac{1}{2}\) hours daily maximum normally permitted.

Sunday work was forbidden for any woman, young person or child, except in a very few workplaces such as creameries, and night work was also forbidden to them, although boys over 14 might under

\(^1\) Since November, 1913, the Federation of Engineering and Shipbuilding Trades of the United Kingdom, then representing 31 societies and 600,000 members, had carried on negotiations with the Engineering Employers' Federation on the subject of a 48-hours' week (without reduction of wages) and had endeavoured unsuccessfully to do the same with the Shipbuilding Employers' Federation. The latter had refused categorically to discuss the subject with the unions (in June, 1914); the former also, after two conferences with the men and after consulting its local associations, replied to the Federation of Trades that they could not agree to any reduction in the working day, though they were open to negotiations on the subject. This reply was received a few days before the outbreak of war, and a conference of delegates from the trades concerned at Liverpool on 7 August, 1914, agreed that the question must be suspended till the termination of the war, though it authorised its representatives to continue negotiations on the subject in the future with the Engineering and Shipbuilding Employers' Federations. The question of the 48-hour week had, however, by this time been discussed in the district organisation of every trade concerned; and it was beginning to be accepted by the rank and file, as well as by their leaders, as an end to be attained within a reasonable length of time. (Annual Report of Federation of Engineering and Shipbuilding Trades, 1915.) The arguments in favour of the movement were summarised in 1914 by Mr. Brownlie, Chairman of the Executive Committee of the A.S.E., in a pamphlet entitled, "The Eight Hours Day."
special conditions be employed at night in blast-furnaces, iron mills, paper mills, letterpress printing and glass works, and boys over 16 might, by special order, be so employed in any non-textile factory or workshop in which continuous work was required.¹

These were the statutory limits of work under the normal conditions of peace. If, however, the maximum output was to be secured from the inadequate amount of machinery and adult male labour in readiness for the munitions trades in August, 1914, Sunday work, overtime, night work, had all to be made permissible for protected persons, since the efficient work of the men concerned in almost all cases involved their co-operation. This became an increasing necessity as the dilution of male labour progressed.

To meet this urgent need, extensive use was made, during the first months of the war, of Section 150 of the Factory and Workshop Act of 1901, by which the Secretary of State has power, “in case of any public emergency, to exempt from the Act, by Order, to the extent and during the period named by him, any factory or workshop in respect of work done on behalf of the Crown.”

This power was reinforced on 10 June, 1915, by Regulation 6A under the Defence of the Realm Act, which extended the power of the Secretary of State under Section 150 to “any factory or workshop in which the Secretary of State is satisfied that by reason of the loss of men through enlistment or transference to Government service, or of other circumstances arising out of the present war, exemption is necessary to secure the efficient carrying on of work in the national interests.”

The Factory Inspectors’ Annual Reports for 1914 and 1915 described the procedure with regard to application for exemption under these powers. In the earliest stage of the war when a number of trades were affected by the sudden demand for war material, “big guns to boot nails, blankets to tape, motor wagons to cigarettes,” while at the same time the quantity of unemployment and under-employment was considerable, short exemption orders were given for one month at a time, “allowing two hours overtime, but, save in exceptional cases, no extra hours on Saturday and no Sunday employment,” and letters were sent to contractors urging them to obtain extra hands and plant. After two or three months, however, as the supply of some forms of labour grew short and the demand for equipment of every kind became urgent, exemption orders were given more freely. In the first six months of the war special orders were given to 151 firms engaged on munitions in the narrow sense—explosives, ammunition, shells, mines, grenades, ordnance, aircraft, and to nearly 200 other firms in the shipbuilding, electrical and metal trades. With regard to these, Mr. Bellhouse, H.M. Superintendent Inspector of Factories, wrote, “it had to be recognised at once that latitude on a very wide scale must be permitted. Orders were granted allowing employment on day and night shifts, and also extended overtime both on

¹ Factory and Workshop Act (1901), Sections 49, 34, 23ff, 54 and 55.
weekdays and on Saturdays and Sundays, and the permission thus granted extended to boys of 14 years of age and upwards as well as to women and girls over 16.' After some months' experience the situation was reviewed and a general order was issued which covered the great majority of the smaller firms, and most of those where metal equipment and accessories, electrical apparatus and transport wagons and fittings were made, leaving for separate consideration the bigger firms and others with exceptional conditions.

The General Exemption Order for Munition Work, 1915, provided four schemes for the employment of protected persons by which:

(a) boys over sixteen might work up to a maximum of 67½ hours a week, with the provision that the period of employment should not exceed fifteen hours on any day (inclusive of overtime and meal times), and this only when overtime was worked not more than three times a week;

(b) women, girls over sixteen, and boys over fourteen, might work up to 65 hours a week, with a maximum of fourteen hours in any one day, while in certain processes of the manufacture of guns, ammunition, etc., women might work up to 67½ hours per week;

(c) three shifts of eight hours might be worked during the twenty-four hours by women and girls over sixteen and boys over fourteen, with an interval of at least sixteen hours between shifts for each worker;

(d) day and night shifts of twelve hours each were sanctioned, subject to certain conditions, such as that no girls under eighteen should be employed on night shifts and boys under sixteen only with the consent of the Superintending Inspector of Factories, and that the working of overtime "should not be made a condition of employment for any woman or young person."

Many special exemption orders were also issued, especially for the large munition firms.

Each engineering factory as it engaged on munition work and got its contract applied "almost automatically" for an overtime order. The Factory Inspectors' Reports of 1914 and 1915 recorded increasing doubts on the part of the employers as to the efficacy of Sunday labour and overtime work. As a whole, however, no widespread ill results were reported at the time, partly as a result of patriotic enthusiasm which checked fatigue, partly on account of the higher earnings and standard of living reached by a large proportion of the workers. "The general opinion seems to be," wrote the Chief Inspector in his annual report issued in May, 1916, "that reasonable overtime does yield increased output, though the increase is not in full proportion to the extra hours worked."

2 Cd. 8276 of 916.
“Whatever may be the future effects,” it was stated in the Factory Inspectors’ Report for 1914, “there is at present no sign that workers have been injuriously affected. There can be little doubt that the knowledge that they were taking an active share in the struggle in which the country is engaged and the feeling that they were thus ‘doing their bit’ has enabled workers to carry on under conditions that in normal times would be insupportable. Employers, too, in almost every case, have used their overtime in a restrained and reasonable way.” The women inspectors urged the necessity of constant vigilance as to the effect of long hours of work on young girls and boys, if not on the women, employed under war conditions. But the experience of the early years of the war provided no data for wholesale condemnation of carefully regulated overtime work, undertaken as an emergency measure.

II. The Position after the Establishment of the Ministry.

(a) Arrangement between the Ministry of Munitions and the Home Office.

During the first year of the war, the regulation of hours of labour, at least for “protected persons,” was wholly in the hands of the Home Office, which endeavoured with the utmost care to balance the nation’s need for munitions with the workers’ need for rest. From July, 1915, however, the engineering establishments engaged on munitions successively became controlled by the Ministry of Munitions, and it was a question whether the regulation of hours of work should be added by the Ministry to the other limitations which it undertook to enforce on capital and labour.

In August, 1915, Mr. Wolff, then head of the General Labour Section in the Secretariat of the Ministry, explained the arrangement made between his Department and the Home Office as follows:

“The Home Office refers to the Ministry applications from firms contracting for us and for the War Office (other than the Quartermaster-General’s Department) for orders relaxing the Factory Acts. The Home Office supplies a report on the circumstances of the workers, the healthiness of the surroundings and type of work. After obtaining a report as to the urgency of the work, we refer to the Labour Exchange for a report as to whether there is enough labour available in the neighbourhood to make the working of the proposed extended hours necessary. If there is not and the work is urgent, we advise the grant, or the extension of an order. In the case of controlled establishments it is necessary to ascertain whether the firm is or is not accepting war munitions volunteers. If this assistance is not accepted the order is either refused or granted for a very limited period.”

1 Cd. 8051 of 1915. Cd. 8276 of 1916.
2 Weekly Sectional Reports, August, 1915.
Executive power with regard to hours of labour thus remained in the hands of the Factory Department of the Home Office, and the Ministry of Munitions, in the first months after its establishment, intervened very little in their control. The pressure of demand for certain forms of munitions was so intense that the supply sections of the Ministry could hardly contemplate shortening the number of working hours available for their production.\(^1\)

At intervals during this period the Home Office drew the attention of the Department to the need for effective co-operation in regard to hours of work between their respective officials. Thus, on 22 September, a letter was sent from the Home Office to the Ministry of Munitions enclosing a copy of a report from one of H.M. Factory Inspectors, that in consequence of an urgent order for trench bombs, 12 women had been employed by a firm continuously from 8 a.m. on 30 August to 5.50 p.m. the following day, with only a few intervals, the longest of which was two hours, and representing that “it should be impressed on the officers of the Department that such hours as were worked in this case must inevitably reduce the productive capacity of the workers and that nothing could justify them except a situation in which the immediate completion of a particular order was a matter of far greater importance that a continuous supply of war material.”\(^2\)

To this the Ministry of Munitions replied that its officers had been instructed to keep in touch as far as possible with the Home Office inspectors.

On 8 December the Home Office again wrote to call attention to the fact that officials of the Ministry of Munitions had directed firms to alter their hours, in contravention of the Factory Acts.

“The Secretary of State would be glad if the Minister of Munitions would at once take steps, by the issue of further instructions or otherwise, to prevent a repetition of the action complained of. The Ministry will, of course, understand that he does not take any exception to responsible officials of the Minister of Munitions giving instructions to firms to prolong hours of work in a case of vital urgency where there is no time to consult the District Inspector of Factories beforehand, but in such cases the Inspector or the Home Office should be informed immediately of what has been done.

“The Secretary of State is informed that in consequence of what has occurred an impression already exists in certain quarters that the authority of the Home Office in regard to the enforcement and administration of the Factory Acts has been superseded.”\(^3\)

These representations pointed to the need of some system of co-ordinated action such as that introduced early in 1916.

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\(^1\) Thus, on 17 September, 1915, the Machine Tool Committee circularised the firms with which it dealt, asking them if, in view of the urgent necessity of increasing the supply of machine tools, they were working on Saturday afternoons and Sundays, and if not, why not? This circular later caused some natural perplexity to those responsible for the Ministry’s later policy with regard to Sunday work. (M.W. 60197/4).

\(^2\) M.W. 49529.

\(^3\) M.W. 49529/2.
(b) Growing Criticism of Sunday Labour and Overtime Work.

During the autumn of 1915, the interest of other persons, besides the producers themselves and the Government Departments concerned in the supply of munitions, began to be directed towards the limitation of hours of labour.

In September, a report on Fatigue from the Economic Standpoint was presented to the British Association, and gave the results of a number of valuable investigations on conditions of factory hygiene, in connection with industrial fatigue and accidents. The report was suggestive and stimulating, if (by its own admission) not very conclusive, and it drew a considerable amount of public attention to the subject. In the same month, the Ministry took one of the most important steps in its policy of utilising the service of experts, by appointing, with the concurrence of the Home Secretary, the Health of Munition Workers Committee, to which reference has already been repeatedly made.\(^1\) The need for expert advice on questions of industrial fatigue and hours of labour which the committee was primarily called on to consider, was brought home to the Department by the great expansion of munition work for which it was responsible in the latter months of 1915. The Ministry of Munitions was brought into touch with the industrial needs of a constantly increasing number of women and young persons, for whom even the limited amount of overtime legally permissible was only doubtfully expedient. Many men also, drawn into heavy munition work from other occupations or recalled to the factories in spite of advanced years, obviously needed some protection against overwork if their efficiency was to be maintained, although the desire to "back up the men in the trenches" and the satisfaction of high earnings had so far prevented any general demand for a reduction of overtime.

The Admiralty had already taken action with regard to Sunday work. In the previous April, an official letter had been sent to the home dockyards and contractors, ordering the discontinuance of Sunday labour on Admiralty shipbuilding and engineering work, except in cases of extreme urgency, since "recent experience seemed to show that over a long period more work would be done without Sunday labour than with it." In July the Admiralty sent out a further letter to the same contractors, stating that "systematic Sunday labour is to be entirely discontinued as far as hull work is concerned, though urgent fleet repairs and items employing only a small number of workmen may be permitted." A protest received from an important firm, which complained of much dissatisfaction among their workpeople at Barrow owing to the discontinuance of Sunday labour and loss of earnings, led the Admiralty on 5 October to write to the Ministry of Munitions, explaining their desire to put a complete stop to Sunday labour, and drawing attention to their difficulties in enforcing this in face of its constant use by the Ministry of Munitions and the War Office. Some uniform policy, they urged, was desirable, and, if required, they would be pleased to place at the

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\(^1\) See p. 1 for the composition of this Committee.
disposal of the Minister of Munitions the experience in the matter gained on Admiralty work, experience which had led the Admiralty to decide, "after careful and repeated consideration," to stop Sunday labour.¹

This communication coincided with a letter to Dr. Addison from the chairman of the Health of Munition Workers Committee,² to the effect that after three weeks' work their inquiries already showed both the drawbacks of Sunday labour and the realisation of these drawbacks equally by employers and employed. The trade union officials who had been consulted were clearly of opinion that the men were beginning to get "fed up," nervous and irritable. Could not the Minister of Munitions, it was asked, take some definite restrictive action on behalf of controlled establishments, since an isolated employer could not afford to take an independent line?

In the following month (November, 1915) the Health of Munition Workers Committee presented their first formal report,³ explaining that they felt impelled thus to forestall a report on the other points of their terms of reference on account of the urgency for action with regard to Sunday labour. The great majority of employers whom they had approached were, they declared, unfavourable to work on Sundays on administrative, economic, religious, and social grounds. Supervision on Sundays was difficult to arrange and imposed a severe strain on the foreman. Yet deputies were not easy to obtain; the double pay for Sunday work made it expensive and often led to bad time-keeping and slackness—"Six days' output for seven days' work on eight days' pay," according to one foreman's formula⁴—and on all grounds a weekly rest was wholesome for the worker. Although, however, "employers generally were opposed to Sunday work, it had been widely adopted

(a) on account of the heavy demands for output, or

(b) because employers had been forced into it by a desire of their workpeople to obtain the increased pay."

The Committee, as a result of evidence received, urged strongly that Sunday work should in future be confined to emergencies and cases of real necessity.

In conclusion, the Committee emphasised their conviction "that some action must be taken in regard to continuous labour and excessive hours of work if it were desired to secure and maintain, over a long period, the maximum output. To secure any large measure of reform it might be necessary to impose certain restrictions on all controlled establishments, since competition and other causes frequently made it difficult for individual employers to act independently of one another."

² M.W. 60197/5.
³ Memorandum No. 1, Sunday Labour.
⁴ Memorandum No. 7, Industrial Fatigue, p. 7.
(c) Issue of a Departmental Circular (L. 18) on Sunday Work.

As a result of the statements in this report, which was considered at a meeting of heads of departments on 28 October, 1915, a circular (L.18) was sent by the Ministry to controlled establishments, quoting the conclusions of the Health of Munition Workers Committee, and stating that "the Minister is of opinion that it is necessary, in the interests both of the workers and of production, that a weekly rest period—preferably Sunday—should be secured to all workers," and that the working of a moderate amount of overtime during the week was preferable to a seven days' working week. Controlled establishments were asked to report immediately on the possibility of discontinuing Sunday labour, and to indicate the possible effect upon output of such discontinuance. The Minister would, it was stated, when desired, endeavour to arrange, in conjunction with the Labour Exchanges, for the supply of voluntary week-end labour to firms discontinuing Sunday work among their own employees, and would undertake to obtain prompt sanction from the Home Office for emergency Sunday work by women and young people, when such work or resumption of work was really necessary. The circular concluded by indicating the possibility of compulsory limitation of all Sunday work under Section 4 (5) of the Munitions of War Act, in so far as such limitation was not carried out voluntarily.

Some 200 replies to this circular were received, many of them acknowledgments only, though seven firms wrote that they intended to give up Sunday labour as a result of the suggestions made.

III. Formation of an Hours of Labour Committee.

(a) The Sunday Labour Committee.

To deal with these replies, and with applications for the supply of week-end labour or for the sanction by the Home Office of emergency Sunday work, a small interdepartmental committee was formed. In January, 1916, this Committee consisted of Mr. Wolff (Chairman), representing the Secretariat; Mr. R. R. Bannatyne, of the Home Office; Mr. Lee Murray, Sir Maurice Levy, Mr. B. S. Rowntree, who represented respectively the Supply Departments of the Ministry at Armament Buildings and the newly formed sections in the Secretariat dealing with the time-keeping and welfare of munition workers.

1 M.W. 60197.
2 The Admiralty, in continuance of its previous policy, concurred in the issue of this circular to firms engaged on Admiralty work, but insisted that it should retain "complete and independent discretion in regard to Sunday labour and overtime work," since emergencies in work of the Admiralty type often made it essential for the authorities on the spot to make arrangements as to extra work. Firms engaged in Admiralty work were accordingly instructed to apply to the Admiralty for sanction to resume Sunday labour in any case when it had been discontinued. (M.W. 60197/5.)
3 M.W. 60197/3.
4 M.W. 60197/5.
Within the next six months, representatives of the Admiralty, the Explosives supply department of the Ministry, the Dilution Section, the National Projectile Factories, and the section which dealt with week-end relief labour were added, and were joined later by other representatives of the supply departments, in order to co-ordinate the policy of those interested from different standpoints in the hours of work and the output of munition workers. Departmental office instructions\(^1\) were sent out in February, in order to check independent action, such as that previously complained of by the Home Office, with regard to sanctions of overtime issuing from the Ministry.

"The Home Office have requested that instructions shall not be given by any officer of the Ministry to any firm to exceed the hours of labour permitted by the Factory Acts without previous consultation with the local Factory Inspector. In cases of vital importance, where such previous consultation is absolutely impossible, a strictly temporary instruction may be given, provided the matter is at once reported to the Factory Inspector. All questions relating to hours of labour and conditions of employment are dealt with in the Secretariat; and for this purpose a small committee . . . has been set up to consider applications for exemption from the provisions of the Factory Act."

Questions of this nature arising in other departments of the Ministry should, concluded this memorandum, be referred to Mr. Wolff, the Chairman of this committee. With co-ordination thus facilitated between the Home Office, which administered the Special Orders under which the hours permitted by the Factory Acts could be exceeded, and the different departments of the Ministry, it became possible for the Labour Department to attempt to formulate a policy about the hours of labour of munition workers as a whole. When, in June, 1916, the original committee formed to deal with the Sunday labour circular of the previous December decided to change its name to that of the "Hours of Labour Committee," it had already for some months been dealing with many questions about the reduction of overtime, the duration of shifts and spells of work, and the conditions under which night work should be carried on, in addition to those of its original terms of reference.

\(b\) PROCEDURE OF THE COMMITTEE.

As a basis for action, a questionnaire (L.31a) was, in January, 1916, and subsequently, sent to all munition works as they became controlled, asking for detailed information as to the extent of Sunday labour, the working hours, the arrangement of shifts, and the meal intervals in each firm's works. This was supplemented by a further series of questions as to overtime, short time, and Sunday work included in the comprehensive schedule (L.31) which was sent monthly by the Labour Department to all controlled establishments.

\(^1\) Office Memorandum (Whitehall Gardens) No. 39.
The replies to these questions were not always very complete, nor were they wholly accurate, since certain firms misunderstood the wording of the question as to overtime in its original form, and sent in returns giving the number of hours paid for, e.g., at "time and a half." On the whole, however, they supplied a valuable body of statistics as to the amount of time spent in the production of munitions in the country.

Supplementary questionnaires were issued from time to time, to be filled in either by firms direct, with information on special points, such as the amount of productive work as distinguished from the inevitable repairs to machinery done on Sundays, or by the local investigation officers, who were appointed by the Labour Regulation Department at the end of 1916.¹

Further information was supplied by the Welfare and Dilution Sections in the course of their work. The Home Office drew the attention of the Department to cases in which "protected persons" appeared to be working too long hours in munition factories; while the Hours of Labour Section supplied the Home Office with monthly lists, based on the "L.31" returns, of cases when "protected persons" were working on Sundays, in order that inquiries might be made, when necessary, by the Factory Inspectors' Department. Excessive hours of labour shown by such reports and by the monthly returns were frequently curtailed after correspondence between the Department and the firm concerned. The Home Office also referred to the Joint Hours of Labour Committee applications from individual munition firms for special orders or for the renewal of special orders giving leave for overtime and Sunday work, when it appeared possible that such orders might be justified by urgent demand for the firm's output. These applications were considered, after reference to the supply departments for which the firms concerned were working. Sometimes a special report as to conditions of work was asked for from the district Factory Inspector, or a representative of the firm was invited to attend before the Committee, and only after such consideration was the Home Office recommended to sanction or refuse the firm's application. Thus the Hours of Labour Committee did not attempt to use fresh compulsory powers on behalf of the Ministry, although, under Section 6 of the Munitions of War (Amendment) Act, 1916, the Department possessed such powers. It relied on persuasion and negotiation, backed by the coercive powers administered by the Home Office under the Factory Acts. The existence of a representative committee of this type provided the Home Office with a rapid means of ascertaining the extent to which the legal limits of working hours, defined for "protected persons," after decades of legislation, should or should not be enforced in the face of the demand for munitions.

(c) Problems before the Committee.

The Ministry of Munitions was faced in the spring of 1916 by the very difficult problem of adjusting hours of labour in the interests of efficiency, and, if possible, of diminishing hours of work without

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¹ See Chap. VII.
diminishing output. The whole efforts of the munition works of the country were being concentrated on preparations for the offensive of 1916, and on its support after this had been begun. The urgency of these needs were quoted in support of the policy of dilution, a policy which was sometimes said by its opponents to be clearly unnecessary if it were possible to risk a loss of output by shortening hours of labour.

The pressing need for output, especially of heavy guns and large shells, was urged as the ground for the limitation of holidays at the New Year and Easter and for their postponement at Whitsuntide, in August, and at the dates of all the traditional summer "wakes" and "weeks of factory operatives." In addressing trade union representatives on this subject at the end of May, Mr. Lloyd George said:

"The French workmen have turned out every day a sufficient quantity of shot and shell to fill the chasm of the artillery at the front. Every day their guns are emptied by the evening and the French workmen fill them by the morning. They are turning out every day the amount consumed by the gunners. Any moment that may be the experience of our soldiers. In a few months I will guarantee to tell you whether we can afford a few days' holiday. We cannot now. We simply cannot. We want to pile up the ammunition day by day until our soldiers are in such a position that they need not spare shells at the expense of life."

A few days earlier he had addressed a gathering of employers to the same effect. These and other more formal utterances indicated the tension at which both labour and capital were called on to produce munitions, at least until the autumn of 1916. It was on account of this tension that it was impossible for the Ministry to adopt a consistent line of action with regard to the hours worked by munition makers. On the one side, the experts on the Health of Munition Workers Committee urged the necessity of diminishing Sunday labour and overtime; on the other, manufacturers and the Supply Departments of the Ministry, in the face of the pressing need of increased output, insisted on the importance of utilising as many "machine hours" as possible. The Hours of Labour Committee had as far as possible to reconcile these two points of view. They were indeed fully reconcilable, on the principle theoretically adopted by the committee from March, 1916, that, other things being equal, shortened hours of work and adequate rest periods produce in the long run greater efficiency in the worker and therefore no loss of output. It was not, however, always easy to convince those responsible for the supply of munitions (as the history of Woolwich and of the National Projectile Factories in 1916 showed) of the truth of this in time of war. Owing to this pressure of demand, proposals made early in the year by the Home Office for the reduction of the hours of work permissible to protected persons under the general Order of 1915, did not take effect until October, 1916, and even then constant exceptions had to be made, in succession, for the needs of special trades, such as the makers of machine tools, of heavy guns,
of aeroplanes; and in the case of establishments whose output was held to be essential, such as Woolwich Arsenal, where work was for many months carried on in excess of the limitations of the Factory Acts and unsanctioned by a special order from the Home Office. If the demands of supply made the curtailment of work difficult, the attitude of employers and of workpeople was often not helpful in this respect. The employers with whom the Ministry of Munitions and the Home Office corresponded were, indeed, frequently opposed to Sunday labour on principle, and pointed out to the Ministry that they had only adopted it as a war necessity, or as the result of pressure from the Supply Departments for the rapid fulfilment of contracts. The burden of such work often fell even more heavily on the staff than on the workpeople. Yet having begun Sunday work on grounds of emergency, they found it hard not to continue it as a matter of routine, partly because of the exigencies of completing contracts, partly because of difficulties, anticipated or actual, with workpeople over wages. It was (as Messrs. Firth, of Sheffield, pointed out in May, 1916) very difficult for any one firm to take isolated action on this point, as in other matters which concerned labour, since workmen, dissatisfied with the stoppage of their Sunday work and wages, might, despite the leaving certificate regulations, go elsewhere. Skilled workmen had frequently left their families in other towns and come to the munition centres, attracted by the high earnings with increased rates for overtime work, which more than covered the cost of keeping up two homes. Discontinuance of Sunday labour would certainly mean decreased output, if the workmen were tempted thereby to seek other employment. Government contractors on building work, who were normally unprotected from losing labour by the provisions of Section 7 of the Munitions of War Act, urged this difficulty very strongly. It was for this reason that the influence of the Ministry, even without coercion, was valuable in securing group action among employers in diminishing both Sunday and overtime work.

From the workpeople's point of view, the desirability of stopping Sunday and overtime work was largely a matter of wages. Sunday work in most though not in all industries, by tradition or agreement, received double pay; it was therefore proportionally valued by certain classes of workers, and in some cases (as at Messrs. Armstrong's, at Newcastle) it was found that the workers preferred that the twenty-four hours' rest urged by the Ministry of Munitions should be taken on a week-day, paid at normal rates, rather than on the highly-paid Sunday. In the same way, it was sometimes represented on behalf of employers.

1 Hist. Rec./H/343/2. 2 C.E. 1658/13; C.E. 439/13. 3 C.E. 828/13.

A well-known Derby firm admitted, in submitting their time table in 1916 for approval by the Home Office, that they felt that they might well be asked: "Why don't you work all day Saturday and play all day Sunday?" They had, however, deliberately arranged to stop work punctually at noon on Saturdays, and to work (on three Sundays out of four) from 8.30 to 5 on Sundays, and they felt that their system might well be copied. The men, or at least the great majority of them, did not go to church or chapel, whereas they could amuse themselves and get fresh air on Saturday, in a way which Sabbatarian prejudices would prevent on Sundays. If a full day's work on Saturday were substituted for Sunday work, the men would constantly ask for or take their Saturday off. (C.E. 828/13.)
of women munition workers that a Saturday holiday gave them opportunities of shopping, which a free Sunday would not provide. Despite this and similar examples, the rest day secured to munition workers was normally the Sunday. Where the intention to stop Sunday work was duly explained beforehand to the workpeople in accordance with the provisions of Schedule II of the Munitions of War Act, labour trouble was only reported to the Ministry in isolated cases. In some cases, increased overtime work on week-days partly met the difference in earnings; in others, the stoppage of Sunday work was made the excuse for further general demands for increased wages. The workers of the country had no desire for a seven days week on other than patriotic or pecuniary grounds.

The wages question, however, largely influenced the attitude both of employers and employed with regard to long working hours on week-days. Thus, skilled tool-room men were reported periodically to insist on long hours of work, in spite of obvious fatigue, in order to compensate in some measure for their lesser opportunities of earning as compared with pieceworkers, while they urged, reciprocally, that wage rates must rise if overtime was, as seemed probable in 1916, to fall off, since it was only the extent of overtime earnings that had camouflage the fact that their standard rates had not risen in proportion to the rise in the cost of living. At the other end of the scale, labourers on time-work often asked to be employed on overtime; and munitions tribunals dealt with a number of cases in which such low-paid workers demanded their leaving certificates because of diminished opportunities of increasing their earnings by overtime work for the firm which thus employed them. The tribunals on various occasions in dealing with such appeals expressed the hope that the men in question would be given fresh opportunities of overtime employment. And in the case of women workers, low wage rates were often quoted as a justification for long hours of work. To the woman or girl living just on the margin of subsistence on the 14s. or 15s. weekly wage common before the Ministry began to regulate the wages of women on “women’s work” in the second half of 1916, the increased earnings procurable by overtime work might more than compensate for the resultant fatigue by the better food and lodging thereby secured. The greatly improved standard of living among large numbers of women, and to a less extent among men munition workers, undoubtedly contributed to the power of endurance shown by them. More than once, however, the Wages Section of the Ministry was called in to negotiate for a rise in rates of wages paid by a firm, before the Hours of Labour Section could take action to

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1 C.E. 372/13, C.E. 1352/13; Hours of Labour Committee Minutes, 23 March, 1916; Committee on Production reports, etc.

2 Cf. the “Canteen” reports of the Health of Munition Workers Committee, with their comments on the modification in the tea and bread and butter diet of the woman worker as a result of increased wages and canteen facilities.
diminish the hours worked by its employees. And even when a minimum wage rate had been laid down for women on men's work the same reason tended to make the shorter hours of the eight-hour shift system unpopular, since the £1 minimum guaranteed to women taking men's work was, until December, 1916, based on the 53 or 54 hours week common in the engineering trades, and received a proportionate reduction when only 48 hours were worked. This question of earnings was on various occasions brought forward as a reason for abandoning or refusing to adopt an eight hours day for women munition workers. A certain type of apparently well-paid workers, both men and women, clamoured for long hours of work and opportunities of high earnings and resented the efforts of the Government or of employers to curtail these. This attitude was frequently and quite comprehensibly reported among the Belgian munition workers, especially in their first months of English factory life. As a whole, however, a desire for further rest became general both among employers and employed in the course of the year 1916. Exceptions to this were found principally, though not exclusively, among the less well-paid of the time-workers. Especially in the case of women workers, hours of labour clearly could not and cannot be settled satisfactorily without reference to the wages paid.

The vexed question of the relation of the standard weekly wage to the working week is considered later in connection with the claim for a reduction of normal hours, as distinct from that of overtime work.

IV. First Recommendations of the Health of Munition Workers Committee.

The memoranda of the Health of Munition Workers Committee coloured the policy of the Hours of Labour Committee so largely, that a summary of certain of them is almost essential for comprehen-

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1 Thus in June, 1916, a Birmingham firm, with which the Hours of Labour Committee and the Home Office had prolonged negotiations for two years, reported much difficulty in inducing its women workers (whose hours of work had been reduced from 77 to 66 £ per week) to accept a further reduction to 58½ hours, since this would diminish the adult workers' time earnings from £2 3s. 9d. to 18s. 8d. In July, 1916, an application from a Birmingham wire rope firm for leave to change from a 45-hour week to a week of 55½ hours per day, 50 per night, was sanctioned, on the firm's explanation that by this means the wages of its women workers would be raised from an average of 16s. 9d.—based on the normal rates in the trade—to 19s. 6d. (C.E. 1016/13; C.E. 1250/13.)

2 See Vol. V., Part II.

3 One of the complaints made to a small commission, appointed in August, 1915, to enquire into alleged grievances among Belgian munition workers in English factories, came from a group of Belgians employed at Coventry, and was to the effect that they were only employed for 54 instead of 78 hours a week as they had expected. [M.W. 54772.]

4 Reports issued by the Health of Munition Workers Committee bearing on hours of labour:—Memorandum No. 1, Sunday Labour (Nov., 1915); No. 2, Welfare; No. 4, Employment of Women; No. 5, Hours of Work (Jan., 1916); No. 7, Industrial Fatigue; No. 10, Sickness (Feb., 1916); No. 12, Output in Relation to Hours of Work (July, 1916); No. 18, Further Statistics on Output in relation to Hours of Work (Aug., 1917); No. 20, Weekly Hours of Employment; Industrial Efficiency and Fatigue, Interim Report (Feb., 1917, Cd. 8511); Industrial Health and Efficiency, Final Report (1918).
sion of that policy. On 7 March, 1916, the Hours of Labour Committee definitely "adopted" the Health of Munition Workers Committee's programme. It must be admitted that the pressure of demand from the Supply Departments led in the course of the year 1916, and subsequently, to very many gaps in the consistent administration of such a policy.

(a) Sunday Labour.

The Health of Munition Workers Committee recommended, in its first memorandum, that the discontinuance of Sunday labour should be of universal application, and should extend to all classes of workers. Except where the work was necessarily continuous, Sunday labour should be confined to special emergencies, including the occasional making up of arrears in particular sections, and to repairs, tending furnaces, etc., the men so employed being given a corresponding period of rest during some part of the week. The first circular on Sunday labour issued by the Ministry to controlled establishments (in December, 1915) accordingly urged that not more than 12 single shifts or 24 double shifts should normally be worked. Meanwhile the Committee urged that if this complete discontinuance could not be secured, one Sunday shift should be dropped (or two shifts if three were normally worked); that Sunday work should be cut down for overtime workers; that alternate Sundays off should be given, or a complete 24 hours' rest at some period in the week; and that week-end volunteers should be used for Sunday reliefs.

(b) Overtime.

With regard to overtime, the Committee urged, in their fifth memorandum on Hours of Work, that the average weekly hours of labour, including overtime, should not exceed 65 to 67 for men and 60 for women. They suggested that it might be desirable to differentiate to some extent between different kinds of work, since investigation already indicated the very comprehensible conclusion, later demonstrated statistically, that the normal working hours should be shorter on heavy than on light occupations. They did not, however, offer any detailed information on this point, because at the time they had not sufficient data at their disposal to warrant definite conclusions. In successive reports they drew attention to the extravagance of excessive overtime work.

"Even during the urgent claims of a war the problem must always be to obtain the maximum output from the individual worker which is compatible with the maintenance of his health. In war time the workmen will be willing, as they are showing in so many directions, to forgo comfort, and to work nearer the margin of accumulating fatigue than in time of peace, but the country cannot afford the extravagance of paying for work done during incapacity from fatigue, just because so many hours are spent upon it; and the further

1 See p. 97.
extravagance of urging armies of workmen towards relative incapacity by neglect of physiological law. . . . Taking the country as a whole, the Committee are bound to record their impression that the munition workers in general have been allowed to reach a state of reduced efficiency and lowered health, which might have been avoided, without reduction of output, by attention to the details of daily and weekly rests. (The signs of fatigue are even more noticeable in the case of the managers and foremen, and their practical results are probably more serious than in the case of the workmen.)”

In their report on the Employment of Women the same Committee drew attention to the bad effects, both on health and output, of prolonged overtime among women workers. “The importance to women of a wise limitation of their hours of work and an appropriate distribution of the pauses in those hours, can hardly be overstated.” Further detailed investigations into the relation of hours of work and output, carried out on behalf of the Ministry during 1917, only confirmed the more general conclusions quoted from these earlier reports.

(c) Shifts and Spells of Work and Nightwork.

With regard to the general question of the reduction and adjustment of hours of work, apart from overtime, the Health of Munition Workers Committee made many suggestions, especially for the benefit of the new army of women factory workers.

In one of its early reports the Committee expressed an opinion, as yet unsupported by definite statistics, on the subject of shifts.

“The three systems of employment most commonly adopted for women in munition works are as follows:—One shift of 13-14 hours (the overtime system); two shifts of 12 hours; and three shifts of 8 hours.

Of these, the system of eight-hour shifts appears to yield the best results in the long run. The strain of night work, indeed strain generally, is sensibly diminished, greater vigour of work is maintained throughout the shift, less time is lost by unpunctuality or illness, and there is less liability to accident. More hours of actual work are available out of the twenty-four, and in the eight-hour shift each hour has a sustained value, in contrast to the diminishing value of the later hours in a twelve-hour shift. The Committee recommend the adoption of the three shifts system, without overtime, whenever a sufficient supply of labour is available. Where the supply is governed by difficulties of housing and transit, the committee are of opinion that every effort should be made to overcome these difficulties before a less serviceable system be continued or adopted.”

2 Memorandum No. 4, Employment of Women.
3 Memorandum No. 4, Employment of Women.
The strain of prolonged spells of work, even if they did not exceed the legal limit of five hours, had been frequently pointed out by Factory Inspectors before the war. The Health of Munition Workers Committee drew attention to the great value of pauses, well distributed, in averting breakdown and in giving an impetus to output. "With a five-hour spell," they urged, "there should certainly be a break for a cup of tea or cocoa."

The Committee recognised that the employment of women on night work was undesirable but inevitable in time of war. They therefore recommended that provision of canteens and of responsible supervision of rest rooms should, so far as possible, be enforced when protected persons were engaged on night work. The objections to night work were personal and social rather than industrial. Subsequent investigations, carried out indeed on a limited scale, failed to show any real inferiority in output from night work.

"There is no significant difference between the rate of output in night and day shifts managed on the discontinuous system. The time-keeping, too, of women and girls over or about nineteen years of age working alternate weeks of day and night shifts appears to be even better maintained than when they worked on permanent day shifts."  

The Committee, however, made it clear that any conclusions reached by them on the subject of night work applied only to war conditions, and that they were not prepared to dogmatise on the question of the industrial efficacy of night work in general.

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1 Memorandum No. 4, Employment of Women, pp. 4, 5 and 6.
2 Industrial Efficiency and Fatigue, p. 5 (February, 1917).
CHAPTER VI.


I. Sunday Labour.

(a) The extent of Sunday Munition Work in 1916.

The Ministry of Munitions gradually and with marked exceptions approached in the controlled establishments and national factories the standard of hours of work set by the Health of Munition Workers Committee.

When replies were received in February, 1916, to the questionnaire sent out to controlled establishments (excluding the High Explosives and Chemical Factories, where work was normally continuous) it was found that 812 employed Sunday labour, while 1,434 did not do so. Throughout the early months of the year, the Hours of Labour Committee considered at their weekly meetings the names of firms which had given up Sunday labour or proposed to give it up shortly. In May a list was produced of 89 firms which had discontinued Sunday labour in December, January, February and March, the first four months of the Ministry’s activity in the matter, and of 76 others which pursued the alternative policy of giving twenty-four hours’ rest during the week.1 Among the latter were important engineering and shipbuilding firms such as Messrs. Hadfields, Armstrong Whitworth, Thornycroft, Harland and Wolff, White and Poppe.

At the end of this month the Hours of Labour Committee sent a letter to firms which had thus ceased Sunday labour, asking them for their views on the effect of this discontinuance upon their employees’ output, health and regularity of attendance, and also for information as to any resulting changes in earnings, or in the hours worked during the week. Two months later answers had been received from 65 of these controlled establishments, with supplementary reports from Home Office Inspectors who had visited the firms. No very valid statistics could be supplied, as in many cases the work had varied during the period. As a whole, however, the reports coincided remarkably with the findings of the memorandum on Sunday Labour of the Health of Munition Workers Committee. All reported improved health among their workers, except in one case, where absences (with doctors’ certificates) multiplied, owing to the “holiday feeling” produced by a free Sunday. On the whole a marked improvement in time-keeping was reported, though four firms reported a deterioration in time-keeping which they ascribed to the unfortunate influence

1 Parliamentary Debates (1916), H. of C., LXXXII., 2711.
of the "holiday spirit." Twenty-two firms said that their output had been maintained, and seven that it had been increased by the stoppage of Sunday work, though admittedly it was difficult to isolate this influence among the constant changes in personnel, methods and conditions of work, in the first half of the year 1916.1

Forty-two firms had met no wages difficulties. Ten others had disposed of these by arranging opportunities for overtime work and earnings during the week. These results, even if inadequate statistically, were sufficiently satisfactory to suggest that an experiment might now be tried in a more general stoppage of Sunday labour.

(b) Proposed Stoppage of Sunday Work at Sheffield.

It was suggested that such an experiment might be made in the Sheffield area, where very long hours had been worked for many months, and a number of representative firms were asked for their views. Already 105 out of 187 munition firms at Sheffield reported to the Ministry at the end of May, 1916, that they did not employ Sunday labour. It was felt that if some half-dozen leading firms, such as Messrs. Firth, S. Fox, Vickers, Hadfield and Cammell Laird would agree to stop work on Sunday, others would follow their example, and a valuable object lesson would be given to other districts. Some of the replies received from the firms approached were not discouraging. Thus, Messrs. T. Firth and Sons replied in favour of the stoppage of Sunday work from their own point of view, and reported that other firms in Sheffield were also in sympathy with the desire to put a stop to week-end labour on production, although they urged that, owing to the wages difficulty to which reference has already been made, any instructions as to discontinuing Sunday labour should be given nationally if at all.2 The Supply Departments of the Ministry, however, when consulted, replied that it was quite impossible to sanction the stoppage of Sunday labour at Sheffield at the present. The pressing demand for steel and for 6-in., 8-in., and 9·2-in. shell was quite unsatisfied, and the Minister was then actively engaged in securing the postponement of all holidays till August, so that the output of munitions of all kinds should continue unbroken. Messrs. Firth and Hadfield, amongst much output of different types, were supplying large quantities of steel plates for helmets. It was essential that Firth's especially should not be closed down for an hour a week until huge reserve stocks of munitions had been built up. Sheffield was, therefore, not selected for an experiment in the effects of the local discontinuance of Sunday labour. In its stead, the North East Coast area was chosen.

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1 Thus the Austin Motor Co. reported a steady increase in their weekly output of 13-pdr. and 18-pdr. shells from August, 1915, to March, 1916. This, the firm said, was due largely to increased experience among their employees; but the monthly increase had been larger since Sunday work was dropped in November, 1915. (C.E., 158/13.)

2 C.E. 459/13. Reports of discontent among the skilled day-workers in Sheffield munition works constantly reached the Department during the first six months of 1916, and were the subject of a special enquiry by the Wages Section, and of a "hearing" before the Committee on Production on 9 August.
(c) Discontinuance of Sunday Labour on the Tyne.

On 19 July the names of 81 firms on the Tyne and 54 on the Tees were returned as having already ceased to employ Sunday labour. Messrs. Armstrong, at the same time, reported very favourably on the effect of the change of hours which they had introduced at their works in February, on the representations of the Ministry. This change, though it did not, owing to the employees' opposition, involve a complete Sunday off for any worker, yet gave a clear 24 hours' rest to both day and night shifts. There had been, the firm reported, no diminution in output and no wage difficulties, but a reduction in time lost and in accidents. On 14 September, 1916, with the advantage of this large scale local example, a letter was sent by the Ministry to each of the principal engineering and shipbuilding establishments in the North East Coast district (except those engaged on the manufacture of 6-in. and heavier shell, then in urgent demand), stating that "the Minister would be glad" if the firm addressed would arrange for the discontinuance of Sunday labour, and notices were a few days later sent to the Press, calling attention to the Ministry's attitude towards Sunday labour, and to its discontinuance on the Tyne.

Sunday labour was accordingly generally stopped in this district, except by firms engaged on continuous process work or requiring repairs. The change took place smoothly, and when, at the end of the year, a special inquiry into its results was held by the local factory inspectors, and by the Ministry's Chief Investigation Officer, in conjunction with the local Labour Advisory Boards, the reports received were almost uniformly satisfactory. There had been little difficulty as to wages; there was, according to the Labour Advisory Boards, "no desire to re-start or extend Sunday labour, except among certain sections of workers who desired it because it gave them increased earnings." Time-keeping on the whole had improved, allowing for the recent very bad weather, and there was no evidence of decreased output. The different works belonging to Messrs. Armstrong stopped at noon on Saturdays and started on Sunday night or Monday morning, and the chairman of their directors had recently publicly expressed his satisfaction at the change.

(d) General Reduction of Sunday Labour in 1917.

The Committee thus had the desired precedent of the successful discontinuance of Sunday labour throughout a large area. This could now be quoted in proposals for the extension of such discontinuance. Unfortunately for such a policy, at the beginning of 1917 there was a recrudescence of demand for Sunday labour, owing to the urgent need for additional output of certain forms of munitions, so that the Committee could not at once attempt to secure any further limitation of work. At the end of December, 1916, 890 controlled establishments, including those engaged on continuous processes, were employing Sunday labour on production or on repair work, and the National Filling Factories received permission to work every Sunday up to 31 March, provided that the maximum of 60 hours for women and young people was not exceeded. Eight of the principal firms engaged
on the manufacture of guns and gun carriages also obtained leave to work every Sunday. At the same time, however, it was decided to collect the opinions of the different Supply Departments with regard to the further stoppage of Sunday labour. In March the replies from these Departments were considered. They showed a marked change of attitude from that of the previous year. Almost all, including the Admiralty, which had steadily disapproved dispersed Sunday labour except on repairs since April, 1915, and the War Office, were in favour of a general stoppage of Sunday work, provided that adequate provision was made for urgent repairs and for "emergencies." The only dissentients were the Air Board, which did not consider it possible for the aircraft firms to discontinue Sunday work, except in individual cases; and the Director-General of Ordnance Supplies, Sir Charles Ellis, who agreed that Sunday work should be discontinued except among special firms, which, for his department, included all those engaged on guns and gun carriages, together with two large rifle manufacturers.1

Under these circumstances the Hours of Labour Committee decided to communicate with all controlled establishments which were employing Sunday labour, pointing out to them the views of the Department on the subject, and instructing them to discontinue all Sunday work from the beginning of May, except for the necessary repair of machinery or for work of exceptional urgency, or for shifts starting on Sunday night or ending on Sunday morning. (Exemptions might, however, it was explained, still be obtained in times of great need.)

A circular to this effect2 was accordingly sent out in April, 1917, to all controlled establishments except a certain number known to be engaged on work of special urgency. The Hours of Labour Committee was thus able to give effect to the principles which it had adopted more than a year earlier. Sunday labour still continued, but the numbers so employed shrunk to comparatively small proportions in the course of the year.3

(e) Statutory Prohibition of Sunday Labour on Building Work.

In dealing with one class of labour, performed by workmen who were not technically engaged on munition work although they were most important to its output, the Department obtained definite statutory powers to check Sunday work. A special order (Statutory Rules and Orders, No. 912 of 1917), issued in July, 1917, under Regulation 8E of the Defence of the Realm Act, prohibited the employment of Sunday labour for building and construction work, except in so far as such work was authorised by the Government Department for which the work was being carried on, or was undertaken on an occasion of sudden emergency, subsequently reported to the Ministry of Munitions, such "sudden emergency" not to include "mere urgency for the completion of work." In accordance with this order, builders engaged on private work could only employ Sunday labour by special licence from the Building Labour Committee, an inter-

1 M.W. 60197/41.  
2 Circular L. 86.  
3 See Appendix II for statistics of Sunday labour on "non-continuous processes" in controlled establishments.
departmental committee established in October, 1915, to secure uniformity in policy between different Departments in dealing with the difficult problems of competing contractors and unstable labour supply in the building trade, so far as it concerned the production of munitions. ¹ Government Departments, however, still retained considerable latitude for permitting Sunday work on construction which they held to be of special importance, and exercised this with no obligation except that of reporting to the Building Labour Committee when Sunday work was sanctioned for their contractors. This power was curtailed by an order issued in December, 1917, by the War Priorities Committee of the War Cabinet, to the effect that from 14 January, 1918, no Sunday labour, except in sudden emergency, would be permitted to contractors and employees for Government Departments, "subject to the right of appeal to the Works Construction Sub-Committee of the War Priorities Committee, in cases of special hardship, this prohibition to apply equally to controlled establishments. "Other works of construction requiring licence should only be approved by the Works Construction Sub-Committee on the condition that Sunday labour was not employed."²

Objections to Sunday labour for building work did not proceed so much from the resulting overstrain to the workers, as was the case in the engineering trades, since building work is often inevitably stopped by bad weather, or carried on for comparatively short hours during, at least, the winter months. It was urged by the spending Departments rather on grounds of economy, and of preventing the not infrequent poaching of labour by competing building contractors through offers of Sunday work at double pay. The conclusion, however, that a seven days' working week tends to waste of time and money was borne out by experience equally in building and in munition work.³

¹ Hist. Rec./H/321/2.
² L.R. 1089/10.
³ The following letter received in May, 1916, by the Ministry from the local office of a trade union near a recently established national factory, where work was continuously carried on upon Sundays, illustrates the sabbatarian point of view with regard to Sunday labour:—

"I should like to try and say a few words. ... This old England of ours, what a mighty nation it is, with its millions of money, a grand defence, we could not do without it. Then with its mighty Fleet ... what a defence, we could not do without it. And then with its mighty Army that has made the world to shudder again, could we do without this? Oh no! What a wall of defence it is, we could not do without it. But with these three mighty defences we are next thing to helpless; we must have something to go with them, and this brings me to the thing which I want to say, we must have a bit of the spirit to help these great forces. We are living in an age of work and no time to refresh the spirit. Although it had been clearly demonstrated on purely physical grounds that a day of rest was a national necessity, and unless a man, let alone a woman, had her quiet seasons their inmost and truest life would run to waste. Here we have a few hundreds of women working in a district where it is a new thing and where they have been in the custom of going to Sunday school and they find it hard. They are supposed to have a day off in the week, but they all prefer Sunday when they can be refreshed and come with new vigour on the Monday morning to go forward and do their best. Hoping you will consider the matter, which would be a great improvement."

It was explained to the writer of the above letter that all workers in this factory had one day off per week, and that anyone preferring a Sunday to a weekday rest could have it. (C.E. 3522/13.)
(f) Sunday Labour on "Continuous Processes."

Firms engaged in the manufacture of chemicals and explosives, and those which involved continuous processes, such as blast-furnaces, were inevitably exempt from pressure to close down on Sundays. The disadvantages of even a short stoppage of work in the production of explosives had been represented in December, 1915, by the Explosives Supply Department. "Apart from the question of loss of plant capacity" (and a twenty-four hours' stoppage would involve a loss of 30 per cent. of output in the case of sulphuric acid chamber and concentrating plant) "the waste of time while slowing down and speeding up chemical plant, and the consequent loss of output . . . is very great, and the only economical method is to work continuously on three shifts." Such shifts were organised in most of H.M. Explosives Factories for all the women and for a large proportion of the men engaged. Special directions were accordingly issued by the Department for such factories, urging that one or more shifts per week should be dropped for each worker in compensation for the full Sunday rest.

The managers of these works were confronted by a special difficulty with regard to their workpeople—a difficulty caused by a concession to sabbatarian feeling made in the course of the debates on the Munitions of War (Amendment) Act. Under the resulting amendments of February, 1916, to the Munitions Ordering of Work Regulations, no penalties could be imposed by a munitions tribunal on a man or woman refusing to work on Sundays. It was possible therefore for an indispensable workman to absent himself from his work on Sunday in the midst of a "continuous process" without detriment to himself. The Hours of Labour Committee considered the position in the autumn of 1916, and admitted the difficulty in which the group of ironmasters who had raised the question were placed, but agreed that no remedy could be provided short of an amendment to the Act.

(g) Week-end Relief Labour.

Where Sunday labour either on the single or double shift system could not be stopped completely by closing down the works for 24 hours, the Hours of Labour Section had to be content either with urging a firm thus hardly pressed to drop one shift on Sunday, so that only 26 out of the possible 28 double shifts should be worked per fortnight, or to employ special week-end relief labour. Such relief shifts were provided in some few cases by the engagement of an extra number of women or boy workers, so that those who worked on Sunday could have a corresponding amount of time free in the week. This was arranged for a short time by Messrs. Vickers at Barrow at the end of 1916.

Another alternative was to employ persons not normally engaged on factory work, such as those organised independently by a "Volunteer Munitions Brigade," which, just before the establishment of the

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1 M.W. 60197, 2.
2 Circular M.M.10.
3 Thus at H.M. Guncotton Factory, Queensferry, eight women were engaged to do the work of seven, so that each could have one whole day off per week.
4 See Vol. IV., Part II.
5 An attempt was made to deal with this difficulty by an agreement made by their employers with the Cleveland blast-furnacemen for the improvement of time-keeping in 1917. (See p. 152.)
Ministry of Munitions, enrolled some 15,000 members in the London area, and from the end of June, 1915, sent for many months regular detachments of volunteers for Saturday afternoon and Sunday work at Woolwich Arsenal. During the first year of its existence this brigade supplied 7,300 workers for employment in the London area, and 275,000 six-hour shifts of work were performed by its members. A similar organisation on a smaller scale, the "Women Munition Workers," recruited and supplied after brief periods of training some 2,000 "educated" women for Sunday factory work in the neighbourhood of London. Other bodies of volunteers offered themselves independently during the early summer of 1915, and were employed by a few firms in the provinces, for example, at Glasgow, at Paisley, and Newcastle. These workers were normally drawn from the professional classes. They were engaged in non-manual work during the week, and their Sunday labours were an expression of the desire for national service which in the first stages of the war had been often repressed for lack of object. Some suspicion of the movement was at first shown by organised labour, but this was met by a generally accepted undertaking that "voluntary" workers would be paid at the same rates as those whom they relieved, and that if material was short they would not be employed to the detriment of the regular workers. Their work was almost always unskilled or at most semiskilled, since the majority of workers had no time to spare for preliminary training, and few opportunities for training were in any case available. The Volunteer Munitions Brigade, however, included a certain number of members with engineering experience who undertook skilled work at Woolwich Arsenal and elsewhere.

The Ministry endeavoured during the year 1916 to popularise the employment of such week-end labour, both by circulars to controlled establishments, by the recommendation of its own officials, and through the agency of the Labour Exchanges, whose officers in September, 1916, conducted a detailed inquiry into its actual and potential use. A special subsection of the Secretariat, under Mr. W. H. Cowan, M.P., was formed in January, 1916, in Mr. H. E. Morgan's section, to deal with the supply of week-end labour, and attention was drawn to its existence more than once by questions in the House of Commons. Circulars sent to controlled establishments by the Labour Department of the Ministry in June, 1916, pointed out that the voluntary labour of "persons who from patriotic motives offered themselves for week-end work in the production of munitions" was already being employed in certain repetition and other processes with satisfactory results in a number of important

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1 In May, 1916, the Department took over the control of this Brigade. (M.W. 60436; O.F./Gen./202.)
3 M.W. 91889, 60436; C.E. 1049/13. Thus volunteer tentmakers in Earl's Court gave up their Sunday work in November, 1915, because members of the Workers' Union held, with apparent justification, that the relief workers were taking away work which could well be done by themselves.
5 M.W. 94863; Parliamentary Debates (1916), H. of C., LXXX. 1173.
establishments. Firms which either employed or proposed to employ Sunday labour were accordingly urged to apply to the Divisional Officer of the Labour Exchanges for a supply of special relief workers in order to secure rest for their regular staff.  

No enthusiasm was shown in anticipation by employers as a whole for volunteer labour, though a few who made the experiment expressed very warm approval of the results. The objections commonly raised in advance were (1) that such workers would be unpunctual and unreliable (a. usual, if unjustified, criticism of "voluntary" workers); (2) that they would be likely to damage valuable tools and machinery; (3) that their employment could not release the foremen and toolroom staff from Sunday labour, whereas these formed the class most in need of rest. The difficulties in providing skilled superintendence, and of securing, in the shortage of training facilities, preliminary training for unskilled volunteers, were the causes which prevented volunteer labour being widely utilised. In the second half of 1915, however, and the first half of the succeeding year, the voluntary workers secured a week-end break for a considerable number of over-worked munition makers and also the extended use of machines for output. Their readiness to serve as substitutes gave point to the Department's representations as to the need of rest for the regular workers, and where employers refused point blank (as in the case of the National Projectile Factory managers in August, 1916, and of various private firms a month or two earlier) to consider their employment even in repetition work, claims for special leave to continue Sunday labour among the existing workpeople were obviously weakened.  

1 Circulars L. 18; L. 50; L. 50b.
2 Minutes of National Projectile Factories Committee.
3 The extent of organised Sunday relief work in September, 1916, was reported by Labour Exchange officials to be as follows:—Some half-dozen provincial firms employed small numbers of relief workers. In the London area, nine firms, excluding Woolwich Arsenal, were employing small bodies of men and women volunteers (some 500 in all) on Saturday afternoon and Sunday work. Six other firms had used such labour, but had discontinued it. The relief workers actually engaged were mostly doing unskilled work. Thus Messrs. Vickers at Crayford had some 70 members of a local Volunteer Training Corps who came weekly to clean up the shops. At Erith the same firm employed 100 volunteers on similar work and 18 women on shell machining. A firm of engineers at Bow Bridge had 70 men, recruited by its own managers among the "bank clerk and newspaper type of man," who were said to do good work in machining 6 in. H.E. shells and shell noses. The London Small Arms Company employed some 50 men, recently introduced by Mr. Cowan at the request of the Hours of Labour Committee, in order to secure rest for the boy employees, whom the firm had proposed to employ for 68½ and 77½ hours on alternate weeks. At Woolwich Arsenal some 1,300 of the Volunteer Munition Brigade were still employed every week-end. This Volunteer Munition Brigade had the largest record for voluntary munitions work during the war. Up to 21 December, 1917, when its services at Woolwich ceased owing to the general decrease in Sunday work at the Arsenal, its members had put in 400,000 shifts each of six hours. They were employed, with certain skilled exceptions, either at "labouring" work, porterage, etc., or in the Small Arms Cartridge Factory and elsewhere on machines which, though requiring no special degree of skill, needed attention. They were said to do this latter work very well, though not to reach the output of the normal workers. Beside work at Woolwich Arsenal, they had then given week-end help at 17 factories, and had on one occasion, in the autumn of 1915, supplied nearly 8,000 men for such work. (M.W. 60197/27; L.E. 48511.)
By the end of 1916 practically no demands for volunteer relief work in munitions factories had been received by the Labour Exchanges, and its use had almost ended, except at Woolwich Arsenal. Other opportunities of part-time voluntary work multiplied in the course of the following year and were summarised in a comprehensive publication issued by the Ministry of National Service. At the same time the supply of potential relief workers in factories declined, as women who had earlier offered part-time work were absorbed in whole-time employment, and business men found their staffs curtailed and their own labours increased, while the demand for their help shrank with the general decrease in Sunday munitions work. In November, 1917, the Department intimated that its connection, financial and administrative, with relief labour, even at Woolwich, would end in the following month.

The offer of week-end relief work was only a small side issue in the organisation of munitions labour supply. It is, however, worth record, both as a successful attempt to utilise voluntary effort and as a factor in the hours of labour policy of the Department.

II. Overtime Work.

(a) The Limits under the General Munitions Orders of 1915 and 1916.

It was even less easy for the Ministry to formulate and make effective a definite policy for the limitation of overtime work than for the abandonment of Sunday labour. The legal position was defined for munition workers by the general and special orders issued by the Home Office. The general order, which held good from July, 1915, to October, 1916, established a legal maximum, as has been said, of 65 hours a week for women and girls and boys under 16, and 67\(\frac{1}{2}\) hours for boys over 16. In practice, however, these limits were exceeded. Thus at Woolwich Arsenal, for the first six months of 1916, protected persons were frequently employed for 13 12-hour shifts per fortnight, which meant a week's work of 63 and 73\(\frac{1}{2}\) hours alternately.1 At Dudley National Projectile Factory, the Factory Inspector reported in September, 1916, that the day shift had for some months worked 15 turns per fortnight (13 of 11 hours and 2 of 8 hours, including meals); and the night shift 14 turns (13 of 11 hours and 1 of 8).2 At the Electric Ordnance Company's works at Birmingham, 77 hours and 68 hours a week were worked by women in the latter part of 1915 and the beginning of 1916.3 Systematic overtime was worked in almost all the munition trades, and especially in the engineering trades, in which, according to the monthly returns obtained from controlled establishments, overtime by men employed on overtime averaged from 12 to 11 hours per week, and by women so employed from 7\(\frac{1}{2}\) to 6\(\frac{1}{2}\), between September, 1916, and July, 1917.4

When the Hours of Labour Committee received reports that excessive overtime was being worked by firms which supplied munitions, it was often able, by merely drawing the attention of the manage-

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1 C.E. 1947/13. 2 C.E. 2631/13. 3 C.E. 1016/13. 4 See Appendix III.
ment to the terms of the general order for munition workers, to reduce the hours within these limits. The "sanction" of the Factory Acts always remained in the background for production to recalcitrant firms. And as each "special order" came up for revision by the Home Office at the close of the period for which it was granted, it was, after January, 1916, in case of doubt, referred to the Joint Hours of Labour Committee, so that its continuance might be reconsidered with the representatives of the Supply Departments and of the Home Office. This gave useful opportunities for issuing instructions to firms as to the adjustment of shifts (especially at the weekly or fortnightly "change over" from day to night work) and as to the maximum number of hours to be worked in any one day.

Under the General Munitions Orders of 1915 and 1916 no woman, or girl or boy under 16, was permitted to work more than 14 hours in any one day. In applications for special orders, however, firms frequently, in 1916, submitted schemes which involved very heavy days or nights of work, even if the prescribed weekly total were not exceeded. Thus at a very large Sheffield works\(^1\) boys of 14 and upwards at this time commonly worked 13 hours for five or six night shifts during the week; while at an important cable works\(^2\) (strained to the utmost in the first half of 1916 to produce field telegraph cables) five day shifts of 13½ hours were worked by women and young persons for five days a week, in addition to a Saturday shift from 7.30 to 12.30 or 6 p.m. in special emergency. In April, 1918, women and girls over 14 were found to be working up to 78 hours a week on munitions in a Blackpool factory, and the day shift at a Government cartridge factory was working seven days and 70 hours a week.\(^3\)

The limit of 14 hours' work in any one day for all "protected persons" except boys over 16 was retained, although it affected an arrangement of overtime, common in Scotland, by which normal working hours were adhered to on three days of the week, while on the other three hours of overtime were worked, say from 6 to 9 p.m. In spite of applications from individual firms, the 14-hour limit was, however, adhered to in the granting of exemption orders, though older boys were permitted to fall in with the practice of the men with whom they worked: For the same reason boys were sometimes called on to work along with the men whom they were helping for 18 hours at a stretch, according to a common system by which the weekly or fortnightly change over from the night to the day shift was carried out by requiring those employed to work their own shift and half that of the other workers.\(^4\)

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1 C.E. 1021/13.
2 C.E. 896/13.
3 Histr. Rec./R/343/106.
4 Other and more extreme cases were reported periodically to the Ministry. Thus in January, 1917, the Hendon Aircraft Co. was reported to be employing men for 20 hours at a stretch on doping. (C.E. 109/13.) In May of the same year, the factory inspectors were informed that another aircraft company had been working a body of 18 women for consecutive periods of 29, 34, 23, and 37 hours, with intervals for meals but for no other rest. (Hours of Labour Committee Minutes.)
Under the General Munitions Order issued by the Home Office in October, 1916, the weekly maximum, except in ship repairing, was reduced to 60 for women, girls and boys under 16, and to 65 for boys over 16. There was therefore less incentive to employers to arrange for such long stretches of work on any one working day.

(b) OVERTIME AND INDUSTRIAL UNREST IN 1917.

The amount of overtime worked by "unprotected" persons fell slightly, but only slightly, in the course of 1916-17. There was a decrease in the number of overtime hours worked in controlled establish-
ments as a whole; but the amount worked by each man employed on overtime remained fairly constant, falling by only three-quarters of an hour per week on an average for those employed on overtime in controlled establishments between September, 1916, and July, 1917. In certain large factories, such as those of Messrs. Hadfield and Messrs. Firth at Sheffield, and Messrs. Beardmore at Paisley, the majority of the employees still worked from seven to eighteen hours weekly overtime in the first five months of 1917 (a fall, it is true, from the 74 and 76 hour week recorded by these three firms in the stress of June and July, 1916). Messrs. Vickers' engineers at Barrow were working, just before their strike in March, 1917, an average of $13\frac{1}{2}$ hours overtime above the normal week of 53 hours in their shipbuilding yards, and $13\frac{1}{2}$ hours overtime above the normal engineering week of 53 and $57\frac{1}{2}$ hours. The men so employed in the two branches of the firm numbered 3,600 and 12,000 respectively. Six thousand of the men, but only a very small number of women, were working on Sundays in February, 1917. In the previous November some 11,000 men from the engineering works and 1,381 women were doing 12 hours weekly overtime, and this had continued for many months. The attribution of contemporary industrial unrest to overstrain among other causes—an explanation given in the House of Commons during the discussion of the general engineering strike and the unsuccessful Munitions of War Bill of April and May, 1917, and again by the special commission which reported in July of the same year—is fully comprehensible.

1 C.E. 3568/13; L.I.B. files.
2 C.E. 1013/13.
3 Parliamentary Debates (1917), H. of C., XCII. 2790; XCIII. 1392.
4 A member of the National Brass Workers and Metal Mechanics Society, in a hearing before the Committee on Production in August, 1917, referred as follows to the relation of long hours of work to the admittedly high earnings in his trade.
5 "If you were to see the casters after they have done their week's work as I have seen them, you would say they are entitled to it. They go home after they have been working from 7 a.m. to 9 p.m. and say they are 'skint.' I myself have worked on an average 8½ days per week for two years and after my work I only feel inclined to lounge about and go to bed. . . . The Government have told us to push on: the caster has pushed on and many casters have made themselves wrecks in doing so while this war has been on, just to help the Government, and some of them, the fathers, thinking of their sons in the trenches." (Committee on Production, verbatim reports, August 23, 1917.)
(c) Reduction of Hours in Relation to Output.

In April, 1917, those of the men employed in munition works who were working overtime were still doing from 8 to 15 hours above the normal working week in government establishments, and an average excess of 10½ hours in controlled establishments. As a whole, however, employers and workers and the contracting Departments were by this time becoming equally convinced of the inadvisability of prolonged overtime work, unless the sudden needs of the armies at the front made this inevitable. Instances of improvement in health and time-keeping without diminution of output were reported by firms which had shortened their hours of work. The encouraging results from the Tyne firms who gave up Sunday labour have been quoted. In May, 1917, Messrs. Hadfield reported that their National Projectile Factory at Sheffield had dropped one night turn and Saturday afternoon work, without loss of output; and in the following August the same firm reported that one of the shell machining shops at their East Hecla Works had reduced the hours worked by 17 per cent. (from 69 to 57½ per week) with no loss of output, and in some cases with a slight increase. In one of the cartridge factories at Woolwich, a similarly marked increase of output was recorded on the reduction of hours in November, 1916.1

As an illustration of the manner in which experience showed the expense of long hours of work, and of working on the normal weekly holiday,2 these statistics may be quoted from a National Shell Factory where heavy overtime and Sunday work had for many months been carried on.

During six weeks, in the early part of 1917, the progress records of the factory showed an output of 11,998, 11,502 and 9,102 units on the afternoons of Tuesday, Thursday and Saturday respectively. The loss of output on Saturday as compared with the two other afternoons ranged from 14 per cent. to 34 per cent. in the processes involved. This might be due to fatigue or to the "holiday spirit." The result on prices, owing to overtime payments on Saturday afternoon, was a rise of from 2·4d. to 4·54d. per unit of production. The manager was anxious to drop Saturday afternoon work, but was informed by the district munitions committee that the demand for 18-pounder shell was too great for this to be permitted, in spite of expense.3

In 1917 some striking statistics on the relation of output to hours of work were prepared by Dr. Vernon, and were issued by the Health of Munition Workers Committee as a supplement to their fifth

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1 C.E. 497/13; Hours of Labour Committee Minutes.
2 By the General Order of September, 1916, a step was made towards the restoration of the Saturday half-holiday. No overtime was permitted for protected persons on Saturdays, and overtime was only to be sanctioned for boys by the superintendent of factories on condition that their work should end at 2 p.m. The section of the Welfare Department concerned with boys urged the importance of keeping clear one afternoon for them, and every effort was made to insist on this when applications for special exemptions were considered. With certain establishments, however, under great pressure for output, the young workers' and the women's half holiday had to be given up.
3 M.W. 170142.
memorandum—*Hours of Work*. Very detailed studies of various groups of workers—men, women and youths—engaged on operations on fuse bodies over periods of over 13 months were described in detail and showed conclusively that, in the examples selected, reduction of hours, even by 18 or 20 per week, increased net output.

Such results, even if not generalised, confirmed with the weight of detailed observation the growing feeling that long hours of work should be reduced in the interest of all parties concerned in production. Accordingly,¹ Mr. Winston Churchill, soon after his appointment to the Ministry of Munitions, sanctioned a proposal from Mr. Wolff that the Hours of Labour Committee should be called on to examine and report on the possibility of extensive reduction of hours of work for men, as well as for the "protected persons" in whose interests hours of work had primarily been reduced.²

(d) **Proposals for a General Restriction of Hours of Work in 1917.**

Strengthened by the generally spreading opinion that prolonged hours of overtime led to inefficiency and industrial unrest, by scientific data as to the comparative inefficiency of long hours of work in special instances, and by statistics as to the amount of overtime actually in progress in the munition trades, the Hours of Labour Committee considered the possibility of a compulsory limitation of hours of work for men, an unprecedented step, except with regard to coal miners, in the history of State control of industry in the country. It was decided in the course of the summer to recommend the establishment of a 63-hour maximum working week for men munition makers, this number of hours to exclude meal times but to include overtime, and to represent a limit not to be exceeded, except for the purposes of urgent and necessary repair work or work on a continuous process, unless special permission was obtained from the Ministry. Such a working week would not mean drastic interference with the average number of hours actually worked by the majority of firms, but would limit the firms which maintained very long hours to some ten hours overtime per week.

This proposal was, however, rejected on 27 September by the "L" Committee of the Munitions Council, primarily on the ground

¹ Minutes, Hours of Labour Committee (8 August, 1917). (Hist. Rec./R/343/100).
² According to a statement based on returns from controlled establishments in the four northern counties and the Middlesbrough district, overtime was worked in the middle of July, 1917, as follows: Out of 218,757 workpeople (157,687 men and 28,032 boys under 18, 21,869 women and 4,869 girls under 18), 49,337 were employed on overtime. Only a small minority of these (3,147) were women, who were employed for an average working week of 57·1 hours, *i.e.*, for 5·8 hours overtime per week. The men and boys on overtime, 46,190 in number, were employed for an average working week of 63·3 hours, including 10 hours overtime. The greatest amount of weekly overtime by men was worked in the following trade groups: electrical engineering, 15·8 hours (only 653 men were, however, involved); shipbuilding and iron and steel trades, 10·5; chemicals, 13·5; engineering, 10·2.
of earnings. The position of the skilled time-worker was even then being considered on behalf of the Ministry by a special committee,\footnote{See Vol. V., Part I.} whose report led in the course of the autumn to the notorious grant of a $12\frac{1}{2}$ per cent. statutory bonus on earnings to successive classes of time-workers. "Any cutting down of overtime," it was represented, "concurrently with the proposed increase in time-rates for skilled men, would be represented as taking away with one hand what has been given with the other. Serious discontent would be unavoidable." The Hours of Labour Committee had decided, in drawing up its recommendations, that no increase of hourly rates ought to be enforced to compensate for the limiting of overtime work. It was true that overtime earnings were often looked on by the time-worker as a standing bonus, which, to some extent, compensated him for his low income as compared with the piece-worker. He had, however, clearly no vested interest in the continuance of overtime work, though "overtime" was often claimed either as a right or a privilege on these grounds.

The consideration of a general curtailment of hours of work was therefore postponed till the beginning of the next year. The wages question had again impeded the "scientific" adjustment of hours of labour.

Meanwhile, the Health of Munition Workers Committee prepared and issued a summary of their latest conclusions with regard to hours of work for munition workers.\footnote{Memorandum No. 20, Weekly Hours of Employment (October, 1917).} In Memorandum No. 20 they recalled their recommendations made in Memorandum No. 5, issued in January, 1916. At that time, in the absence of definite data as to the relation of hours of work to output, and to fatigue upon the worker, the committee had recommended a maximum working week of 65 to 67 hours for men and boys over 16, and of 60 for women and girls. In the two years that had elapsed since the appointment of the committee conditions had changed:—

1. The strain of work and of the war had increased for all classes of the community.

2. In many cases the same work was being done by older or less fit men, or more difficult work was being done by women than they had attempted on their introduction to munition work.

3. Scientific investigation had shown conclusively that shorter hours, varying according to the nature of the work performed, in some cases definitely increased output, especially when the curtailment of the working day meant that no factory work was done before breakfast.

The Committee therefore in October, 1917, recorded its conviction "that the maximum limits of weekly employment provisionally suggested are too high, except for quite short periods, or perhaps in cases where the work is light and the conditions of employment exceptionally good." They therefore urged strongly, in the concluding
paragraph of their report, that "the time is now ripe for a further substantial reduction in the hours of work. If this be effected with due regard to the varying conditions prevailing in different branches of industry, they are satisfied that reduction can be made with benefit to health and without injury to output." The same recommendations were made in brief and dogmatic form in a small handbook, issued by the Committee at the end of the year, summing up in a compact form their principal conclusions, "for the benefit of directors, managers, foremen, and others in authority in munition works."

A practical object lesson in the effects of a short working week on the one break system was proposed in the course of the autumn. It had been urged strongly in some quarters in the previous September that instead of the 63 hour weekly maximum proposed, a week of 44 to 50 hours should be established experimentally in industries such as the manufacture of shells and fuses and shell filling. This was not held to be desirable; but an alternative proposal by Mr. B. H. Morgan, of the Dilution Section, for an experimental reduction of the working week to 48 or 50 hours in six National Shell Factories, for a period of four months—such reduction to be accompanied by careful record of output, individual and collective—was sanctioned by the Minister early in November. The proposal was not received with enthusiasm by the Boards of Management concerned when it was laid before them. They accepted it, however, when reassured as to the immediate effect of such an experiment upon local rates of wages, and the consultative committee of the Engineering Employers’ Federation raised no objection provided the working week was not less than 50 hours.

In September, 1917, when it was officially decided not to proceed further with the limitation of overtime for men, it was urged that the question of overtime employment for women should receive special consideration at once, since they were not affected by the contemplated advance in skilled time-rates. Accordingly, in January, 1918, the Hours of Labour Committee, after consultation with the Women’s Trade Union Advisory Committee, drew up and submitted to the

1 Health of the Munition Worker, prepared by the Health of Munition Workers Committee, 1917.

2 There were many administrative difficulties in getting the experiment of a 50-hour week under weigh, and it was ultimately fully carried out only at the Workington National Shell Factory, where a 50-hour week was introduced on 11 February, 1918, in place of the previous 53 and 52½ hour week. A comparison for two periods of 13 weeks before and after the change gave the following results. (Printed) Weekly, Report, No. 168, IX. (16 November, 1918).

<table>
<thead>
<tr>
<th></th>
<th>Before change</th>
<th>After change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours worked</td>
<td>130,916</td>
<td>119,827</td>
</tr>
<tr>
<td>Shells produced</td>
<td>44,000</td>
<td>45,500</td>
</tr>
<tr>
<td>Percentage lost time</td>
<td>8.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Time occupied per shell</td>
<td>2 hrs. 58 m.</td>
<td>2 hrs. 38 m.</td>
</tr>
<tr>
<td>Cost per shell</td>
<td>8/4.09</td>
<td>7/5.54</td>
</tr>
</tbody>
</table>

Within this limited field, therefore, the results of the experiment confirmed the thesis that a reduction of hours increases output.
Employers' Consultative Committee formal recommendations for a reform in the general Munitions Order of 1916, by substituting 13 for 14 hours as the maximum to be worked by a woman in any one day, and by the reduction of the maximum of 60 hours per week to 55½ hours per week for women engaged on the heavier classes of work. The practical effect of this reduction would be that where the double 12-hour shift system was worked only five full turns could be worked at night, and that employers would be encouraged to substitute for the longer "turns" double shifts of eight, nine, or ten hours, so that six day and night turns could still be worked if necessary.

This proposed limitation of hours coincided with past recommendations of the Health of Munition Workers Committee and with the regular practice of the Home Office in sanctioning schemes of work in the non-munition industries. There were, however, difficulties in shortening the daily or nightly periods of work for those women munition workers who, as "labourers" or as "skilled" toolsetters, turners, etc., were acting as assistants to men. It was on account of their fellow-workmen that the Ministry had been compelled to ask the Home Office to sanction 13-hour night shifts for women employed at Barrow and elsewhere, and that strong opposition was reported from more than one National Shell Factory when shorter hours for women were proposed in 1917. The difficulty was not of wide extent, for only 48 applications to employ women for more than a 12-hour night shift had been sanctioned at the end of 1917, and of these only 18 extended to the full 13-hour shift. Long hours were, however, in certain salient cases, the penalty that women had to pay for their invasion of "men's work."

Hours of work were generally shortened during the year 1918, although the requirements of the Army in March and April, 1918, inevitably produced a temporary return to overtime work. The adjustment of wages in proportion to a reduced working week was considered for women as for men, and a clause providing for this was submitted by the Department in January to the Special Arbitration Tribunal for insertion in the Consolidated Women's Wages Order of that spring. The clause was not, however, inserted, and the question was left indeterminate for women as well as for men munition workers at the date of the Armistice.

III. Shifts of Work and Night Work.

(a) The Pre-War Shift in Engineering Works.

At the outbreak of the war, work in engineering shops was normally carried on under the single shift system. The workmen spent from 7 a.m. to 6 p.m., or from 6 a.m. to 5 p.m. in the shop on the first five days of the week, and from 6 to 1 or 7 to 2 on Saturdays, with breaks of 1½ hour for breakfast and dinner. The actual distribution

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1 L.R. 6037/2. These Committees had been formed in the course of the previous year in order to keep the department in touch with organised employers and with women's labour organisations respectively. (Cf. Vol V., Part II.)
2 M.W. 6037/2.
of the hours of work varied in different localities, but the engineer
normally put in the 53 or 54 hours of his working week under this
system. 1 If there was a sudden press of work he worked overtime,
generally for an extra "quarter," i.e., from 5 or 6 p.m. to 8 or 9 p.m., at
"time and a quarter" or "time and a half" rates of wages. Local agree-
ments regulated the length of night shifts when these were necessary;
but the day shift of 11 hours gross or 9½ hours net, with a short day
on Saturday and evening overtime to be worked when necessary,
was the normal arrangement of the working week. This system
was carried on into the first period of the war, with the very important
modification that all limits on overtime were, by agreement between
the employers and men, suspended from August, 1914. It was thus
that the very heavy working hours, such as those at Woolwich, where
men on single shift were employed for many months from 6 a.m.
to 9 p.m. for six and seven days a week alternately, became possible
for skilled men.

(b) The Two-Shift and Three-Shift Systems.

On the establishment of the Ministry of Munitions, and the in-
auguration of the campaign for increased output and for dilution of
skilled labour, pressure was brought to bear on employers, as has been
said, to introduce a double shift system. Some firms had already
organised a regular night shift. It was pointed out to others, on
behalf of the Ministry, by office circular and by the labour officers and
area engineers, that only thus could the engineering machinery of the
country and the skilled labour available (both inadequate at the time
for the demands upon them) be fully utilised. The double-shift
system, with two shifts normally of 12 hours each, was therefore
increasingly adopted in the autumn and winter of 1915-16. The day
shift and night shift workers could thus hand over their job without
a break to their successors, so that work could be carried on without
interruption, an arrangement which had obvious advantages for the
foremen and those responsible for production. In some firms and
areas the 24 hours were divided into a day shift of 11 hours and a
night shift of 13 hours, and special sanction for such an arrangement,
in so far as protected persons were concerned, could be given under the
General Order for Munition Workers. This division involved a very
heavy spell of night work, but was said to have the advantage of leaving
intact previous working agreements, normally based on 11 hours
gross for the day worker, while it ensured an extra hour's pay at the
higher rates for night work to compensate for its inevitable drawbacks.

With the increasing introduction of women into the engineering
works, efforts were made—and were warmly encouraged by the
Minister—to spread the adoption of the system of three eight-hour

1 A few areas had by 1914 secured a 48-hour or 50-hour week with a single
daily break, and certain firms made a practice of demanding less than the
standard district working week from their men. This made a different system of
"breaks" possible, but did not otherwise affect the arrangements of the working
day.
shifts. Dilution Officers were instructed, after consultation with the Hours of Labour Committee, in February, 1916, to recommend the adoption of the three-shift system where possible in munition works and the Home Office, through its inspectors, continued its endeavours to bring before managers the advantages of an eight-hour day for women and girls. In their fifth memorandum—Hours of Work—issued in February, 1916, the Health of Munition Workers Committee noted with satisfaction the increasing use of this system. "It is the more important," the Committee wrote, "to establish the eight hours shift for women workers, because there are being attracted into munition works women who hitherto have been entirely unaccustomed to factory life, and who are on that account not unlikely to find the strain of a 12-hour day too great, while they could work readily and effectively through an eight-hour period." "Unfortunately, a shortage of workmen and the difficulties of supervision, as well as problems of housing and transit, to a large extent exclude eight-hour shifts from practical consideration, so far as male workers are concerned."

An advantage of the three-shift system from the point of view of the employer was that only one half-hour break was legally necessary during the eight-hour period. Allowing for three such breaks in the three spells of work, and for some waste of time at the change of shifts, yet the number of "machine hours" available during the 24 hours under such a system was clearly greater than under the system of two 12-hour shifts, in each of which two "breaks" of an hour and half an hour, with their inevitable accompanying dislocation of work, were legally required.

In spite of the possible advantages both to employers and employed, the three-shift system was not widely adopted in munition works, except in those producing explosives and in chemical works. Only a small proportion of the controlled establishments of the country employed three shifts of workers at any time, and a number of those which started doing so abandoned the system.

(c) Objections to the Three-Shift System.

The objections raised by employers turned chiefly on points of organisation: (a) the inconvenience caused to the foremen and toolsetters, since there was not sufficient skilled labour available for the separate supervision of three shifts of workers, and it would therefore be necessary for each section of the skilled workers to be responsible for one shift and half the succeeding shift—a division of labour which clearly gave opportunities for friction and misunderstanding; (b) the difficulty of working two systems simultaneously, since, even if the women workers wished for a short working day (and this was not invariable), the men employed were almost invariably anxious to work and earn for a full 12 hours shift, while it was very

1 M.W. 94863.
2 M.W. 87176; Cd. 8276 of 1916.
difficult to synchronise the coming and going of two sets of workers;\(^1\) 
(c) the question of housing accommodation. It was true that the 
large available surplus of women ready to work on munitions made it 
comparatively easy to secure the increased number of workers neces-
sary for three rather than two shifts; but the congestion of lodging and 
railway accommodation in the large munition areas constantly made 
the importation of further numbers of women a serious problem. 
This housing difficulty was quoted by Messrs. Vickers at Barrow, and 
by the management of the Huddersfield National Shell Factory as a 
main reason for changing from a three to a two-shift system; and it 
was pointed out to the Hours of Labour Committee, in May, 1916, 
by the Chief Superintendent of Woolwich Arsenal, that this obstacle 
made it quite impossible to adopt their suggestion for the introduction 
of eight-hour shifts among the women employed there. Where special 
provision could be made for housing and transit this objection was 
removed. Thus at Gretna a large proportion of the many thousand 
operatives, for whom the Ministry constructed a special colony among 
the moors, could without difficulty be employed on three eight-hour 
shifts.

Women workers also, paradoxically, often opposed the introducti-
on of the system which was destined to secure them a shorter working 
day, giving the following as their reasons:—The possible loss of wages; 
the upset of family life, since it was impossible for the worker so 
employed to have meals at the same time as other members of the 
family employed under more normal conditions; the fatigue of doing 
the housework which was expected before or after the eight-hour 
shift, whereas, under the longer system even the mother of a family 
of children had often perforce to evade domestic work after factory 
hours; the inconvenience of the hours for coming on or off duty, 
especially for those on night shift, who would start at 10 p.m. or 11 
p.m. and come off at 6 a.m. or 7 a.m.; and the complaints made by 
landladies and managers of hostels over the variable hours at which 
the three-shift workers left and returned to their lodgings.

\(^1\) Thus, Messrs. Vickers in May, 1916, submitted the following time table, 
illustrating the extreme inconvenience of the scheme of work then in force at 
Barrow, with the men on a 12-hours' and the women and girls on an 8-hours' day:

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6 a.m., men change shifts.
6.30 a.m., girls change shifts.
9 to 9.30 a.m., breakfast (for all workers).
12.30 to 1.30 p.m., half the men go to dinner.
12.30 to 12.37 p.m., girls have seven minutes break.
1.30 to 2.30 p.m., half the men go to dinner.
2.30 p.m., girls change shifts.
5 p.m., men change shifts.
5.30 to 6 p.m., girls' tea interval.
8.20 to 9.20 p.m., half the men go to supper.
8.30 to 8.37 p.m., girls have seven minutes break
9.20 to 10.20 p.m., half the men go to supper.
10.30 p.m., girls change shifts.
2 to 2.30 a.m., late supper.
4.30 to 4.37 a.m., girls have seven minutes break.
6 a.m., men change shifts.''
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These practical and domestic difficulties could be illustrated in detail by the experiences of a number of firms—notably Messrs. Vickers at Barrow and Erith, and the Huddersfield and Leeds National Shell Factories—which in the course of 1916 asked and obtained the reluctant consent of the Department to change from a three-shift to a two-shift system.\(^1\) Such changes, only sanctioned after full inquiry by the Home Office, and on the assurance of the acquiescence of the majority of the employees in this extension of their working day, showed the difficulty in applying even tested theories of betterment to industrial conditions in war-time.

As a whole, the experience of the three-shift system of working was not very encouraging, though the explosives works carried it on with success; and the National Projectile Factories of Messrs. Hadfield at Sheffield and Cammell Laird at Nottingham dealt successfully with the difficulty of combining a 12-hour shift for men with an 8-hour shift for the women employed.\(^2\) The small extent to which it was adopted affords no precedent for industrial organisation in times of peace, since the main drawbacks to it came from the special war conditions of shortage of skilled workmen, which involved them in a longer working day; of urgent demand for output, which made it difficult to arrange the change-over of shifts so as to ensure a complete Sunday rest; and of the difficulty of housing the extra number of employees required in towns already overcrowded with war-workers. The failure or success of the three-shift system in the production of war material is obviously no criterion for the desirability of the eight-hour day under normal circumstances.

The adoption of a double ten-hour shift, involving nine hours actual work per day and a 50-hour week, was tried increasingly, and with success, in the later stages of the war, both in some of the national factories and by private firms. The nine-hour day had the advantage,

\(^1\) C.E. 1013/13; C.E. 1017/13; C.E. 573/13; C.E., 718/13.
\(^2\) An example of the successful “synchronising” of the 8-hour shift for women with the 12-hour shift for men is given in detail, and may be compared with the unsuccessful attempt recorded above. (The women here were on piece-work and only actually employed for 6½ hours on two shifts. Men were the supervisors on time rates.)

*Leeds National Ordnance Factories, Armley and Hunslet (1918).*

**Women:**
- 6 a.m. to 1 p.m.
- 2 p.m. to 9 p.m.
- 10 p.m. to 6 a.m.

**Men:**
- 6 a.m. to 6 p.m.
- 6 p.m. to 6 a.m.

- 6 a.m., in together.
- 9 to 9.30 a.m., breakfast together.
- 1 p.m., men off to dinner. (Shops then clear.)
- 2 p.m., men and second shift of women return together.
- 5.45 p.m., women to tea.
- 6 p.m., men’s day shift come out.
- 6.15 p.m., women return from tea. (Men’s night shift then at work.)
- 9 p.m., men and women off together.
- 9 to 10 p.m., men to evening meal.
- 10 p.m., third shift of women come on, together with men.
- 1.30 to 2 a.m., off together for a meal.
- 6 a.m., men and women change shifts.
from the employers’ point of view, of only necessitating one break for meals, and from that of the worker of avoiding work before breakfast.

The extent to which single, double, and treble shifts were actually worked in national factories during the longest period of continued pressure for output, is summarised in Appendix IV.

(d) Night Work for "Protected" Persons.

The General Munitions Orders of 1915 and 1916 had made heavy inroads into the safeguards provided by the Factory Code for boy and girl workers, and pressure on individual firms and trades made it necessary for the Ministry to acquiesce in, and for the Home Office to sanction by special orders, still further exceptions to these safeguards.

Boys’ Work. By the General Munitions Orders of both 1915 and 1916 no boy under 16 might be employed on night work except with the approval of the superintending inspectors of factories, who were instructed that such employment should "be avoided as far as possible." According to a Home Office report of May, 1916, leave had been given, "and was then in force," for night work by boys under 16 in 39 cases at Manchester, 35 at Leeds, 8 at Glasgow, 40 at Birmingham, 12 at Bristol, 35 in the South-Eastern district.1 Boys under 16 were regularly so employed at the same time at Woolwich.

During the preparation of the new general order for munition workers by the Home Office in 1916, proposals for limiting the power of the superintending inspectors to give special permits to firms for night work by boys under 16 were considered in detail. But after local inquiry and consultation between Home Office inspectors and the Ministry’s area engineers, it was agreed to leave the discretionary powers of the inspectors unaltered.2 Some firms found that boys appeared to prefer the high pay and comparative freedom from discipline of night work, and worked as well as or better than their elders; others, such as those working for the Trench Warfare Department at Glasgow and Newcastle, stated that the employment of young boys at night was at the best "a disastrous makeshift" from the point of view of the employer. "Boys when used in this way seem to imagine that night work is not so stringent as that of the daytime, and the foremen complain that they need much more looking after in consequence. ... Masters seem to find boys of this age almost impossible to deal with. Boys go out on strike and hold up the whole of the shop and seem more trouble than any other wage earning class."2

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1 M.W. 49529/6.
2 A well-known Surrey firm in applying in June, 1916, for a special exemption order for their workers, asked leave to give only two half-hour breaks instead of the hour and a half usually necessary in a 12½ hour night shift to their boy employees between 14 and 18. "The boys would misuse longer meal intervals; they had already destroyed a neighbouring farmer’s property; the night watchman now locked them into a room during meal times, where they gambled and smoked." (A representative of the Welfare Section was detailed to interview the firm in this case.) (M.W. 117901.)
In spite, however, of drawbacks both of discipline and health, the power to permit the employment of such boys at night was still necessarily retained, since their labour was in certain firms said to be indispensable to the men with whom they worked. Boys over 16 were allowed, without question, to do work under the normal 12-hour shift system, with its possible variation of a 13-hour night shift and an 11-hour day shift.

In the autumn of 1917 the Hours of Labour Committee, after the failure of the attempt to limit overtime for men, considered the possibility of diminishing the employment of boys under 18 at night. The consideration of such employment for boys over 16 was postponed until the question of men's hours could be considered, on the ground that it was hardly possible to separate their work from that of men. There were at the time, however, 14,000 boys of 14 to 16 years of age employed at night in national factories and controlled establishments. Of these about half were working as assistants to men. Some 4,000 were so employed, under the normal provisions of Sections 54 and 55 of the Factory Act, in iron mills, blast furnaces, etc., while 10,000 were working, mainly in small arms ammunition, shell, and fuse factories, under the special provisions of the General Munitions Order.1

The Hours of Labour Committee drew up detailed proposals, which were approved by the Supply Departments concerned, for further restrictions on night work by boys under 16, and laid them in January, 1918, before the Engineering Employers' Consultative Committee for their comment. The latter, however, opposed the alteration on the ground that boys employed in shipbuilding and marine engineering were expressly excluded from these proposals and that there should be no differentiation between different classes of boys; while the Shipbuilding Employers were equally clear that with the existing pressure for output there should be no curtailment of the hours worked.2

Girls' Work. Night work was permitted, under the General Munitions Orders of 1915 and 1916, for girls over 16, but only under narrow restrictions. Under the three-shift system their employment for an eight-hour night shift was allowed; under the two-shift system, which was far more frequently adopted, they might, according to the general order of 1916, only be employed for a twelve hours night shift, subject to the approval of the superintending inspectors of factories.

In the early stages of the war, girls of 14 and 15 were employed at night on munitions work; and even after the general order of 1915 came into effect, instances of such work were at intervals reported to the Ministry of Munitions. In each of these cases, stringent directions were sent that such employment must cease as soon as the firm

1 L.R. 5321, and Parliamentary Debates (1917), H. of C., XCIX. 1017.
2 L.R. 5321; L.R. 6037/4.
could find substitutes. Night work by girls between 16 and 18 never reached a high figure in national factories and controlled establishments. In November, 1917, it was stated in the House of Commons on behalf of the Home Office that about 8,000 girls were so employed, mainly in small arms ammunition and fuse factories, but that none of these were under 16 years of age. The Hours of Labour Committee represented to the Employers' Consultative Committee in January, 1918, that no further girls should be engaged for night shift work and that steps should be taken to stop within three months the employment of those under 17, at present working at night, on any longer night shifts than eight hours. No regulations were made on the subject, but the Home Office took steps to restrict by administrative action the employment both of boys and girls at night to the lowest point practicable.

Women's Work. Night work was only permitted for women, under the General Munitions Orders, for six nights in the week and for a weekly maximum of 60 hours. The curtailment of these night shifts to five per week was strongly urged by the Hours of Labour Committee at the close of 1917. In both general orders provision was made that such employment should be, in the case of all "protected" persons, "subject to the provision, to the satisfaction of the factory inspector, of proper facilities for taking and cooking meals, and in the case of female workers, for their supervision" by a welfare worker or a responsible forewoman. It was explained by the Home Office, in the covering letter to the order of 1916, that much importance was attached to this provision, and that "arrangements of a high standard would be insisted on." Firms were referred to the memorandum on Welfare Supervision drawn up by the Health of Munition Workers Committee, and were informed that the Welfare Branch at the Ministry of Munitions would be glad to furnish names of persons suitable for appointment as welfare supervisors. The introduction of night work among women and boy and girl munition workers was, therefore, directly accompanied by the spread of the welfare policy in industrial management.

IV. Holidays.

In 1915 and 1916, at the instance of the Ministry of Munitions, the holidays of munition workers were both postponed and curtailed, in order that there should be no shortage in the supply of munitions. The connection, obvious though hard to reduce to statistics, between

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1 In the case of a large Birmingham firm employing a considerable number of girls under 16 as late as 1917, the management protested that their labour was essential to the older women because their fingers were nimble and specially adapted for the light work required; that every provision was made for their welfare, and that they actually suffered less by night work than their elders. In this the factory inspector concurred. These young girls were "always bright and alert at their work. The difference between them and the older hands between 5 and 6 a.m. was remarkable. Older girls suffered most from night work because they spent too much of their free time in shopping and recreation rather than rest." (C.E. 607/13.)

2 Parliamentary Debates (1917), H. of C., XCIX., 1017.

3 L.R. 6037/4.
holidays, industrial fatigue and factory output, brings the special regulation of the first of these within the scope of the Department’s policy about hours of labour in munition works.

The process of changing the recognised holidays proved to be curiously complicated (owing to the interdependence of the munition and non-munition trades, and the extent to which holiday arrangements are interwoven with the social life of the country), and involved two series of representative conferences both in London and the provinces with employers and employed, two royal proclamations, a special order under the Defence of the Realm Act, and two orders under the Munitions (Ordering of Work) Regulations.1 The results may be summarised briefly as follows:—

During the summer of 1915 the Ministry of Munitions issued letters to the small number of munitions firms then controlled, and to a number of uncontrolled firms, urging that not more than a week’s holiday, or three days in the case of machine tool firms, should be taken.2 In some cases hardly pressed firms made their own arrangements with their men for a shortened stoppage of work; in others, such as some of the Clyde firms, the week’s break extended to ten days. At the end of the year special efforts were made to ensure that the holidays should be the minimum necessary for the health of the workers, and circulars were sent by the Ministry to all controlled establishments urging that not more than three or four days’ holiday in all should be given or taken at Christmas and the New Year. At Easter, 1916, the holidays were, by the recommendation of the Ministry, limited to three days. This amount was generally taken south of the Tweed, and in some cases exceeded by individuals or firms strained by overwork. As a result there was a heavy drop in the output of shell and other munitions urgently needed by the army. Accordingly at the end of May, after explanations of the position by the Minister and the Secretary to the Admiralty at hastily summoned conferences of employers and trade unionists, arrangements were made for the postponement (by royal proclamation under the Bank Holiday Act of 1875) of the Whit-Monday Bank Holiday to August, while as far as possible the intervening holidays held in normal times in June by some districts and by the Royal Dockyards were stopped. This stoppage of holidays was intended to apply to all workers, including the teachers and children at the elementary schools, and not only to the makers of munitions. The representatives of employers and workmen acquiesced readily in the change, and undertook to explain the need for it in their own localities. Dr. Macnamara’s question at the trade union conference of 29 May, “How will they be spending Whit-Monday at Verdun, at Vimy, at Souchez, at Ypres, at Kut-el-Amara? ” admitted of only one application when the munition workers were assured that unbroken output was essential. The men’s leaders, indeed, showed some resentment, as in previous discussions on good or bad time-keeping among their members, that there should be any

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1 M.W. 56790; M.W. 89791 and sub-files; M.W. 127166 and sub-files.
2 M.W. 54954; M.W. 87991.
suggestion that workmen as a body were taking more holidays than were necessary, and that, therefore, special public appeals were required. "There is an impression going abroad that the workers are not interested," said the secretary of a union whose members had been doing much and continued overtime work in shipbuilding. "The great bulk of the workers are just as much interested as you (the Minister) are yourself."

Arrangements were therefore made in detail by local conferences throughout the country for the dates at which the postponed holidays should be held, a subject requiring considerable negotiation, since the holiday makers of the crowded industrial areas must, perforce, travel at different dates. In the middle of July, however, it was decided by the Ministry of Munitions and the Admiralty, on the strong recommendation of their supply departments, that the August holiday must be postponed till the end of the summer, by which time it was hoped that the needs of the summer offensive would be satisfied. A further series of conferences arranged the details of this postponement, which was accompanied by a proclamation, based on a new regulation under the Defence of the Realm Act; while posters, containing facsimiles of a message from the Commander-in-Chief and cartoons illustrating enemy trenches before and after bombardment, were despatched to controlled establishments. Many trades and areas sacrificed their local summer "wakes" and "weeks," as well as their statutory holidays, although employers in, for example, the textile and dye trades protested in advance that it would be difficult to convince their workpeople that they, like the munition workers, were helping to "win the war" by so doing. No compulsion was applied on either occasion to induce any class of worker to forego their holiday; but the Department guaranteed the payment of wages at extra rates for some portion of the abandoned holidays, and thereby became involved in the complications of local and trade variations in such payment throughout the country.¹

Attempts were made by the Department at the beginning of August to arrange or recommend "relay" holidays for factory workers, but no scheme that was really practicable could be devised. Towards the end of the month a considerable number of workers, both in the munitions and non-munition trades, took unauthorised holidays—the first, in a good many cases, after continuous overtime work since Christmas. At the end of September the pressure for output lessened, and a final regulation, issued under Section 4 (5) of the Munitions of War Act, provided that three days' rest should be given to the workers and the staff of controlled establishments on 28, 29 and 30 September.

¹ The Department undertook that extra payments thus made should, under certain conditions, be allowed to employees as an expense to be deducted in determining the profits under the Limitation of Profits rules. (M.W. 89791/15. M.W. 1271/66.) Considerable friction was caused in some districts in deciding the rates at which the holiday payments should be made, especially in unorganised trades with ill-defined agreements. The Committee on Production arbitrated in two or three cases of such disputes. (Cf. Award 431 of September, 1916, and A.S.E. Journal, September, 1916.)
There was no further general curtailment of munition workers' holidays, although workers at special times of pressure (e.g., at Easter, 1918) spontaneously put in extra work in certain trades. At Christmas, 1916, directions similar to those of the previous year were sent out to controlled establishments, providing either for three or four days’ rest or for two clear week-ends, and arranging for cheap fares for munition workers during the holiday period. In July, 1917, the Commission on Industrial Unrest reported strongly on the need of further rest for workers, to which the Health of Munition Workers Committee had earlier drawn attention; and the Department indicated its desire that the normal summer holidays should be taken by munition makers.

The machinery used to induce the workers to forego their holidays was, as has been said, complicated; but this was because the suspension of holidays was voluntary, and was arranged at short notice among very large numbers of workers. The suspension was a trivial matter compared with the reasons that led the supply departments to require it; but it coincided with what was probably the hardest period of Sunday and overtime work, and it cut with great completeness across the workers' domestic life, trade union traditions or lack of tradition, and local custom. In the non-munition trades, especially in the North of England, the second suspension was only partially observed, if at all. With many of the munition workers the sacrifice of holidays was made with enthusiasm for the men at the front. With the exceptions who insisted on their holiday, this was in some cases the result of fatigue; in others it was probably due to the conviction (common in other problems that appeared after August, 1914) that the action of one individual or of a group could not possibly affect the progress of the war.¹

V. The Movement for a Shorter Working Week in 1918.

(a) The Wages Question.

The proposal for a general shortening of hours either by limiting overtime or by altering the agreed working week to 50 hours was held up in 1918, partly on account of the renewed pressure of demand from the forces which in March, 1918, made it inevitable that overtime

¹ On 26 March, 1918, appeals were telegraphed from the Minister to firms producing certain types of guns and shells as well as tanks and machine-guns, calling on them not to cease work during the Easter holidays and acknowledging the "spontaneous assurances already received from the men in many districts that there will be no loss of output." "Now is the time," concluded the message, "to show the fighting army what the industrial army can achieve."

The following was one of many replies received:—

"Sir, In answer to your appeal to Munition Workers to give up their Easter Holiday, I would like to say that we [at Park Royal] do so without a murmur; proud to make some slight sacrifice in this our solemn hour. Know that, whatever the needs of our army, we women of England will never desert her, never, never, never. God save our King and Country.

Yours truly, A. B. (A Worker)."
should continue to be worked in certain industries, especially in the production of aircraft, small arms ammunition and tanks, but also, and fundamentally, on the ground of wages. Demands for increased wages in the munition trades were normally refused by the Committee on Production in 1918, except in so far as the 12½ per cent. and the 7½ per cent. advances of the previous autumn and winter permeated to almost all munition workers. A tendency therefore began for the men to ask for a shorter working week with unchanged weekly wages. In some cases this was a revival of the pre-war movement referred to in the previous chapter; in others it was virtually a demand in a different form for higher wages, since the actual hours worked per week must apparently remain unchanged so long as the war lasted, and a shorter “normal” week would mean the earlier beginning of payment at overtime rates. This opened very important questions as to standard hours and wage rates—questions which had been left in abeyance during the war, but which it became increasingly clear must be faced immediately the war ended.¹

The Engineering Employers’ Consultative Committee in December, 1917, expressed to the Department, as has been explained, their acquiescence in an experimental 50-hour week in National Shell Factories (without reduction of pay),² and in the summer of 1918 the Bradford Engineering Employers’ Association arranged for their district a 50-hour week, also without reduction of pay, “piece rates to be settled by mutual agreement,” while the Huddersfield branch renewed a similar agreement made the year before. Further reductions of hours were being widely asked for in trades without as well as within the sphere of munitions;³ railway engine drivers agitated for a 48-hour week in August, 1918; coalminers in Scotland and South Wales were asking for a shorter week at the same time; the Joint Committee of the Scottish Parliamentary Committee of the Trade Union Congress, with the Scottish Advisory Council of the Labour Party, issued in the same month a manifesto asking for a 44-hour working week in Scotland (hours, 8 to 12 and 1 to 5 from Monday to Friday, 8 to 12 on Saturday, with 20 minutes break in each spell), and urging that the Government should institute a strong Committee to inquire into the subject “with powers to act speedily.” At the last recorded meeting of the Hours of Labour Committee on November 5, 1918, it was agreed to press for a vigorous departmental inquiry into the working of the “one-break” system (in connection with the proposed 8 or 9-hour day) and the relation of hours to output. This was the more desirable since, partly owing to this question of wages, the proposed experiment in the establishment of a 50-hour week in selected national factories had been only to a small extent effective.⁴

¹ The Committee on Production on 13 July, 1916, in the case of the Clement Talbot Co. and the A.S.E., definitely refused to take up the question at that time. (L.R. 6037/2.)
³ L.R. 6037/34, etc.
⁴ L.R. 6037/44. Cf. p. 121.
(b) The Position in November, 1918.

At the date of the Armistice there existed a very widespread desire in all trades for a shorter working week—a desire which was receiving active expression by the workers of other countries—and also a considerable amount of isolated evidence—analysed in some cases by expert physiologists, and borne out in others by the experience of firms both in war and peace—that shorter hours produce, *ceteris paribus*, increased output. There was, however, no comprehensive body of evidence on this point, and employers as a whole were by no means convinced as to its truth. ¹ There was, further, a general agreement among workers that no reduction of the week’s wages must accompany such a reduction of hours, and that hourly wages must therefore rise. The relation of piecework payments to hours of work and output must obviously vary in each trade and in almost each works (as the Yorkshire coal strike of July, 1919, showed), and there was therefore less unanimity about the required alteration of piece-rates.

The proposals for a shorter week, based on the general desire for more leisure, involved very difficult problems of the settlement of wages and the incentive to industrial efficiency under normal conditions. It was inevitable that the Ministry of Munitions should, in its control of the wages and hours of munition workers, come to some extent into contact with these pre-war (and post-war) problems; but their solution was clearly outside the province of a temporary Department established to meet abnormal needs. ²

(c) The Suspension of Exemptions in 1919.

The wholesale reduction of hours of work consequent on the Armistice made it obviously unnecessary to maintain a system of special sanctions for overtime work, or an interdepartmental committee to consider such sanctions. On 5 December, 1918, the Home Office, in correspondence with the Ministry of Munitions, raised the question of revoking the general exemption order of 1916 for munitions works, and, on 26 February, 1919, reported, after inquiry by the Factory Inspectors, that the overtime concessions under the order were by that date hardly used at all, and that the regulations as to shifts were effective only “in a comparatively small and rapidly diminishing number of cases.” No inconvenience or hardship would be given by the revocation of the order. The Home Office therefore revoked the order (with the concurrence of the Ministries of Labour and Munitions) as from 29 March, 1919, leaving it to any individual firm to apply for latitude in case of need.

So ended the period of abnormal employment.

¹ Cf. the establishment in 1918, on the invitation of the Home Office, of the “Industrial Fatigue Board,” by the Department of Scientific and Industrial Research and the Medical Research Committee.

² In claims under the Fair Wages clause, the Department was occasionally called upon to determine the length of the normal working week, when workmen such as builders and cabinetmakers, with different working rules, were engaged together upon, e.g., boxmaking. These were, however, exceptional cases. In the aircraft trade, the same difficulty of “mixed trades” with varying standards of hours reappeared, and was met in part by the Skilled Aircraft Workers Order of Feb. 8, 1918. [L.R. 4914, etc. See Vol. V., Part I.]
CHAPTER VII.
TIME-KEEPING.

I. The Problem of Lost Time.

(a) Position Before the Munitions of War Act.

The second of the model rules for controlled establishments, issued in the interests of "a proper standard of efficiency" under section 4(5) of the first Munitions of War Act, provided for the enforcement of good time-keeping.

"Every person employed in the establishment, whether on time, piece, or otherwise, shall attend regularly and work diligently during the ordinary working hours of the establishment, and a reasonable amount of overtime, if required, unless he has previous leave of absence for holidays or otherwise, or is prevented by sickness or some other unavoidable cause which shall be immediately reported."

Complaints of the breach of this rule might be made before a local munitions tribunal, either by an employer or on behalf of the Ministry of Munitions, and fines up to £3 might be inflicted by the tribunal.

This was the new disciplinary machinery added by the Department to the varying methods of dismissal, suspension, exclusion for periods of the working day, small fines within the limits of the Truck Acts, and loss of time-keeping bonus, by which employers had before the war penalised irregularity of attendance by their workers. The shortage of labour during the war rendered the first of these penalties almost useless, in so far at least as skilled and fit workmen were concerned; the second again was difficult to enforce in the case of a pivotal man, whose absence might hold up others' work, and the remainder were admittedly only of moderate efficacy. Earlier volumes of this history have described the storm of criticism of the workers' time-keeping aroused in May, 1915, by the publication, during the total

1 The Department discouraged the use of suspension as a penalty, at least among skilled men, in so far as it was brought to its notice. Thus in September, 1915, Messrs. Hans Renold, Salford, were refused permission to substitute in their works rules the suspension of an offender for his prosecution before a local tribunal, on the ground that in the present state of the labour market and need for production the Ministry could not countenance such loss of time. (C.E. 808/2.)

As late as June, 1918, the employees of a South Wales firm alleged before a munitions tribunal that they had been suspended from work for a day because they had been absent from work the previous day without leave, and claimed that therefore their contract of service had been terminated. The firm stated that one of their works rules gave them the right to prohibit employees who lost a day from working the next day. The tribunal dismissed the men's claim, but the chairman criticised the rule strongly. (Printed) Weekly Report No. 148 IX, (29 June, 1918).
prohibition campaign, of the white paper, "Bad Time kept in Shipbuilding, Munitions and Transport Areas," and the answering comments of labour in Parliament and through the trade union leaders; the establishment of the Central Control Board, with its constructive treatment of one cause of lost time; and the local schemes for the reduction of lost time drawn up in the early summer of 1915 by the Armament Committees on the Clyde and Tyne. The establishment of munitions tribunals, consisting of an "appointed" chairman and assessors, the latter representing employers and labour, was agreed on in consultation with the men's leaders, largely in the interests of workshop discipline, and model works rules were, after consultation with the two principal employers' federations concerned and with the National Advisory Committee, issued in August, 1915, providing for the maintenance of workshop discipline under the headings of obedience to orders, co-operation in the suspension of trade union restrictions, and sobriety, good order and time-keeping.

The last of these was, throughout the war, the heading under which by far the larger proportion of charges for the breach of works rules were brought before the tribunals.

The further intervention of the Department into a matter so domestic as that of the regularity of attendance of men and women at work, is an illustration of the unprecedented but yet limited State regulation of labour which was evolved in the relation between the Ministry and the controlled establishments.

(b) Early Attempts under the Ministry to Improve Time-keeping.

In the months immediately following its establishment, the Department took little administrative action to improve time-keeping. A number of wholesale prosecutions of workmen by their employers took place before the tribunals under the model rules in the course of the autumn, and supplied the Press with telling but not really representative details of the cumulative loss of time among munition workers, especially in shipbuilding.

When managers, generally of small firms, at this period consulted the Department as to the improvement of their workers' time-keeping, their attention, if they were controlled, was either drawn to the

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1 See Vol. IV., Part II., Chap. I.
2 Thus a great shipbuilding firm (Cammell, Laird) on 18 September, 1915, at a prosecution of 69 platers, drillers and electricians, stated that the average number of their workmen per day who lost a "quarter" was 1,552, and besides this 1,090 men lost a whole day per week. This represented a total loss of possible working days during a continuous period of over 1½ millions, and a week's work of over 20,000 men. (As against these portentous figures, it was urged on behalf of the men that they had recently completed a battleship in four and a half months within the scheduled time). (C.E. 292/5.) A month later the same firm reported that on the last Monday for which records were available, out of 11,400 men on the books, 3,820 were absent during the first quarter, and 1,200 of these did not come in for the whole day. (Liverpool Journal of Commerce, 22 October, 1915.) Messrs. Vickers, at Barrow, produced similar statistics before the local tribunal in October, 1915.
possibility of prosecution before a tribunal, or hortatory letters were despatched for transmission by the firm to offenders. In the case of uncontrolled establishments, printed copies of an appeal for increased production, drawn up in July, 1915, by the National Advisory Committee, were sent to bad time-keepers, or the latter committee asked the delinquent's trade union officials to use their personal influence for his improvement. The labour officers appointed in August and September to represent the Ministry locally were directed to interview and admonish bad time-keepers, but their manifold duties of dealing with labour disputes, promoting dilution and supplying information to headquarters about munition workers' badges and the instalment of War Munition Volunteers, did not in 1915 leave them leisure, except at Glasgow, for much work in this direction. A speech made by the French Minister of Munitions (M. Thomas) on a visit to England, and a report on the output of munitions in France, which stated incidentally that in that country "loss of time was practically negligible," were issued in order to stimulate the British worker, and Members of Parliament were despatched by the "Munitions Parliamentary Committee" to make dinner-hour appeals to workmen for the highest possible output. By the end of the year, however, the following conclusions became clear: (1) that the great majority of workers were, by the employers' reports, "doing splendidly," and that the minority who lost time were not affected by wholesale appeals to their patriotism; (2) that prosecutions before the tribunals were having some deterrent effect; and (3) that the long standing problem of lost time in factories, brought into sudden prominence by the war, involved highly complicated questions as yet quite insufficiently explored.

(c) Some Causes of Bad Time-keeping.

Employers consulted by the Department during the war ascribed bad time-keeping, in itself an elastic term, to some of the following causes: sickness and accident (the most frequent cause, but obviously hard to define); transport difficulties (also a very common cause); bad weather, especially for outdoor workers; shortage of material; ill-health of discharged soldiers (in the later stages of the war); domestic duties of married women; old age and infirmity; indifference or lack of imagination; drink (it was stated that loss of time was certainly diminished by the operations of the Central Control Board); overtime and Sunday work resulting in the loss of "morning quarters"; after effects of holidays and of air raids; high wages, and the separation allowances of soldiers' wives.

Clearly it was very difficult to classify such heterogeneous influences. Attempts to make a primary distinction between them as avoidable and unavoidable required very careful discrimination, owing

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1 Cf. M.W. 48883, M.W. 55918.
3 French Munition Workers' Sacrifices and Aims: A message to British Workers from the French Ministry of Munitions (October 6, 1915), and Report on the Output of Munitions in France. (Cd. 8187, 1916.)
4 Hist. Rec./H/345/1.
to the differing standards of definition and the imperfect records of many firms. Even in the case of sickness, variations in the form of medical certificate, if this was required, often made returns invalid, and wholesale statistics as to lost time, even those supplied by controlled establishments as a basis for investigation, must, as the Department admitted, be received with extreme caution. Three reasons for loss of time, however, stand out during the war period, and may be kept in view in considering the attempts of the Department to improve time-keeping among munition workers.

**Difficulties of management.**—The very large number of new workers engaged, and the constant leakage among them, despite the leaving certificate regulations¹; the loss of foremen, the appearance of new managers and staffs, and the indefinite expansion of existing staffs; the need for engaging and retaining workers who on grounds of morals, efficiency and physique would not have been engaged for similar work before the war—these things often made the maintenance of good "tone" in a workshop difficult, and showed up any latent weakness in the powers of foremen and under foremen to enforce discipline under the circumstances. ("Time sheets often reflect the character of the management," it has been said, and the incursion of the State into the domestic concerns of workshops, with the publicity given to tribunal cases, threw a flood of light on the highly variable character of contemporary workshop organisation.)

**Health.**—Men and women worked admittedly over-long hours, although it was hard to prove statistically a connection between overtime work and lost time. The men were, as the war went on, more and more of a low physical category, or, if over military age, were tried by persistent long hours of work. Lost time investigations pointed clearly to the need for further study of industrial hygiene.

**The personal factor.**—Lost time was, as was early realised, in part due to the faults of character or lack of imagination of the worker; to his (or her) inability to realise the cumulative effect of abstinence from work by many people, and his reluctance in certain cases to exert himself further after his standard of living was satisfied by his earnings. In this respect the problem of lost time was partly psychological, partly a reflection on existing methods of payment for labour.

¹ Thus in a large and exceptionally well organised London engineering (shell and ordnance) works, the following figures were given as late as 1918 in *Engineering*:

**Length of service of 2,878 present workmen.**

<table>
<thead>
<tr>
<th>Per cent.</th>
<th>Own accord</th>
<th>To join H.M. Forces</th>
<th>Continued absence</th>
<th>Expiry of notice</th>
<th>Summary dismissal</th>
<th>Deceased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three years and over</td>
<td>449</td>
<td>608</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two years and under three</td>
<td>865</td>
<td>253</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>One year and under two</td>
<td>526</td>
<td>802</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Six months and under one year</td>
<td>415</td>
<td>146</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under six months</td>
<td>623</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1,965

These figures compared favourably with those for the women employees.
II. Administrative Action.

(a) Organisation in the Department.

A small department was formed as a section of the Secretariat in January, 1916, under Sir Maurice Levy and Mr. H. O. Quin, to deal with time-keeping in controlled establishments. Its officers at first concentrated on obtaining information by visits to industrial areas, by discussion with employers and workers, and by statistical inquiry, as to the extent to which bad time-keeping was a serious problem in the supply of munitions.¹

The general questionnaire (L. 31) sent out monthly to controlled establishments, and returnable under section 4 (3) of the Munitions of War Act, contained clauses requiring information as to the amount of time lost by munition workers. It was found in these returns that over 80 per cent. of the time-keeping in controlled establishments was held by employers to be quite satisfactory. In September, 1916, and subsequently, a separate questionnaire was sent out by the Time-keeping Section to firms which had not hitherto replied or about which special information was desired.² If more than 5 per cent. (later 4 per cent.) of time was lost per employee, or if the number of individuals losing over six hours per week was very high, a letter of inquiry was sent to the firm, and recommendations were made, if this seemed desirable, either for a formal admonition by the firm, reference to the representatives of the offender's trade union, or prosecution by the firm or the Ministry of Munitions. Alternatively, attempts were made to remove obstacles such as travelling difficulties, or to induce firms to suspend rules for admission which appeared overstrict for war-time. Detailed replies had been received by the end of November, 1916, from 2,648 firms, in 340 of which over 5 per cent. of time was lost.

When the local organisation of the Ministry was rearranged and developed in November, 1916, with the appointment of separate dilution and investigation officers for each of the eight administrative areas, it was made one of the duties of the latter group of officers to attend to questions of time-keeping in munition works. A new and more definite policy then developed. The investigation officers were supplied with the names of firms in which, according to the monthly returns to headquarters, time-keeping was bad. They were directed to visit the controlled establishments concerned and to discuss with the management the causes of irregularity; to interview, with the firms' permission, the individuals who were keeping bad time, to inquire from them their reasons, giving full opportunity for excuses, and, with

¹ Hist. Rec./H/345/1.
² The questionnaire (MM 72) asked for the number of (a) employees; (b) persons on overtime and hours of overtime actually worked by such persons; (c) hours of normal working time lost (i) through all causes, (ii) through sickness, accident, or leave of absence; (d) employees losing more than six hours per week from causes other than sickness, lack of material, etc. It also required (e) the normal weekly working hours of the firm; (f) its rules for the admission of late comers; (g) general remarks, e.g., as to delay caused by journeys or as to the special classes of workers affected. A monthly report on "Time-keeping in controlled establishments" was based on these returns and printed for official use.
the firms' consent, to admonish them when in fault, or to warn them formally of the probability of prosecution, at the same time "endeavouring to enlist their sympathies in favour of good time-keeping with a view to maintaining output at a high level." The officers were further desired to arrange with the employers for subsequent records of the conduct of a man thus admonished, and if necessary for his report either to his trade union or to a Labour Advisory Board, or to the Ministry for prosecution. In the latter case they were responsible for conducting the prosecution before a munitions tribunal. They were to suggest to employers the slight relaxation of very rigid rules as to punctuality if the morning start was as early as 6.30 a.m., and were "generally to assist employers in all matters regarding time-keeping," without any approach to officiousness or interference.

Special insistence was laid on the keeping by the chief investigation officers, of careful records, both of individual and general time-keeping in the cases referred to them, and of following up cases of men warned or prosecuted.¹

(b) Prosecution and Co-operation with Employers.

No prosecution on behalf of the Ministry of Munitions was sanctioned from headquarters without formal warning either by a Labour Advisory Board, a trade union official or an officer of the Ministry of Munitions; nor was it normally allowed under any conditions (according to a departmental notice of May, 1917) when the worker was under 17 or over 60, or when the worker had during the period under consideration worked 60 hours or more per week. The prosecution of women for lost time was dropped by the Ministry at this time² although it was continued by some private firms. Very few prosecutions for lost time were in fact recommended by the investigation officers under the official time-keeping scheme evolved in 1917. Thus in June of that year, while 1,827 records of the time-keeping of individuals were inscribed on the card indices of the chief investigation officers' offices, only 62 cases were recommended for prosecution. This proportion was said by the investigation officers to be a testimony to the effect of moral pressure and careful watching on avoidable loss of time.³

During the debate on the second reading of the Munitions of War Bill in April, 1917, attention was drawn to the frivolous cases brought into court by employers, causing loss of time, ill-feeling and a sense of grievance. In March, said Mr. W. C. Anderson, out of 965 cases at the Sheffield tribunal, 254 were dismissed apparently as being frivolous or unproved while 256 others were adjourned on probation. "It is very doubtful whether a man feels most irritated if his case is dismissed or if he is found guilty. If the case is dismissed it means that he has been brought there for nothing." Sir Tudor Walters equally emphasised

¹ See L.R. 107/107 passim.
² L.R. 232. A year later (May and June, 1918) the duty of investigating time-keeping cases among women and boys was formally handed over to the welfare officers, acting under the immediate instructions of the chief investigation officers.
³ L.R. 107/107.
the discontent caused by numerous trifling prosecutions, which were not, he urged, normally brought by the large, well-organised firms.\(^1\) The Employers' Consultative Committee urged during the consideration of the revised Munitions Bill during the summer of 1917, that prosecutions for breaches of works rules should be undertaken in future, not by firms, but by the Ministry (or the Admiralty) alone. At the time, there were about 2,000 time-keeping prosecutions per month before tribunals, and of these about 60 per cent. ended in convictions.\(^2\) Only some 3 per cent. were at the time initiated by the Ministry, but these cases, being carefully prepared and sifted, were seldom dismissed by the tribunals. It had been repeatedly urged since the early autumn of 1915, that it would conduce to better discipline and remove friction, and also save waste of time in unnecessary hearings, if the Department would initiate all proceedings. With the withdrawal of the leaving certificate regulations under the Munitions Act of 1917, employers were comprehensibly anxious not to risk the loss of men through the enforcement of works rules, if the responsibility for this could be undertaken by a public authority. Accordingly, Section 10 of the new Act\(^3\) took this power wholly from employers, and responsibility for receiving employers' complaints, investigating them and arranging, if necessary, for prosecutions with the sanction of headquarters, was left to the chief investigation officers.

In the meanwhile a separate procedure was begun in May, 1917, for the treatment of avoidable loss of time among men of military age by co-operation with the Labour Enlistment Complaints Committees described below. The withdrawal of exemption from military service was a more effective method of coercion for the inveterate bad time keepers (a small minority, it must be repeated, among munition workers) than was moral suasion or the infliction of small fines by the tribunals.

A large increase in the penal work of the investigation officers naturally resulted from the Act of August, 1917, and the number of prosecutions instituted by them rose from 45 in September, 1917, to 373 in October, when the effects of the Act became visible. In the ten months that passed between the adoption of this process and the end of June, 1918, the investigation officers had received 9,314 formal complaints from 2,606 firms. After exercising their right of summary dismissal of complaints, the officers referred 4,825 of them to the Labour Enlistment Complaints Committees and instituted 3,698 prosecutions.\(^4\)

An attempt was made in 1918 to systematise further the treatment of bad time keeping in controlled establishments, and employers were circularised in March urging their increased co-operation and explaining

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2 L.R. 107/13; L.R. 5581.

3 "Proceedings against a person for contravening or failing to comply with regulations made by the Minister of Munitions under subsection (4) of Section 4 of the Munitions of War Act, 1915, shall not be instituted except by the Minister of Munitions or the Admiralty or by a person acting on his or their behalf."

in detail the present procedure of the Department (described below in connection with the Labour Enlistment Complaints Committees). The procedure consisted ultimately in individualising bad time-keeping with the help of the employers, by means of personal interviews and enquiries and by the maintenance of card records over considerable periods for the attendance of such men. This in itself involved a severe strain upon the chief investigation officers' staff, since it was said that one investigation officer could not scrutinise and assist to improve effectively the time-keeping of more than 12 firms per week. It was, however, represented by the officers themselves that the scope of their activity was perforce limited, since it was obviously impossible to give "admonition" or to conduct detailed enquiries into time-keeping in certain phases of the labour unrest that in 1918 still followed the adoption of the 12½ per cent. bonus on earnings.¹

The following figures summarise the time-keeping officers' extra-mural activities for October, 1918, among 4,875 controlled establishments:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms dealt with</td>
<td>816</td>
</tr>
<tr>
<td>Firms under special observation (with their own assent)</td>
<td>518</td>
</tr>
<tr>
<td>Individual records kept</td>
<td>2,685</td>
</tr>
<tr>
<td>Warning letters for prosecution</td>
<td>497</td>
</tr>
<tr>
<td>Warnings for removal of protection</td>
<td>1,353</td>
</tr>
<tr>
<td>Referred to Labour Enlistment Complaints Committees for prosecution</td>
<td>337</td>
</tr>
<tr>
<td>Referred to Labour Enlistment Complaints Committees for withdrawal of protection</td>
<td>132</td>
</tr>
<tr>
<td>Prosecutions instituted for bad time-keeping</td>
<td>129</td>
</tr>
<tr>
<td>Labour Enlistment Complaints Committees' recommendations to withdraw protection</td>
<td>59</td>
</tr>
<tr>
<td>Protection withdrawn by the Ministry</td>
<td>34</td>
</tr>
</tbody>
</table>

The Ministry's work in connection with time-keeping was clearly ended abruptly by the Armistice, and as an instance of prompt discontinuance of war activities it may be recorded that instructions were sent on 13 November, 1918, by the Department, to its local officers, to the effect that "no further action will be taken by the Ministry in connection with the improvement of time-keeping in controlled establishments."

III. Methods of Preventing Lost Time.

It is worth while to enter into some further consideration of methods of dealing with the munition worker who failed to put in the full working week, partly as an illustration of departmental dealing with the individual, partly because of the connection of the problem of lost time with other problems of labour regulation.

(a) "Admonitions."

The efficacy of the "admonitions" and formal warnings delivered to bad time-keepers by chief investigation officers and others obviously depended largely on the personality of the admonisher and admonished.

¹ L.R. 107/58.
In some cases of unjustifiable time losing, appeals to the workers' patriotism and to the needs of the men in the trenches did their work, in the opinion of those most qualified to judge; in others no lasting effect was produced until the exhortations became warnings with penalties behind them.

(b) Munitions Tribunals.

In the first months after the establishment of these courts, prosecutions before them for loss of time were on the whole held to be effective by the munition firms and the Admiralty officials with experience of them.\(^1\) In the second year of the Department's work there was considerable criticism of their effectiveness in enforcing workshop discipline. While some large firms, such as the Coventry Ordnance and Beardmore's,\(^2\) regularly sent their bad time-keepers before them, others said that the loss of time involved in arranging for attendance at the court of a foreman and witnesses as well as the delinquent, together with the bitterness sometimes left by a conviction, made it not worth their while to use them. They further said that the publicity of the hearings and their press reports acted as a deterrent to the self-respecting workman but not to the really bad case who gave trouble in the workshops, and that the scale of fines, especially if paid by instalment—variable within the £3 limit—was insufficient penalty for workmen earning from £5 to £10 a week.

To meet this last criticism, special inquiries were made in the first half of 1917 from the chairman and clerks of local munitions tribunals as to their practice in dealing with time-keeping cases. Their replies supplied the following facts.\(^3\)

In January, 1917, 2,681 time-keeping cases were dealt with by the tribunals. Fines were inflicted in 1,744 (65 per cent.) cases; 147 (5·4 per cent.) cases were dismissed with a caution; 172 cases were adjourned. The level of fines varied greatly in different districts. The average was £1 3s. 8d. throughout the country, ranging from 6s. 10½d. at Bradford to the full £3 at Huddersfield. (A considerable number of women and boys were involved at one centre—Birmingham—and this kept the average fine low.) 237 (13·5 per cent.) of the fines were under 10s. in amount, and 623 (35·7 per cent.) of the larger fines were payable in weekly instalments of under 10s. The Metropolitan local munitions tribunal inflicted fines of 60s. in 24 cases, 40s. in 25, 30s. in 11, 20s. in 89. The Sheffield tribunal, spoken of by employers as very effective, had in this month most cases (502); next to this, the largest number of time-keeping cases were at Birmingham (383), the Metropolitan Court (297), Glasgow (207), Coventry (197). The time-keeping cases from January to June averaged 2,122 per month among 53 local munition tribunals. Of these cases only 56 per month were on an average brought by the Ministry.

The clerks and chairmen were consulted in March as to their practice in assessing fines and fixing the weekly instalments by which

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1 Weekly Sectional Reports.  2 M.W. 160760.  3 L.R. 107/32.
they might be paid (i.e., deducted by the employer from the delinquent's wages). Their replies were to the effect that it was difficult to be wholly consistent owing to the varying constitution of their boards of assessors, and that no definite rule or principle could be laid down for the fixing of fines. Cases must be dealt with on their merits, with due consideration of the earnings and circumstances of the person charged as well as his character and past record. "The main point in Birmingham had been to secure as large instalments as practicable, subject to two considerations, (a) the fine should be levied so as not to fall on the family instead of on the offender, (b) the fine should not drive the men away from the work altogether. The average of fines was much higher than a year ago, and the chairman thought it impossible to increase this without imperilling the unanimity of the tribunal, the maintenance of which he considered of the highest importance." "We keep prominently before us," reported the Blackpool munitions tribunal, "the desire by our decision to induce the man to put his best into his work as well as to make the penalty deterrent to others." 1

A few months later, when the desirability of abandoning work before breakfast was frequently urged, the officials of tribunals were similarly consulted as to their practice in regard to prosecutions for lost "morning quarters." Very varying customs were reported among the firms which approached the tribunals. 2 At Leeds the court attached great importance to the enforcement by employers of the rule as to "quartering" (the exclusion of late comers till the first break in the morning's work). There would be an entire lack of discipline without such strictness, though in fact many employers gave a quarter to half an hour's grace. At Birmingham the local practice was said to vary from exclusion for half an hour to a whole day. In such an extreme case as the latter the chairman "not seldom" invited the employer to make provision for some elasticity lest he should be compelled to dismiss a charge or grant a certificate. At Liverpool, it was thought that locking out (the common rule in shipyards) was not per se nearly sufficient penalty.

One frequent cause of difficulty in settling time-keeping cases before the tribunals lay in the difficulty of obtaining satisfactory medical certificates. The efforts of the Department to standardise medical certificates were not successful. Early in 1917 a very large number of model certificates were printed by the Department for use in controlled establishments. It was, however, found that busy panel doctors, while they were prepared to give, e.g., a written statement that "A.B. is unable to follow his occupation," commonly refused to make the detailed diagnosis required for the completion of these certificates, unless they were allowed to charge much more than the normal working-class fee for the purpose. 3 To meet this difficulty tribunals were directed to obtain medical referees to whom at a small fixed charge (7s. 6d.) doubtful cases could be sent; or they could require the attendance, at a fee of £1 1s., of the defendant's doctor.

1 M.W. 160760; M.T. 132/3; M.T. 129/3; L.R. 107 sub-files.
2 L.R. 107/22.
3 L.R. 107/74 and 107/79. A copy of the certificate is given on page 178 of the Final Report of the Health of Munition Workers Committee. (Cd. 9065 of 1918.)
Statistics of fines and isolated descriptions of procedure do not give a fair indication of the tribunals’ work in the enforcement of good time-keeping or of other branches of factory discipline. It was often claimed by employers that prosecutions had a deterrent effect on very many who were not brought before the courts, although it was admitted that convictions and fines were powerless against the confirmed “slacker.” But, apart from deterrence, they gave a fair opportunity for the expression of grievances, and for explanation of the difficulties of punctual attendance due to ill-health, crowded trains, admission rules, for which in the press of munition work in busy firms there was no guarantee of a hearing. The local munitions tribunals were essentially domestic courts, ready to hear, in the presence of assessors representing both capital and labour, any detail of workshop organisation, of family difficulties, and the unnecessary discontents of working-class life, that might account for irregularity at work.\(^1\) On the other hand, they gave opportunity for a definite statement by the employer of the dislocation of work by bad time-keeping, and to some extent enforced the point of view that regular work was national service.\(^2\) Their efficacy obviously varied in accordance with the personality of the local chairman and the selection made from the rota of assessors. Large numbers of employers never had recourse to them; but in the absence of other machinery, their influence was valuable; and, incidentally, experience of their working helped to establish the permanent value of a new kind of industrial court.

A charge was raised in certain engineering workshops during the autumn of 1915 that the enforcement of works rules by an external tribunal inaugurated a form of widespread tyranny over the worker. It is worth while to record, therefore, that in 1917, when the tribunals reached their maximum of rather over 2,000 time-keeping cases per month, there were some 2,000,000 workers subject (with their employers) to the Munitions of War Acts.

(c) Withdrawal of Military Exemption: Labour Enlistment Complaints Committees.

“Labour Enlistment Complaints Committees” were established in January, 1917, simultaneously with the first attempts to give effect to the contentious Trade Card Exemption scheme for members of the

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\(^1\) One such case, typical of very many others, may perhaps be quoted. At one of the early sessions of the Newcastle local tribunal (September, 1915) an admittedly bad time-keeper explained his lateness at work by sleeplessness due to ill-health, the presence of twin babies at home, and the fact that he lived opposite to a steel works, “and every time that the lights went out” (this was in a month of local air raid alarms) “the men working there came outside and sang and played mouth organs.” In this case no fine was inflicted. (Weekly Tribunal Reports, September, 1915).

\(^2\) “Many firms,” wrote a woman assessor at a munitions tribunal in a large provincial town, “use the courts freely as a means of making their workers keep good time. I have seen firms bring up 20 or 30 women for unpunctuality and loss of time. Constant unpunctuality in coming to work is always severely dealt with. Occasional loss of time in a worker who has a good reputation is not generally severely treated, but the girl who has a record of unpunctuality is sure to get into trouble sooner or later.” Women in the Munitions Courts: Hints for Women Workers (Labour Press; 1917).
skilled trade unions, "to deal with cases of alleged victimisation of skilled men by employers in substitution and debadging, and with all allegations of improper enlistment"; and consisted of the chief dilution officer in each of the eight employment exchange divisions as chairman, with representatives of the War Office, the Admiralty, and the Ministry of Labour, and three or four representatives of labour nominated by the Labour Adviser to His Majesty's Government. They reported to a special section of the Labour Supply Department, under the direction of Mr. W. Mosses (secretary to the National Advisory Committee, and formerly general secretary of the Federation of Shipbuilding and Engineering Trades), and offered another example of the joint committee on which the official and labour element were equally represented, which appeared in many spheres of administration during the later stages of the war.

When in May, 1917, it was arranged to refer to these committees cases of bad time-keeping among men of military age, for consideration of the removal of their military exemption certificates, the following procedure was evolved. Complaints of bad time-keeping among exempt munition workers, whether these were received direct from firms by the district chief investigation officer, or were referred to him by headquarters, might, after personal investigation by the chief investigation officer or his deputy, be reported, with the employer's written approval, to the area Labour Enlistment Complaints Committee. The latter were directed to fix a day for hearing the case; to summon the man to attend (with his trade union representative if he desired), explaining that his travelling expenses would be paid, and that if he did not appear, it would be assumed that he had no further explanation to give of his irregular attendance; to consider the evidence, and to report thereon to headquarters. If the local committee recommended the withdrawal of exemption, the Labour

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1 Protests against the alleged over-representation of the A.S.E. on these committees were raised by members of the general unions, on whose behalf it was claimed that they included 450,000 munition workers as against 190,000 in the A.S.E.

2 The Trade Card scheme was in the first place suggested and forced upon the Government by the A.S.E., and intended by them to crush all other unions to which they objected—and there are only one or two unions to which the A.S.E. do not object in the engineering world.

3 But why worry if the A.S.E. should presume to rule the Trade Union world, even as its exemplars—the Prussians—aspire to rule the states of the world? There comes a day when over-reaching ends, because it incurs universal condemnation. And evolution supplies the brake sometimes so suddenly that the road-hugghishly driven vehicle turns turtle." (Article on "Prussianism in the Trade Union Movement"; Workers' Union Record, August, 1917).

2 The schedule of protected occupations of May, 1917 (MM.130) stated (note 6); "Any men found to have a bad record for absence from work will obtain no protection by reason of being employed in an occupation covered by the schedule."

The Trade Card Agreement of 22 November, 1916, between the Government and twenty-five "skilled" unions was abrogated on 1 May, 1917, and the Labour Enlistment Complaints Committees from that date heard claims to "protection" under the new Schedule (Printed) Weekly Report No. 87, XII. (14/4/17.)

3 L.R. 107/107.
Enlistments Complaints Section of the Ministry, if they concurred, at once took action for the removal of the exemption certificate, formal sanction to this being reserved to the Parliamentary Secretary. The local committee were empowered, if they desired, to ask for a medical certificate from a specially appointed medical adviser, and were specially instructed to take into consideration sickness, or other reasonable cause, in deciding whether the case was one where protection should be withdrawn. If the man concerned had not been convicted before a munitions tribunal, but was reported on good grounds to be a bad time-keeper, the investigation officer, after personal inquiry, was directed to send a formal warning to the offender, explaining the position, and quoting from the latest schedule of protected occupations to the effect that "The national need at the present time does not permit of the retention on Admiralty, War Office or munitions work of any man of military age who does not devote his whole time and energies to the work."1

The fullest opportunity of protest and of defence against any possible form of "victimisation" was given to the workman. Only after three or four weeks had elapsed from the date of the warning, and its result had been carefully noted, was a time loser to be reported to the Labour Enlistment Complaints Committee. The latter was directed to report specially to headquarters (though without appearing to offer censure without full inquiry)2 if a firm's methods of management appeared to conduce to bad time-keeping; and its members were directed to report to the chief investigation officer any cases of invidious selection of bad time-keepers by an employer.

Explanations of the scheme were sent to employers in June, 1917, and again in April, 1918, in the latter case urging strongly upon firms the desirability of at once and regularly reporting to the chief investigation officers the names of the small percentage of workers who habitually kept bad time, delaying and setting a bad example to their neighbours, in order that they might either be prosecuted before a munitions tribunal or sent into the army. Employers not infrequently said that with the shortage of skilled men they would rather have one who was a bad time-keeper than none at all, and that since the removal of the leaving certificate regulations, prosecution might lead to the loss of the workman. It was, however, pointed out to them that it was unfair to other men to protect bad time-keepers of military age from military service, and that the notoriously bad time-keeper above military age was still liable to prosecution on the strength of his record if he transferred his services to another firm. To meet a criticism that the national factories were not similarly sacrificing their skilled men in the interests of regular work, the controllers of national factories were similarly called on to report their bad time-keepers to the chief investigation officers and Labour Enlistment Complaints Committees. A poster explaining the effect of the revised schedule of occupations was sent out in May, 1918, to firms desiring to exhibit it.

1 L.R. 107 and sub-files.  
2 M.S. 34808.
The chief investigation officers reported good effects from the increased stringency of the methods of dealing with bad time-keepers in the summer of 1918. In Glasgow, especially, the chief investigation officer declared that the last warnings had been very effective; the employers had backed up their efforts in supplying records, and had not found their men leave them. The system was now simplified as follows:—A bad time-keeper received an official letter of warning; after three weeks, if he had not improved and if he lost at least one hour per day, his record was sent to the Labour Enlistment Complaints Committee. The man was summoned to the next meeting of the committee within ten days; the committee’s decision was given in a week or ten days. Four or six weeks later the papers reached the recruiting office.

The following table shows the number of bad time-keeping cases which were referred to Enlistment Complaints Committees, and the manner in which these were dealt with from 7 May, 1917, to 3 November, 1918:

<table>
<thead>
<tr>
<th>Case Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad time-keeping cases referred</td>
<td>955</td>
</tr>
<tr>
<td>Protection withdrawn</td>
<td>548</td>
</tr>
<tr>
<td>Protection not withdrawn</td>
<td>173</td>
</tr>
<tr>
<td>Under consideration by the Committees</td>
<td>69</td>
</tr>
<tr>
<td>Under consideration by the Ministry</td>
<td>145</td>
</tr>
</tbody>
</table>

The total number of men posted to the Army under this procedure up to 3 November, 1918, was 372.

The very small number of men actually affected by the procedure described is a testimony both to the shortage of male labour in the last year of the war and to the extent to which good or bad time-keeping is dependent on health. It was clearly not worth while to claim, for military service, munition workers of a very low medical class. The provision for the removal of exemption from bad time-keepers was a concession to the workers’ sense of justice rather than an additional means of securing men for the Army.

(d) Co-operation with Labour;—Trade Unions, Labour Advisory Boards, Works Committees.

It has been shown how, in the discussions with trade union representatives in May and June, 1915, and in the debates in Parliament which led up to the passing of the first Munitions of War Act, emphasis was laid on the necessity of enlisting the help of labour in securing good time-keeping and factory discipline. The constitution of the local munitions tribunals, with their equal representation of capital and labour on either side of the chairman, was intended to give effect to this. In the criticisms of the working of the tribunals that preceded the passing of the first Amendment Act in January, 1916, it was pointed

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1 L.R. 107/56.
3 See Vol. IV., Part II., Chap. I.
out that this partnership was not really effective,\(^1\) and it was urged that intermediate councils should be established to settle, with even more promptitude than was shown by the tribunals, petty disputes and points of workshop discipline.\(^2\) No formal proposal was, however, made, and the employers informally consulted were against any such intermediate councils. The second year of the war, with its pre-occupations and its heavy demands for overtime work, was not a time in which to convince employers of the advantages of devolution in control, or to educate the trade union rank and file in the principles and details of workshop administration.

*Labour Advisory Boards.*—Some attempts were, however, made by means of the Labour Advisory Boards to utilise the labour leaders' readiness to give a lead to those of the rank and file who appeared indifferent to the output of war material.

These boards were designed, according to their formal constitution, to act as the district agents of the National Advisory Committee, "reporting to that committee on matters arising there, taking up questions with local representatives of trade unions, and co-operating with the labour officers of the Ministry, so as to secure the most effective use of labour on the production of munitions of war." They consisted of seven members elected by representatives of the trade unions locally concerned in munition work. One of their specified functions was to deal with lost time.

"The Labour Advisory Boards shall investigate cases of bad time-keeping reported by employers, either directly by the firm or through the local labour officer, and take such action as may appear possible and desirable with a view to improving time-keeping."\(^3\)

The Labour Advisory Boards came slowly into existence, largely owing to trade union dissatisfaction at their constitution, which gave equal representation to all munitions trade unions, irrespective of their membership, and expressly stated that no union should have more than one member. Representatives of the A.S.E. explained this at the conference on 31 December, 1915, with the Minister on the Munitions of War Amendment Bill ("What certain of our members

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\(^1\) "Why," asked Mr. Wilkie of the Shipwrights' Society, in the debate of 4 January, 1916, "was there not an effort at partnership?" "Instead of getting those domestic courts which were promised, we have got these other courts with most ridiculous decisions." The Shipwrights' Society had established committees in all the large shipbuilding firms in the North of England to deal with the managers and foremen. "If these committees had received more encouragement from the Minister of Munitions and his officials, they would have been of much more power for good and less cases would have gone to the tribunals." *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 862, 863, and *A.S.E. Journal*, December, 1915, and January, 1916.

\(^2\) M.W. 72469/4.

\(^3\) The Central Munitions Labour Supply Committee in the early autumn of 1915 represented that avoidable time losing should be reported to the local labour officer so that offenders might come under the influence of the Labour Advisory Board, not instead of, but before, referring them to munitions tribunals, and the head of the Time-keeping Section of the Ministry agreed, after discussion with the secretary of the National Advisory Committee, at the beginning of 1916 to make use of the Labour Advisory Boards when advisable. (M.W. 88872.)
have refused to do is to appoint one man to represent 20,000. Probably the bricklayers or the plumbers, or some other small association representing about 50 men, has joint representation with us’); and again, on 14 March, 1916 (‘The trades which are being called upon to release their rules and make sacrifices are not adequately represented’). Members of the A.S.E. urged the establishment in their place of joint committees (shop committees, works councils, and district committees) for the engineering industry. These proposals, the germ, perhaps, of a later industrial constitution, were not, however, officially formulated, and though considered at intervals throughout the year, no action was taken upon them.1

The Labour Advisory Boards, therefore, were limited in action and devoid of any compulsory powers; and it is safe to say that they never fully realised the nebulous duties assigned to them. At their early meetings, of which, according to instructions, brief records were sent to the National Advisory Committee, they were chiefly concerned with very minor points of dilution and wages questions, the position of men released from the colours, and the subsistence allowances of War Munition Volunteers. At the beginning of 1916 a few of the Boards took up the question of time-keeping among munition workers, on the suggestion of the National Advisory Committee, and those which evolved, a vigorous policy with regard to it were the only boards to survive their first year in any state of health.

The most effective board in this respect, though not the first to take action, was that at Coventry, which developed a system commended by the Department as an example to the similar boards throughout the country. It developed the following procedure, a procedure, it may be observed, based almost wholly on the efficacy of ‘moral persuasion.’ At the end of April, 1916, one of the large engineering firms in the city wrote to ask its help in dealing with lost time. The chairman and secretary interviewed the management, and next week reported on their agreement. They undertook to send a warning circular to all workmen reported to them whose average loss of time exceeded four hours per week, and a letter to all losing more than 30 hours per month, summoning the latter to appear before the board. Until the men had had the opportunity of doing this the firm agreed not to prosecute before the tribunal. The trade union officials, representing ten or twelve trade unions, and the local branch of the Engineering Employers’ Federation agreed, in the course of the summer, to cooperate with this scheme, and for a few weeks in the autumn of 1916 the board had informal meetings three or four times a week to deal with the men reported to them, interviewing separately some 15 men per night. The great characteristic of these meetings was the individual treatment of each case. The delinquent stated his case, gave good grounds for his unpunctuality, or listened to reminders by his fellow-workmen of the needs of ‘the men in the trenches.’ Reports were sent to the employer on the result of the interview, exonerating the man who had been charged, or recommending his prosecution or

1 M.W. 72469/4.
TIME-KEEPING

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further probation, as the case might be. Local employers testified to the real efficacy of this board; and a few other boards, e.g., those at Luton and Bristol, followed its example with vigour.

It must, however, be admitted that the boards were not effective in dealing with time-keeping cases, despite the support given to them by the Department. There was easily explicable jealousy of their position among trade union officials, while in some cases, employers comprehensibly disliked asking the help of trade unionists in matters of works discipline. Further, the boards depended for their efficacy in a disagreeable task on the personality of their members, and, granted that this was satisfactory, they were not effective outside the sphere of personal influence. There was, therefore, obviously little scope for them in districts in which, unlike Coventry, controlled establishments were either very numerous or widely scattered.

Trade Unions.—The schemes of the two Armaments Committees in 1915 for improved time-keeping, and that of the Admiralty in 1916, expressly involved the co-operation of the trade unions. The Boilermakers' Society, in particular, undertook to give this, thus reviving an obsolete system under which their officials had, before the war, in theory at least, interviewed, or if necessary fined, bad time-keepers reported to them by the shipbuilding firms. In the engineering trade it was difficult to produce any such definite extension of functions, although in January, 1916, at the monthly York conference between the Engineering Employers' Federation and the engineering trade unions, the latter agreed that they would take special steps to deal with cases of bad time-keeping. Wherever possible the investigation officers were directed to make use of the good offices of the local trade union officials, in order to bring pressure upon their members. In Scotland, the Chief Investigation Officer said, early in 1917, that this would be impossible, and reference was seldom made to trade union secretaries, for very obvious reasons, based equally on the relationship of

1 A vivid description of an evening's session of the Coventry Board by Mr. Harold Begbie in the Daily Chronicle was reprinted by the Department and circulated to other boards and to employers.


3 M.W. 72469/4.

4 M.W. 164535.
the trade union official to his branch members during the war, and on
the Ministry's position with regard to local labour difficulties. Between
March and September, 1917, when between 2,000 and 3,000 time-
keeping cases per month were under observation by the Department's
officers, a total of only 6, 31, and 9 (say five per month) were reported
to the trade unions.¹

Works Committees.—There was probably more prospect of success
in the treatment of so purely "domestic" a question as bad time-
keeping by works committees, where these were prepared to deal with
the subject. The Department, as has been said, took no official action
in the delegation of discipline to committees including workmen; but
isolated experiments were reported to it in the later stage of the war.

Thus, in July, 1917, the works committee of a Bilston firm²
considered grievances raised as to the administration of the time-
keeping bonus, and had access to the books to settle them. The
Phœnix Dynamo Company had a scheme under which a man could
choose whether to be fined by the works time-keeping tribunal or the
munitions tribunal.³ The works committee of a Huddersfield firm⁴
administered a bonus, subject to stoppage for bad time-keeping or
misconduct. The Sunbeam Motor Car Company, Wolverhampton,
had a committee which helped the management in time-keeping,
and was credited with a reduction of hours lost by 4,000 a week among
3,000 employees.⁵

A year later an example of co-operation was reported from the
shop committee of the Britannia Iron Works, Bedford. "The man's
record card is handed to the committee, which decides (very justly,
according to the Chief Investigation Officer) whether he is to be reported
to the Labour Enlistment Complaints Committee."⁶

The coal miners' pit committees, in 1916, undertook to deal
with absenteeism among their fellow-workmen.⁷ An interesting
example of a similar agreement was made with the sanction of the
Department in July, 1917, between the Cleveland blast-furnacemen
and coke-oven men and the Cleveland Ironmasters' Association.⁸
By this agreement a committee of three workmen, chosen by the trade
union (with three representatives of the employers "if desired"),
was set up at each works, and was empowered to inquire into any
charges of bad time-keeping brought by the management, to give
warning and advice to any workman who might appear to need it,
and to inflict fines up to 20s., subject to the provision of the Truck
Acts. A central committee was set up for the district, with power
to inflict fines up to 40s. or to submit cases to the Ministry of Mun-
tions, so long as munition/tribunals should exist.

¹ L.R. 107/16.  ² C.E. 3997.  ³ C.E. 768.  ⁴ C.E. 2753.
⁷ See reports of the conferences of the Miners' Federation of Great Britain in
November and December, 1916.
⁸ M.W. 130574/19.  See also p. 112.
Clearly, cases of bad time-keeping were not among the first which newly established works committees would normally undertake, although the prevention of lost time was included among the possible duties suggested for them by the Ministry of Labour in its *Recommendations on the Functions of Industrial Councils and Works Committees*, issued in January, 1919.

(e) Organisation.

The foregoing methods of dealing with time-keeping were mainly methods of deterrence, whereas good time-keeping under normal circumstances is admittedly largely dependent on good workshop organisation. Attempts to prevent lost time during the war threw light on its connection with three special aspects of management.

Methods of wage payment.—The effect of a time-keeping bonus was often discussed during the war, and employers were specially asked to make notes on its effects in their periodical returns to the Department. The opinions thus received varied greatly. On the whole it appeared to be difficult to make such a bonus large enough to be an effective incentive, except in the case of low-paid workers, such as certain labourers, women on timework, and boys, especially apprentices. Even with these, opinions differed as to the efficacy of such a bonus.

It was suggested early in 1917 that time-keeping conditions might possibly be attached to the newly arranged periodical wage advances in the engineering trades. The Committee on Production (who were familiar in their hearings, especially in those concerning the shipbuilding trades, with charges by employers that their workers lost so much time as to neutralise any claim to wage advances) were, however, against such a proposal when consulted informally thereon.

Apart from this possible course, methods of payment for overtime early came under consideration. An attempt was made in some trades and districts, and was fostered by the Admiralty and the Ministry of Munitions, to keep overtime work as a privilege for good time-keepers, or only to allow the calculation of overtime, with payment

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2 The opinion of one of their members on this point sums up one important aspect of the relation of wage payment to time-keeping.

"Any general scheme of the sort would be greatly resented by men generally and by the unions as casting a slur on the whole body for the misdoings of a minority, a large part of whom are slackers past redemption and with whom the unions are willing and anxious to deal by disciplinary means. It also involves highly controversial issues. Prior to the war there was much controversy about a guaranteed week, workmen generally wishing for the regularity which a guaranteed week gives, employers generally leaning to the freedom given to them by the system of payment for hourly or daily work. That system undoubtedly taught men in certain industries to believe that it rested with them to choose whether they should work or not, and the effect of that teaching cannot be undone in a moment. It is very difficult for employers during the war to reverse their attitude and make increases of wages dependent on men surrendering their comparative freedom as to hours of work under penalty of being deprived of the increases in hourly payment to which they consider themselves entitled owing to an increase in the cost of living." (M.W. 151449/8.)
at increased rates, after the normal number of hours' work had been performed.\textsuperscript{1} The story of these negotiations belongs, however, to the history of wages.

No generalisations as to the effect of methods of wage payment on time-keeping were possible from the extent to which the Department was able to examine the problem.\textsuperscript{2} On the whole, time-keeping tended to be less good among piece-workers than among time-workers, and it was sometimes urged by opponents of the Ministry's efforts to promote the adoption of payment by results, that this would operate against attempts to secure regular attendance at work.

*Hours of Work.*—The statistics obtained from controlled establishments failed under war conditions to show any general correlation between overtime worked and time lost. It became, however, increasingly clear that the absence, under the "one-break" system, of early work before breakfast led directly to better time-keeping. Thus in November, 1917, the following returns were sent in by controlled firms engaged in general engineering\textsuperscript{3}:

<table>
<thead>
<tr>
<th>No. of Firms</th>
<th>Workpeople</th>
<th>Avoidable loss per head</th>
<th>Percentage of employees losing over six hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-break system</td>
<td>147</td>
<td>47,000</td>
<td>1.1</td>
</tr>
<tr>
<td>Two-break system</td>
<td>5,062</td>
<td>150,000</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Later reports agreed that loss of time was reduced by more than one-half as a result of a later morning start. The movement for a shorter working day with one break, which was growing in the year 1917-18, and which marked a reversion to the pre-war experience of many enlightened firms, was opposed largely because of the dislocation, involved by the change, in established agreements as to standard hours and wages. It was primarily for this reason that the Department was unable, under war conditions, to take the initiative in this movement for the reorganisation of the working day.\textsuperscript{4}

*Welfare.*—Much stress was laid by the Welfare and Health Section on the importance of good working conditions and considerate supervision in securing regular attendance at work, and a model system of recording the time-keeping of individuals was prescribed for national factories and recommended to controlled establishments. The position with regard to time-keeping among women was summed up as follows by the director of the Women's Welfare Section of the Department after an intensive study of a number of cases of alleged bad time-keeping referred in August, 1918, for investigation.\textsuperscript{5} (The women as a whole were said to come out well from this inquiry, except in five firms with bad working conditions.)

\textsuperscript{1} Cf. first Report of Committee on Production, February, 1915; Third Report of Committee on National Expenditure, 1918; M.W. 151449, etc.

\textsuperscript{2} Cf. Final Report of Health of Munition Workers Committee (Cd. 9065 cf 1918), Section 8.

\textsuperscript{3} Monthly Reports on Time-keeping.

\textsuperscript{4} See p. 132 ff.

\textsuperscript{5} L.R. 107/70.
“Prevention is better than cure, and for women moderate hours, no work before breakfast and good supervision by a first-rate welfare supervisor are the conditions which produce good time-keeping.”

The experience of munition firms appears to show that this constructive view of the requisites for good time-keeping applies, mutatis mutandis, to workers as a whole.  

IV. Some Conclusions.

The Department, in order to secure good time-keeping and the maximum output of munitions, utilised in varying degrees the force of public opinion; deterrence, through the agency of munitions tribunals and the Labour Enlistment Complaints Committees; and the co-operation of workers through the Labour Advisory Boards, trade unions, and, to some small extent, works committees. With the problems of factory organisation it was not possible to deal constructively during the war, except—and this was important—in so far as welfare conditions were involved. The Department’s experience showed (1) that the elimination or reduction of lost time involves scientific study of “optimum” hours of work, of methods of wage payment, of welfare conditions, of the reaction of health on efficiency; (2) that therewith careful record keeping, especially by the larger firms, is desirable; (3) and that in so far as unpunctuality is a psychological or moral failing, much could be done by public opinion, e.g., through a works committee, but that there are limits to its efficacy unless some “sanction” is in the background such as penalties inflicted by an industrial court.

The chief investigation officers sometimes expressed to the Department their doubt of the efficacy of this apparently thankless branch of their activities. Towards the end of the war period, however, they reported that definite results were visible. Thus the Chief Investigation Officer at Glasgow, whose time-keeping scheme, though originated

1 An official decoration for good time-keeping was considered.

On 15 March, 1915, Lord Kitchener had made the following statement in the House of Lords: “I feel strongly that the men working long hours in the shops by day and night, week in and week out, are doing their duty for their King and Country in a like manner with those who have joined the army for active service in the field. I am glad to be able to state that His Majesty has approved that where service in this great work has been thoroughly, loyally and continuously rendered, the award of a medal will be granted on the successful termination of the war.”

A small committee, under the chairmanship of Sir George Younger, was appointed by the Minister in November, 1916, to consider the fulfilment of this pledge. Various tests of “thorough, loyal and continuous” service were considered, and the possibility of using time-keeping records for this purpose was specially investigated. But the unsatisfactory character of almost all such records, and the obvious administrative difficulties involved, caused the abandonment of a time-keeping, or indeed, of any statistical test. In January, 1918, the committee reported that no general reward could be recommended, but that the King’s pledge would be admirably fulfilled by grants under the Order of the British Empire for specially good munitions service.

in his office, was substantially the same as that in other areas, gave statistical evidence of improved time-keeping during the summer of 1918, and, reviewing its operation after the Armistice, considered the work to have been really successful. "In so far," he wrote, "as this area is concerned, employers and works managers generally have extended a warm welcome to the time-keeping officers, and have expressed full and frank appreciation of the work done. In most cases it has been intimated that the system initiated by these officers will be carried on at any rate as regards the recording of habitual offenders, and this is a practical recognition of the value of a system which was at the outset criticised by many firms as an additional burden on an overworked staff. The discipline was generally accepted by employees without friction. It is a significant fact that less than 1 per cent. of prosecution cases have been defended by trade union officials."^1

Deterrence is clearly only one method, and not the most permanent, of preventing loss of time in the working day. It is on account of its fundamental connection with welfare—i.e., the improvement of factory conditions, and the provision of good environment for the industrial worker, with the co-operation of labour for this end—that an account of the Department's time-keeping policy has a place among these chapters.

^1 L.R. 107 and (Printed) Weekly Report, Labour Section.
CHAPTER VIII.

A FEW LOCAL EXAMPLES OF WELFARE REGULATION.

The widely varying range of the control of working conditions under the Munitions of War Acts may be illustrated by a few brief records of the material side of welfare provision in particular centres. No attempt has been made to gauge the "human" and personal side emphasised by enthusiasts for the welfare movement.

The system as a whole had naturally most ample scope in the Government establishments and national factories, although there were very complete expositions of a "welfare" policy with regard to labour in a number of controlled firms.

I. Woolwich Arsenal.

In the group of factories comprised in Woolwich Arsenal every difficulty involved in the problem of labour supply and regulation in war time was focussed, on account, first, of the very large scale on which production was carried on, in a necessarily limited area, and, secondly, of the high standard and very varied character of the output.¹

The following statistics as to the numbers employed and the rapidity of their growth illustrate the first point without further comment:

<table>
<thead>
<tr>
<th>Date</th>
<th>Men.</th>
<th>Women</th>
<th>Boys.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 August, 1914</td>
<td>9,466</td>
<td>125</td>
<td>1,275</td>
<td>10,866</td>
</tr>
<tr>
<td>2 January, 1915</td>
<td>19,378</td>
<td>194</td>
<td>3,059</td>
<td>22,631</td>
</tr>
<tr>
<td>4 December, 1915</td>
<td>37,749</td>
<td>609</td>
<td>7,540</td>
<td>45,898</td>
</tr>
<tr>
<td>13 May, 1916</td>
<td>44,025</td>
<td>8,104</td>
<td>7,704</td>
<td>59,833</td>
</tr>
<tr>
<td>30 December, 1917</td>
<td>41,000</td>
<td>25,700</td>
<td>6,000</td>
<td>72,700</td>
</tr>
</tbody>
</table>

The second outstanding characteristic caused special difficulties with regard to the maintenance of a supply of skilled workmen, in face of the Department's policy of dilution and the claims of military service, which, from the outbreak of the war to the end of 1917, removed 11,250 men from the Arsenal. The welfare department at Woolwich, was entrusted with the execution of the work connected with the badging and debadging of skilled Arsenal workmen, the enforcement of the Schedule of Protected Occupations and of the Military Service Acts, the employment of war munition volunteers, and the conduct of cases before munitions tribunals.

While questions concerning the supply of labour thus necessarily involved a large amount of administrative work, much detailed care was given to welfare and working conditions in the Arsenal.

¹ C.E. 1947/15; Hist. Rec./H./346/3 (Memorandum on the work of the Woolwich Welfare Department, by Mr. A. H. Self).
Housing.—Before the war, Woolwich, like most industrial centres, had been overcrowded and a building scheme was under consideration. With the importation of 60,000 fresh workers for the Arsenal, the pressure for housing became intense. To meet this, a garden suburb was built at Well Hall, providing accommodation for 1,298 households, and seven estates of five-roomed bungalows were developed, providing at the end of 1918 for 2,654 families, a number later increased. These were managed by the Arsenal welfare supervision department. Residential hostels were erected to accommodate 750 boys, 2,600 women and 2,000 men, four of these being under the direct supervision of the department.

Transit.—The local congestion in transit was one of the most acute causes of fatigue to the Arsenal workers in 1915 and 1916. This was impossible to cure completely, but it was greatly remedied by the provision of better omnibus, tram and railway services, by the establishment of a river ferry controlled by the welfare department, and by a careful arrangement of the shifts of work of the different factories within the Arsenal, in order to distribute the 60,000 to 90,000 passengers as far as possible at intervals in the 24 hours.

Canteens.—These were provided partly by private enterprise, but increasingly by the welfare department. Early in 1918 the canteens supplied through the welfare department were able to serve 80,000 to 90,000 meals daily. Their takings were £1,000 per day, they employed 1,000 workers, and their supply depot issued daily 20 to 25 tons of foodstuffs. The canteens latterly opened by the department were carefully planned on modern lines, and quick efficient service was insisted upon.

Hours of Work.—Examples of the very long hours worked at Woolwich up to the autumn of 1916 have been already quoted.\(^\text{1}\) They were caused by the demand for output from the Arsenal workshops, with their special equipment of experienced workmen and machinery, and by the congestion in traffic and housing which made it impossible to substitute three eight-hour for two twelve-hour shifts in the 24 hours. They were, however, the subject of vigorous protests by the Health of Munition Workers Committee and the Hours of Labour Committee in the course of 1916, and from the late autumn the overtime and the weekly number of shifts per worker were shortened, though they remained heavy as compared with those in very many controlled establishments. Sunday work for women was abolished in the course of 1917, and at the end of 1917 the Sunday day shift was cancelled.

Welfare Work for Boys.—A special section of the department dealt with the welfare of the 6,000 to 7,000 boy workers on whom the effects of very long hours, high earnings, and continued repetition work, in the great majority of cases without industrial prospects, bore heavily. Six special welfare supervisors for boys were appointed, and efforts were made both to reduce the number of boys employed on

\(^\text{1}\) See pp. 88, 101.
unskilled work by the substitution of women, and to diminish the bad effects of long journeys superimposed on the day's work by refusing to engage those boys who lived more than an hour's journey from their work, and by offering some amenities such as a summer camp and evening clubs. Boys, however, under the abnormal conditions under which they were living showed little desire for ordinary clubs. There was heavy "wastage" and frequent changes in the boys employed. Between the outbreak of war and the Armistice, 24,000 boys had been placed at the Arsenal by the Woolwich Employment Exchange, which in one year imported over 1,100 boys from a hundred distant exchanges.¹

The Welfare of Women and Girls.—The welfare of women and girl workers was provided for on a very large scale, and, on the whole, under better conditions than the similar work for boys, because women workers and many of the processes on which they were employed were practically new to the Arsenal in 1916 and fresh accommodation obviously had to be provided for them. The following is a general sketch of what was attempted for them (again under very difficult circumstances which rendered the complete attainment of ideals of welfare provision impossible), given by Miss Lilian Barker, who was appointed Lady Superintendent at Woolwich Arsenal in December, 1915.²

At the date of Miss Barker's appointment the number of women and girls working at Woolwich Arsenal was about 500. From that time the numbers increased enormously, and when the Armistice was signed, 27,000 women were employed.

One of the most important considerations throughout the work was the selection of the women. Practically every woman was interviewed by the Lady Superintendent personally, and workers were encouraged to come to her or to their welfare supervisor when in difficulties. It was important also that the right woman should be selected for the right work. The medical examination determined whether a woman was fit physically for her work, but it was necessary also to see that a worker for light work, such as fuse making and gauging had deft nimble fingers, that machine workers were not too old, and that the workers for T.N.T. were steady, healthy women. Charge hands and group leaders were mostly women promoted from amongst their fellow workers for their steady and capable work, but for the more responsible posts, such as Principal Overlookers or Assistant Forewomen, it was invariably found advisable to select well educated women, with some experience in organising, who were likely to be popular with the girls and at the same time demand good discipline.

Welfare supervisors were also appointed (at the rate of 1 for every 1,000 women), and their duties were to ascertain that the comforts which had been arranged for the women were utilised. Long fire-proof overalls and caps for the workers in danger buildings, rational clothing (tunic and trousers) for those girls who were working on trucks where skirts were likely to hamper their movements, waterproof garments

for those who were exposed to the weather, were the regulation clothing, which it was part of the supervisor's duty to see was properly worn and regularly changed.

For the general health of the worker it was necessary to ascertain that every factory was properly ventilated, that seats were provided for the girls, that there was a break during the morning when they could get light refreshments (a 10-minutes' break in the five hours' morning spell was introduced after some months' experience of women's employment at the Arsenal), that there were ample canteens where they could get nourishing food at a reasonable cost, and that there was a quiet rest room attached where they could rest after their meals if they so wished. Women working on powders such as T.N.T. were provided with special clothes for canteen wear, so as to preclude any danger of their eating their food in gowns that had become impregnated with powder. Abundant ablution rooms, cloak rooms and shifting rooms were provided, and were daily inspected by the supervisors; bathrooms were also erected where the workers on T.N.T. could bathe, whenever they wished, in the factory time.

To provide recreation for the workers, evening classes were started in conjunction with the London County Council, in subjects such as singing, first aid, home nursing, gymnastics, elocution. Concerts in connection with these classes were held fortnightly at the Woolwich Town Hall, and frequent dances and entertainments were given by the girls. Football, hockey, country rambles, and all sports were organised and largely appreciated by the workers, while evening clubs were opened for those of the workers who did not live too far off to profit by them.

Holidays were arranged for both the workers and their children. This was a great help, as it was often difficult for a mother to arrange to go with her children and leave her work. There was also a small convalescent home, and here girls were sent when they showed signs of fatigue or breakdown. The home was used largely as a preventive, rather than actually as a home for the sick. In the last year of the war, holiday houses were organised, and to each of these a party of girls was taken by the supervisor in charge of the factory from which the girls were drawn.

Homes for the babies of the workers were another necessity, and two créches, for the children of either married or unmarried workers, were started. These were staffed with qualified nurses, under the supervision of the Advisory Committee on Women's Employment attached to the Employment Exchange, together with a Home for Ailing Babies and an Infant Welfare Centre, inaugurated by the American Red Cross Society.

With the signing of the Armistice, the duties of the welfare department at Woolwich became more arduous. Meetings were held in all the factories, at which the women were asked, if they could live without working, to take their discharge immediately. Also those who had a trade, and could return to it, were advised to do so at once. The vacancies that were occurring for clerks in the Army Pay Corps,
and for V.A.D. members, were made known, and every girl was asked to come to the Lady Superintendent for advice if she needed it. Numbers of women and girls were put back to domestic service. Lists of suitable advertisements from all the papers were noted each day, and every woman who wanted work and could not get it for herself, was helped as far as was humanly possible. Widows, particularly the pre-war widows with no pension, were the first consideration, and the majority of these were placed on salvage and sewing work for the Dockyard.

II. "Welfare" in a National Factory.

It is impossible to produce either a composite portrait or a wholly typical sample of the control of working conditions in one of the 200 national factories. The Department had probably most complete scope for an effective welfare policy at the National Projectile Factory at Birtley, and the National Explosives Factory at Gretna, both of which were free from the special difficulties which beset such a policy at Woolwich. The detailed provision made in the one case for a Belgian community of 6,000 established in the bare fields of County Durham, in the other for a factory population of 24,700 and a settlement population of 13,485 planted by the Department in the solitude of the Border country, is described in detail in connection with the history of the Department's housing policy.¹

The following notes, supplied by a member of the staff, give a bare outline of the formal provisions for welfare—on a less comprehensive scale than was possible at Birtley or Gretna—at the Cardonald National Projectile Factory.²

"From June, 1916, to December, 1918, the Welfare Supervisor passed through her hands into the factory 6,121 individual girls, who had been sent for selection from the Govan Labour Exchange. On interviewing a girl her record was written on a card which was placed in an index in the Welfare Office, and this card had the whole subsequent history of the girl's career from start to finish. Usually we had from 2,200 to 2,500 women workers. The following table gives the exact numbers with the length of time they spent in the Factory, and incidentally illustrates the shifting employment among women factory workers:

Number of Women Workers Employed June, 1916, to December, 1918.

<table>
<thead>
<tr>
<th>Time in Factory</th>
<th>Left</th>
<th>Contract.</th>
<th>Total</th>
<th>Per-cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two years and over</td>
<td>99</td>
<td>780</td>
<td>879</td>
<td>13·6</td>
</tr>
<tr>
<td>Eighteen months and over</td>
<td>368</td>
<td>331</td>
<td>699</td>
<td>10·8</td>
</tr>
<tr>
<td>One year and over</td>
<td>492</td>
<td>310</td>
<td>802</td>
<td>12·4</td>
</tr>
<tr>
<td>Six months and over</td>
<td>652</td>
<td>417</td>
<td>1,069</td>
<td>16·6</td>
</tr>
<tr>
<td>Under six months and over</td>
<td>1,297</td>
<td>1,002</td>
<td>2,299</td>
<td>33·6</td>
</tr>
<tr>
<td>Two weeks</td>
<td>325</td>
<td>68</td>
<td>393</td>
<td>6·1</td>
</tr>
<tr>
<td>Unknown</td>
<td>313</td>
<td></td>
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<td>3,546</td>
<td>2,908</td>
<td>6,454</td>
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¹ Vol. V, Part V.  
The total number of workers started was 6,454. Of this number 3,546, or 55 per cent., left or were dismissed; 2,908, or 45 per cent., were dispensed with owing to alterations and restrictions or were demobilised.

"Hours of Work."—Our shifts were never reduced from the 11½ hours day and 12½ hours night. For the first two months we worked seven days and seven nights per week. The Saturday half-holiday was conceded in April, 1917, and Sunday work knocked off.

"Welfare Staff."—This consisted of: Assistant Welfare Supervisor, Night Superintendent, Linen Room Superintendent, four Nurses, 36 Forewomen, and an Outdoor Welfare Visitor, whose duty was to call upon any workers who were off duty through illness, to enquire into cases of distress, and to collect information regarding lodgings for the benefit of new employees coming from the country.

"Ambulance Rooms."—These, one for men and one for women, were also in charge of the Welfare Department and were staffed by four trained nurses, one for each room on each shift. The cases handled included dressings, sometimes exceeding 100 per day. Records of all ambulance cases were made and kept by a specially appointed clerk on a quadruplicate form. One copy was sent to the Works Manager to be used as Certificate for illness or absence, and in order that he might take action in case of accidents to provide against recurrence, and collect evidence in case of an enquiry. Another copy was sent to the Secretary's Department, as notification in view of the case involving compensation. The third copy was sent to the Welfare Supervisor, for enquiry from the Welfare point of view, and to follow up in case of the patient being laid up either at home, in lodgings, or in hospital. The fourth copy on a stiff card remained in the Ambulance Room, as their record, and space was provided on the back for the subsequent history of the case. The Factory Doctor visited the Ambulance Room once a week, when the Welfare Supervisor brought to him for examination girls about whose health and strength there was doubt; compensation cases and cases of possible malingering were also then dealt with.

"Cloak Rooms."—The Girls' Time Offices and entrance doors opened straight into the Cloak Rooms, from which one set of doors led into the Factory and the other into the Canteen. A double row of basins with hot and cold water, clean roller towels at any meal hour and change of shift, and an ample supply of plastic antiseptic soap, were placed down the whole length of the room, and the hat and coat racks were divided by a wooden partition to form separate rooms for each shift; these were sub-divided into sections, numbered and labelled with the Forewoman's name. There were also regular dressing rooms for those who had to make a complete change, such as crane and transport girls. A forewoman (with a staff of four charge hands and four cleaners) was responsible for order and cleanliness on each shift;
petty stealing was in this way reduced to about nothing, and the free fight which heralded the change of shift and each meal hour during the first two months ceased to exist.

"Discipline and Conduct.—The technical training and the actual production of the girls was in the hands of the various foremen, but all matters of conduct and breaches of discipline were dealt with by the Forewomen, except in the case of serious breaches, which were dealt with by the Supervisor. No worker was dismissed or left the Factory without the knowledge and consent of the Welfare Supervisor, who went into each case individually. Her consent was also necessary for the promotion of an ordinary worker to be charge hand.

"Factory Clothing.—The supplying and cleaning of the different uniforms and overalls worn by the girls was looked after. Each suit or overall was washed at least once a week, and, in some operations where soiling was more frequent, as many as two or three changes per week were supplied. Special garments were also available for particular jobs, such as woollen jerseys and oilskin suits for outdoor occupations, clogs, gloves, etc., and thick corduroy suits for Crane Girls and Transport Workers in winter.

"The Canteen.—This did not come under the Welfare Department, except the Girls’ Dining Hall, which was also used as a Recreation Room, and which had special Forewoman, Charge Hand and staff of cleaners. It was found advisable to provide within half-an-hour after starting, a cup of cocoa or beef tea at a nominal charge; also at 4 o’clock on both shifts a cup of tea was provided free to every worker.

"Fatigue Study.—As a result of much thought it was decided to select one of the best and most practical forewomen to undertake the duties of studying all of the operations in succession, in order to provide data for the study and elimination of Fatigue. The Armistice was signed before the scheme could be started.

"Crèche.—In 1917 it was decided to obtain sanction for the establishment of a crèche, having accommodation for 60 or 70 babies, especially children of soldiers’ wives and widows working in the Factory. The idea was enthusiastically taken up by the workers, and within a short time there was raised by voluntary subscription and other means £1,200, or a quarter of the total cost.

"Extra Official Duties.—In addition to the foregoing the Welfare Department undertook the dispensation of the money collected from the workers for distress purposes, chiefly through the offices of the Welfare Outdoor Visitor. The Welfare Supervisor was also a member of the Hospital Committee, which was responsible for issuing admission forms to any of the workers requiring hospital or convalescent treatment. The Welfare Supervisor was responsible for convening the Girls’ Recreation Committee. This Committee provided a piano, gramaphone and library for the Dining Hall; they also rented a V-3
Recreation Field, which they equipped with garden seats; they founded three different Girls' Football Teams, and were responsible for organising many Red Cross Entertainments, both in the Canteen and in various Hospitals round about the City. They also defrayed the cost of many picnics for wounded soldiers."

III. Progress in the Smaller Controlled Firms.

In contrast to the large scale examples already quoted, the following accounts by welfare officers of the Department illustrate the limits of practicable improvements in certain small controlled establishments:

(1) A small firm employing, in June, 1916, 55 women (in addition to men) on springs and axles for Lewis gun carts, etc.

The work was said by the factory inspector to be heavy and very dirty, the women of a "rough Black Country type," working from 6 to 6 and 6 to 1 at about 16s. a week. The factory was old and inconvenient, with no arrangements at all for washing. The management was said to be "not really unsympathetic, but the need to consider welfare conditions for their workers had not struck them." By October, 1916, on the recommendation of the welfare officer, one of the women employees had been made responsible for the discipline of her fellow workers, some washing arrangements had been made and everything was much tidier. A year later (when the numbers had grown to 500 men and boys and 100 women) the welfare officer reported that caps and overalls had been provided for the women workers and there was general improvement. "Although it will always remain a rough place of the usual Black Country type, the arrangements are satisfactory on the whole."

(2) An old established firm of bolt and nut makers, whose head was said to be "ready and anxious to do anything for the welfare of his workers."

Here in June, 1916, there were 300 women employed—"a good type whose fathers and mothers had been in the trade. There were women of 70 years old who came when they left school; their daughters and relations were also working." Their earnings were said to average 14s. 6d. per week of 54 hours. Discipline was wholly by men. There was no provision for washing except one broken basin, since the girls were said to prefer to use the "suds" from their work. The welfare section recommended the appointment of a woman supervisor, the provision of a mess room and of means of washing. By the date of the Armistice no welfare supervisor had been appointed, but washing arrangements were somewhat improved and a canteen had been built despite real difficulties as to a site.

(3) "A small factory founded in the eighteenth century, with dirty and rather dark shops, next to a refuse heap, two miles from anywhere."

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1 C.E. 1260/15.  
2 C.E. 1227/15.
Saucepans, stewpots, hand grenades, were being made in February, 1916, by 60 women and 300 men. The factory possessed a mess room. The girls made any complaints to the foreman "with the cook as intermediary." The welfare section recommended the appointment of a forewoman to look after the girls, better washing accommodation and a cloak room. By October, 1918, a woman charge hand had been detailed to act as supervisor, the place was a good deal cleaner, and two or three basins had been provided, but no further washing arrangements had been made as the girls were said to prefer to use buckets. The firm stated that it was not doing well financially and could not afford to provide a cloak room.1

As has been said, some of the most complete systems of provision for industrial welfare were to be found in certain controlled establishments. In others, especially in the smaller factories, progress had often perforce to be slow, as measured by the rate of acceleration applied to industry during the war.

1 C.E. 1918/15.
CHAPTER IX.

CONCLUSIONS.

I. The Significance of the Munitions Welfare Movement.

(a) Welfare and the Department's Labour Policy.

The significance of the welfare movement among munition workers cannot be fairly estimated without some reference to its contemporary setting.

The Department's policy with regard to welfare and working conditions was a logical complement to its control of the supply of labour as well as of war material. If the maximum output of munitions was to be obtained, it was clearly essential to have a reliable supply of labour. Hence the different restrictions on labour imposed by the Munitions of War Acts. To a great extent, these restrictions and the welfare measures of the Department were negative and positive aspects of the same policy of securing stability and efficiency of labour in the interests of output; and their efficacy can be judged best in conjunction. Thus, the much criticised "leaving certificate" rules, under Section 7 of the Munitions of War Act, were issued in order to keep restless workers from moving from factory to factory; the same end could be, and was in many firms, reached, apart from their standards of wages, by the provision of good conditions and considerate management. Bad time-keeping, as has been pointed out in detail, could be dealt with either by deterrent or constructive treatment; petty disputes and strikes—virtually forbidden under Part I. of the Munitions of War Act, but constantly occurring—could be prevented in many cases by good standards of discipline, and by exercise of the "tact" which employers frequently said was the first requisite of welfare supervision.

It is indeed possible to over-estimate the connection between these two sides of labour regulation. No improvement in working conditions or friendly intervention in individual firms would, of course, prevent strikes on industrial principle, nor would they cure fundamental antagonisms between capital and labour. Thus while much of the industrial unrest among munition workers centred in the Clyde districts, where working and living conditions tended to be bad, it also expressed itself in frequent strikes in the Coventry engineering works and in the new aircraft factories, where special consideration had been given to the workers' comfort. But with full acknowledgment of its limitations in this respect, the welfare movement should be considered as a complement to the so-called "industrial compulsion" of the Munitions of War Act and its first amendment.
(b) Industrial Welfare and Other Social Movements.

The period of the war coincided with a marked development of civic consciousness, taking form in multitudinous common activities, prescribed by Government Departments or organised spontaneously, and controlled by "local representative committees" drawn from all classes, including labour. These operated with varying effectiveness to meet many common needs, and supplied a training ground in combined action for social welfare outside the sphere of normal municipal administration. It coincided also with a notable increase of interest in and provision for health, public and individual, and with a marked rise in the standard of living of the working class as a whole, and especially in the position of the "bottom dog"—the unskilled workman—together with that of women and young people as wage earners. The movement for a parallel improvement in working conditions was a natural corollary to these three lines of development. Were the works, it might be asked, in which was passed the greater part of the waking day of the industrial worker to be isolated from the effects of these and similar movements?

The demand for better working conditions, as distinct in this case from shorter hours, was beginning to become effective among wage earners before the end of the war; and the movement for "joint control" in industry was preparing to give expression and direction to this through the welfare committees attached to the National Industrial Councils in certain industries and the growing welfare activities of works committees.

(c) Some Current Opinions.

This movement towards industrial welfare was, as has been already indicated, not without criticism.

Apart from conservative opposition in some cases to changes in organisation and from reluctance in other cases, chiefly of bad relationship with their workpeople, to provide anything beyond essentials for their benefit, employers complained of the expense involved. The standard of industrial welfare set by the Department, despite Government allowances towards part of the cost, involved a firm, it was said, in payments of a large amount for wages and salaries for unproductive workers—charwomen, canteen waiters, cloakroom matrons, cooks, charge-hands, nurses, welfare supervisors, doctors. Such provision, in so far as it was primarily for the benefit of women workers, must affect the standard of wages payable to women in industry, while, if it was for the benefit of men and women workers alike, greatly increased efficiency of labour was required in competitive production to compensate for such expenditure. To this objection the Department could reply by quoting the emphatic opinion of a number of successful employers, who asserted from their own experience that "welfare pays," by improved timekeeping, by more efficient labour, by the prevention of disputes in the works, by the checking of labour wastage, and by change of "tone" in the works

1 Cf. L.R. 5581 passim for representations on this point by the Employers' Consultative Committee.
which was reflected in output and factory costs. It was, however, a type of criticism that could not be readily and completely disposed of, especially in the smaller firms, where such expenditure inevitably worked out at a comparatively high rate per head of the employees, and in firms where provision for welfare did not produce an immediate increase in efficiency or smooth working.

The attempts of the Department to popularise provision for industrial welfare were to some extent handicapped by the fact that propaganda for its adoption by employers began almost at the same time as energetic propaganda to induce workmen to accept the dilution of labour. "What are the employers getting at?" was a question reported in the early stages of the welfare movement by those in touch with the trade union rank and file. Welfare measures were, it was said, an attempt to increase output, desirable indeed during the war, but leading ultimately to employers' profits. This suspicion recurred, as the efforts to persuade the workmen to agree, in fact as well as in theory, to the suspension of trade union privileges was followed by growing industrial fatigue, by resentment among certain types of workers over the "debadging" of skilled men, and over the Department's efforts to hold the balance between the interests of the skilled and unskilled workmen (as in the Trade Card negotiations of 1916-17 and the granting of the 12½ per cent. bonus of 1917-18), and at the same time to support the adoption of systems for payment by results in which some workmen feared that their standard rates were to be submerged. In practice, workers were commonly very ready to avail themselves of good accommodation and the help and friendship of supervisors, nurses and doctors; in theory, distrust of bureaucratic intervention and of capitalist "philanthropy" reappeared at intervals; while certain types of the workers felt and urged that they were being offered *panem et circenses*—subsidised² canteens and recreation grounds—in place of the reconstruction of industry. By the date of the Armistice, workmen as a whole, like those represented by the Woolwich Trades Council,³ probably fully accepted the welfare movement, whether inaugurated by employers or by a Government Department, in so far as it had actually come their way. A large number, however, claimed to control it; *i.e.*, to have an effective say in the adjustment of their working conditions, meals, ventilation, starting hours, discipline, as well as cf hours and wages.

Outside critics sometimes said that this work of spreading the welfare of munition workers was beyond the sphere of a temporary Department created for the rapid production of war material, and that it should, in fact, if undertaken at all, have been left⁴ to the Home Office. This has already been discussed, and it has been represented that a new "extra-legal" standard could best be reached by an employing Department, exercising no compulsory powers, for which public

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1 "The more we produce, the more idlers will have to waste, and the more skilled men we will be able to spare for Churchill to play Napoleon with." (General Secretary's letter, Boilermakers' *Monthly Report*, November, 1919.)
2 Appendix I.
3 See p. 49.
opinion was not yet ripe, and unhampered by the disciplinary duties necessarily exercised by the Home Office in the enforcement of the Factory Code.

But apart from this question of relations between Departments, it might be asked whether it was in principle desirable to centre the workers' welfare in either a Government Department or an individual firm. Should the State thus take power to enforce (as in the Munitions of War Amendment Act and the Police, Factories, etc., Act of 1916) not only the necessary minimum required for efficiency of output, but also the amenities of industrial life, such as those offered by canteens? This, it might be argued, was indeed an advance on the spirit of factory legislation bequeathed by Shaftesbury and his supporters and acquiesced in by employers in the forties of last century.

Further, should such amenities, from whatever source instigated, cluster round any one place of employment? The firm could thus absorb the seven ages of life of a workman, who might, without exaggeration, attend the factory crêche as a baby, play on its recreation ground as a child, join its works school and scout troop as a boy, belong to its football club and social institute as a youth, bring up his family in one of its cottages, receive medical treatment during illness or accident in later life with financial help from the management or the works sick fund, and end his days as the pensioner of the firm or the works benefit society. One disadvantage in such comprehensive schemes is, as has been suggested by a well-known employer, the temptation to use them as a form of advertisement and thus lose all the advantage aimed at therein as a link between capital and labour and a stimulus to esprit de corps in the factory. The theoretical objections to such a connection between the workman and the individual firm have been already discussed; they appear equally in all criticisms, from the point of view of either capital or labour, of "prosperity-sharing" or profit sharing as between capital and labour. Apart, however, from this problem of industrial relationships there is a further point of principle involved in the question (which was raised in another form, in the trade union world, by the unofficial Shop Steward movement)—should the locality or the works—the tie of neighbourhood or of occupation—be the centre of the workers' interests other than those strictly connected with the earning of wages? With the shortening of the working day and the growth of leisure for the manual worker, this question became of practical importance. The experience of the Ministry of Munitions did not, however, continue long enough for its solution.

II. Some Effects of Control by the Department.

Leaving these unsettled questions of principle, some results of the Department's policy with regard to welfare and working conditions

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1 Hist. Rec./R./346/105.
among munition makers may be summarised. These results were often singularly incongruous in appearance, though not in fact, with the ostensible aims for which the Department was created.

(a) Results in Munition Works.

1. The welfare policy of the Department ensured a standard of physical comfort for nearly 350,000 workers in national factories and government establishments, much above the minimum required under the Factory and Workshop Acts, and it stimulated a similar provision of canteens, rest-rooms, ambulance rooms and other material comforts, to a greater or less degree, in a large proportion of the other controlled establishments, in which at least 400,000 women munition workers were employed. This increased comfort was extended, though to a considerably less extent, among a million and a quarter men and nearly a quarter of a million boys similarly employed by controlled firms and in national factories.¹

2. It pushed forward the movement, existing in a very limited number of factories before the war, to focus in some one responsible person, or section of the management, the care of the health and physical needs of a firm's employees. The title of "welfare supervisor," or "welfare department," was an admittedly cumbrous description of the functions of such an officer or group of officers, but was generally adopted at the time as a description of their rapidly extemporised duties. By the date of the Armistice 550 supervisors of women, and 275 boys' supervisors had been appointed from the Department's panel, and it was estimated that there were 1,000 women supervisors of different grades in the munitions works of the country.

3. The Welfare Section stimulated the provision of special training for this new branch of factory administration, so that training for welfare supervision or its equivalent was, even after the special needs of the munition factories ceased, a recognised part of the programme of the social science schools of most universities. The Department was not able definitely to standardise the training or the equipment required for these officials, though careful consideration was given to the subject. Nor did it enforce their appointment, except in most of the national factories and in those in which T.N.T. work was done. But it created and fostered a demand for them, and greatly increased the quantity and quality of the available supply.

4. The Department similarly organised and greatly extended the sphere of the works doctor, through the appointment of such officials to a large proportion of the national factories. These doctors, with the specialists at head-quarters, to a great extent diminished, though they did not prevent, the dangers to workers of handling the poisonous sub-

¹ See Vol. VI., Part IV., for detailed statistics.
stances required for the supply of explosives. Their work, and the studies of physiological effects of fatigue, of good and bad ventilation, and other conditions of employment, made by experts connected with the Department, led to improved conditions for munition workers, but also showed how large a field of industrial hygiene remained to be explored either by official or unofficial agencies. Efforts to regularise work and improve time-keeping equally showed the need for more detailed future study of the subject, in connection both with the workers' health and with factory organisation. During the war, however, the Department could claim to have improved time-keeping among munition workers by methods of deterrence exercised by investigation officers and munitions tribunals, and by the more positive action of improved transit and organised welfare.

5. Through this policy of promoting health and comparative comfort in factories the Department entered on the far more difficult problem—difficult, because psychological rather than material—of labour management. The acceptance of munitions tribunals, established chiefly to enforce a simple standard of workshop discipline, was, to some extent, a recognition, equally by employers and workers, that labour management on the one side and the observance of discipline on the other was, at least in time of war, of national and not merely of local or sectional importance.

6. The establishment of the welfare supervisor in factories, warmly recommended by the Welfare and Health Section of the Department, was also an acknowledgment, new to many firms, that the handling of labour needs special care. The special training of forewomen and women charge-hands, one of the solutions of administrative difficulties suggested and in a few cases introduced for the small factory or the firm with scattered branches, or equally, the promotion of the welfare supervisor to a definite position on the staff with rank as a manager, was a recognition of the need for some such special allocation of powers and for improvement in the detailed management of labour, so far, at least, as women were concerned. The welfare supervisor, often an unspecialised social worker thrust into the position to "look after" the women and young people in a factory, tended steadily to obtain definite functions, whether as a nurse or a games mistress on the one side, or an "employment manager" or "apprentice master" on the other.

The scope of welfare supervision was still indeterminate at the date of the Armistice, though there seemed to be, as has been indicated, some tendency to separate the "managerial" from the "social" side—the control of employment from the provision of recreation. But whatever the developments of the supervisor's position (and these must obviously vary with the age and type of workers and the size of factory concerned), its significance remained unchanged, as a recognition of the "human needs of labour" and the need for some substitute for the lost personal touch in the big industry between over-busy representatives of capital and of labour.
Probably it was from this point of view that most welfare supervisors approached their work during the war.

7. The Department was closely concerned with problems of hours of work for munition workers, but its staff, as has been said, approached the administrative problems of regulating hours from wholly different points of view.¹ No ideal arrangement was possible during the war, but, in conjunction with the Home Office, the Department shortened the hours of munition workers after the extreme pressure of 1915 and the first eight months of 1916 was over, and secured the adoption of such shifts and breaks in long spells of work as should secure as much rest as then appeared possible for women and boys and girls. Incidentally, in dealing with the workers' holidays, with the regulation of overtime and with the proposed curtailment of the normal working day towards the end of the war, constant evidence was received both of the vigour of the survival in twentieth century Britain of local industrial usages and also of the dominance of wages questions in current industrial problems.²

The Department built, or promoted the building of, 11,738 flats and houses for munition workers. It provided hostels for more than 23,500 workers and secured further accommodation in a large number of other cases, together with lodgings and billets in private houses for munition workers. Two complete colonies at Birtley and Gretna were created by it, and its influence dominated the social life of the working-class population of a number of the smaller towns, such as Carlisle, in and near which munitions were produced.

8. In addition to its comprehensive housing policy, the Department provided directly for canteens and messrooms in the great majority of the 150 national and government factories, while the Central Liquor Control Board approved, on behalf of the Department, the canteens of some 740 controlled establishments and recommended the writing off of their capital cost to the extent of almost £2,000,000. During the last nine months of the war the Department controlled the food supplies of these canteens, which were estimated to be available if required for a million persons daily.

These two sections of the Department's activities are recorded in detail elsewhere,³ but reference to them is unavoidable in an account of the general policy of industrial welfare of the Ministry of Munitions.

9. In carrying into effect this policy of control in the interests of efficiency, the Department maintained the principle that the State should, to a great extent, finance the emergency cost of such provision—a principle adopted on a very wide scale in the Government's housing policy of 1918-19. The proportion of such expenditure from which the owners of a factory were thus relieved is indicated in detail in Appendix I.

¹ See p. 100. ² See pp. 120, 131, 132. ³ Vol. V., Parts IV. and V.
(b) The Progressive Adoption of Welfare Standards.

The above is a short summary of the action taken by the Department to ensure the efficiency of munitions labour in a time of continued stress and to realise in some degree its responsibility as a model employer. The machinery for these ends had, like that of the shell factories, in many cases to be rapidly improvised, and the results of its working cannot be measured accurately, although they undoubtedly diminished the bad effects on the workers of their efforts to "deliver the goods."  

The welfare movement stimulated by the Department was not, however, confined to munitions works. The Factory Inspectors' Annual Report for 1917-18 bore witness to the permeation of standards of welfare to the non-munition trades, such as

"cotton and woollen and worsted textiles, in laundries, in potteries, in biscuit factories ... where conditions, with honourable individual exceptions, have long been stationary, but here too ... the new movement has begun to take effect. ... In these and many other developments moving towards social welfare in non-munition factories in 1917, there is really less sudden a growth than it is apt to be considered. Enlightened workers have been asking for these things, and enlightened manufacturers have been demonstrating for many years that these improving conditions are both rightly demanded and practicable." "Before the war came, the Inspectors knew of a greatly increasing and extending desire on the part of manufacturers to improve the conditions of factory life beyond the statutory minimum, and the Inspectors have steadily worked both to respond to and increase that desire. Now common-sense awakened sees that the pace must be greatly quickened ... It is not only in controlled and national factories that material advance has been made. The whole spirit of management has quickly changed in many factories and industries where no new welfare order runs, and where State control of profits has not entered."  

It is not possible to gauge accurately the extent to which this extension of industrial welfare was directly a reflex action, during the war, of the Department's propaganda, any more than it is possible to say definitely to what extent official control of munition workers' wages assisted in their increase in non-munition trades. In both cases probably the reflex action was considerable. In its control of wages, the outstanding work of the Department was its contribution to the principle of standardisation by its adhesion to the principle of national wage advances under the auspices of the Committee

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1 Cf. the medical evidence before the War Cabinet Committee on Women in Industry. [Cd. 135 and 167 of 1919].
2 Cd. 9108 of 1918, pp. 16-17. See also Cd. 340 of 1919 (report for 1918).
3 See Vol. V., Parts I. and II.
on Production, by its establishment of rates of payment which should be common to the women in all the different munition trades, and by its sanction to the elimination of many of the local differences in wage rates which had outlived the conventions or the economic causes to which they owed their origin. The control of welfare and working conditions introduced even more complex, though perhaps less contentious, problems than those connected with rates of wages and the working day. But here, too, the Department succeeded to a great extent in setting and reaching a standard. It did this, not primarily by compulsion, but by offering examples, advice or information, together with financial concessions. It utilised for this purpose its unparalleled position as an employer and the right of entry into factories exercised by its various officials. Much of its work had necessarily to be temporary, and welfare supervisors looking round in 1919 on deserted workplaces and canteens, might feel that the welfare movement had been as transitory as the workers. It is, however, fair to conjecture that this was not the case. Employers in many districts had seen the success of welfare measures on a large scale. Workers had, despite discomforts of overcrowding and long hours, been employed in a large proportion of the larger factories under good conditions, with consideration as definite as numbers would allow for health and general well-being. The tide that bore back "munition girls" after the Armistice to small workrooms or laundries or other industries, or possibly to domestic service, ensured the permeation of welfare standards to other employments and to more backward places. The effects were similar, though probably less, in the case of men munition makers. The transplanted workman, as he ceased to be required, e.g., for "diluted" labour in the big engineering shops, or for work in one of the aeroplane factories in which welfare conditions were as a whole good (but in which the advent of workmen from some dozen different trades caused almost insoluble difficulties of wages and hours), took back—in some cases at least—a standard of a reasonable degree of civilisation of industry. By July, 1918, 40 per cent. of the men and nearly 28 per cent. of the women engaged in industry were employed on munitions work in its widest sense,¹ and the welfare movement had therefore a wide possible sphere of influence.

This permeation of standards of industrial welfare, like the training in esprit de corps and common action obtained, for better or worse, by the workers aggregated in the big munition districts, was clearly one of the indirect social results of the production of war material for the Ministry of Munitions.

III. The Bequest of the Welfare Movement in Munitions Work.

The production of munitions put back the standard of hours of work, of the regulation of wages, of the liberty of labour to those of

¹ See Vol. VI., Part IV.
the reigns of George IV., or, in some degree, of Queen Elizabeth. In face of this retrogression, the first Minister of Munitions foretold in February, 1916, the contribution to social progress of the welfare movement lately inaugurated by his Department.

"It is a strange irony, but no small compensation," said Mr. Lloyd George, "that the making of weapons of destruction should afford the occasion to humanise industry. Yet such is the case. Old prejudices have vanished, new ideas are abroad; employers and workers, the public and the State, are all favourable to new methods. This opportunity must not be allowed to slip. It may well be that, when the tumult of war is a distant echo and the making of munitions a nightmare of the past, the effort now being made to soften asperities, to secure the welfare of the workers, and to build a bridge of sympathy and understanding between employer and employed, will have left behind results of permanent and enduring value to the workers, to the nation, and to mankind at large."

If the welfare work of the Ministry of Munitions did not reach this ideal, yet, in addition to the immediate results attained, it left in 1919 a definite bequest to the progress of industry.

(a) A Contribution towards "Scientific Management."

It gave, and advertised, a demonstration of the application of scientific methods of labour control, as outlined by the Health of Munition Workers Committee and by other experts. This

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1 The Department was more than once reproached for its reversion to "Elizabethan principles" of labour regulation. (Cf. Vol. V., Part II., pages 67 and 116, and Parliamentary Debates (1916), H. of C., LXXXV., 1734, etc.) The analogy between some of the provisions of the Munitions of War Act of 1915, and the Statute of Artificers of 1563, is of at least historic interest. Section seven of either Act limited the worker's right to fresh employment without a leaving certificate, and imposed penalties on both workman and employer for contravention of this provision. Equally, the employer's right to dismiss the worker was limited in either Act. The Statute of Artificers gave power to the State, as represented by local J.P.s, to fix wages, in accordance with cost of living and other circumstances, both for men and women, with penalties for employers exceeding these rates. (Cf. Sections 4(2) of the Munitions Act of 1915, and 6 and 7 of the Amending Act of 1916). It anticipated the Hours of Labour Policy of (different) sections of the Ministry of Munitions in fixing hours of work during part of the year at from 5 a.m. to 7 or 8 p.m., which equalled the working day of the engineer who was doing an "extra quarter" as overtime; in securing two hours for meal-times in this period, and even in providing for rest pauses during work, "half-an-hour at the most for the workman's sleape when hee is allowed to sleape, the which is from the mydst of May to the mydst of August." It anticipated the Ordering of Work Regulations for good order and time-keeping under Section 4 (5) of the Munitions of War Act, by its special provision for regular attendance "upon paine to lose and forfayte one peny for every hour's absence, to be deducted out of his wages that shall so offende," with very heavy penalties for insubordination during working hours. Even the prohibition of strikes by the Munitions Act was anticipated by the Act of Queen Elizabeth in section 10, which forbade a workman, under punishment of £5 fine and one month's imprisonment, to leave unfinished the building of a church, ship or mill—"work of national importance." The powers taken by the sixteenth century statute to obtain forced labour for employers (sections 3, 5 and 17), were not, however, despite the current catchwords of "industrial compulsion," re-asserted in the Munitions Acts.
application was admittedly very imperfect, but it marked a definite step forward in methods of production in this country, on lines similar to those followed at the same time by some of the "scientific management firms" of the United States, but avoiding the rather grotesque expedients of certain American pioneers.

(b) THE CORRELATION OF AGENCIES.

It began to break down the barrier, both within and without the factory, between industry and what is vaguely called "social" work, i.e., the improvement of conditions of life by official and unofficial action. The war, in part, lifted the veil over factory life and lessened the gap existing between the administration of social and industrial laws. It may fairly be claimed that it is to the advantage of both forms of administration to bridge this gap, and that the welfare movement in munition factories was a step towards this. Thus the welfare supervisor (under whatever title) was able to supply a valuable link between the employees of the large factory and the application of recent social and industrial legislation in connection with Workmen's Compensation, Social Insurance, War Pensions, Trade Boards, etc.—legislation which is apt to prove a burden to the busy employer, and to lose much of its benefit to the employee, without intelligent and comparatively leisured interpretation. Similarly, attention was drawn from the other side to the need of co-operation between the life of the factory and the work, e.g., of the school doctor, the club worker, and the continuation school. The Welfare Section left clear sign-posts to guide advance in this direction.

(c) A DEMONSTRATION IN STATE SOCIALISM.

The assumption by the Department of responsibility for the efficiency and the general well-being of munition makers led its officers, as has been said, into a number of apparently incongruous activities. The following is a small selection from the subjects thus considered:

The provision of a factory herd of cows (for T.N.T. workers); the relative merits of cocoa and milk as a beverage for such workers; the energy value contained in suet puddings; the cost of hockey sticks and boxing gloves; the erection of swings; the purchase of flower seeds; the establishment of play centres for children; the choice of models, utilitarian and æsthetic, for factory caps and overalls; the requirements of a boys' holiday camp; the pros and cons of "mixed clubs"; the area of washing trough required per worker; the merits of different kinds of soap and soap boxes; the comparative advantages of crèches and of their own older relatives for the care of babies whose mothers were employed in munition factories; the overcrowding of tramcars and the supply of ferry boats; the equipment, down to the last saucepan and floor mat, of hostels or of village centres such as Birtley and Gretna; the degree of fatigue produced by housework or by shell production respectively (as a factor in decision as to the length of the day or night shift); the influence of holidays and of works cinemas as stimuli to output.¹

¹ C.E. 1013/13; C.E. 1280/15; L.R. 1459/2; L.R. 8584; L.R. 218/45; Hist. Rec./R./346; C.E. 437 15; L.R. 2258, etc.
This medley of subjects may seem a *reductio ad absurdum* of State socialism or of "grandmotherly administration." Individual welfare, however, and the complex influences, material and immaterial, that lead to efficiency are inevitably varied; questions such as those enumerated were dealt with at headquarters promptly, and with full recognition that they were essentially matters of local concern; and the two spheres in which the detailed care of the Department was most exercised, at Birtley and Gretna, fully stood the test of demands for output.

**IV. Distribution of the Work of the Welfare and Health Section.**

The highly varied work of the Department with regard to the welfare and working conditions of munition workers was, after the Armistice, distributed as follows:

The care of the welfare of factory boys was attached to the Training Department of the Ministry of Labour; and an active Boys’ Welfare Association carried on, unofficially, energetic propaganda for the spread of the movement.

Similarly the promotion of women’s industrial welfare was transferred in part to the Training Department of the Ministry of Labour, while the Employment Exchange Department undertook responsibility for the registration of candidates for supervisors’ posts. The Home Office also fostered the welfare movement, and issued in 1919 an explanatory pamphlet on the subject. It also resumed, in full, control of hours of labour of protected persons. A strong central Institute of Welfare Workers further supplied an unofficial organisation for standardising welfare work and making it known.

Legislative provision for the extension of the welfare movement was in full operation when the work of the Department ceased. The Home Office continued to issue welfare orders under the Police, Factories, etc., Act of August, 1916. The Trade Boards Act of 1918 (Section 10) authorised Trade Boards to "make representations" to Government Departments with regard to working conditions in their trades, while in the organised industries an increasing number of Joint Industrial Councils were beginning to consider questions of hours, conditions and training. When the work of the Welfare Section finally closed the introduction of legislation for a 48-hour week for all factory workers had been definitely promised.

The diverse activities of the Extra-mural Subsection were absorbed in part by the Ministry of Health (*e.g.*, in connection with the Maternity and Child Welfare Act, 1918); in part by the Home Office and Board of Education (in connection with "Juvenile organisations Committees"); in part by local authorities in the administration of the Education Act of 1918, and by many unofficial local organisations providing for the weekly wage-earner’s leisure.

---

1 *Welfare and Welfare Supervision in Factories and Workshops.*
The scientific research which contributed so much to the Department's work, through the Health of Munition Workers Committee and its own experts, was carried on in a different form by the Industrial Fatigue Research Committee, whose monographs on the relation of industrial conditions to output began to appear in 1919. Attention was concentrated on one very practical side-issue, the prevention of industrial accidents, by special enquiries undertaken, in connection with the Workmen's Compensation Act, and by energetic propaganda carried out in individual works by an unofficial body, the "Safety First" organisation, which took form in 1918, on the lines of a similar movement in America.
APPENDICES.
APPENDIX I.

Welfare Finance.

The cost of welfare provision in munitions works was borne to a very considerable extent by the taxpayer, inasmuch as a large proportion of such expenses was deducted from the surplus contributing to the munitions levy or the excess profits tax.

(a) "Intra-Mural" Welfare.

Canteens and messrooms.—In November, 1915, it was agreed by the Department that the cost of the provision of canteens and messrooms in controlled establishments might, in calculating the profits of such establishments for the purpose of the Munitions Levy, be written off to the extent approved by the Canteens Committee of the Central Control Board (Liquor Traffic). From January, 1917, when the Munitions Levy was abolished, the Commissioners of Inland Revenue applied the same principle to the assessment of Excess Profits. In July, 1918, when the Central Control Board was no longer responsible for munitions canteens, the Commissioners of Inland Revenue stated that it was outside their powers to continue this arrangement, and proposals for direct Government grants towards the further provision of canteens, up to a yearly value of £565,000, were laid before the Treasury and were under consideration when the Armistice terminated the whole scheme of State help for canteens in controlled establishments. In November, 1918, up to 65 per cent. of the cost was virtually being paid from the taxes.

In national factories the Department undertook to provide canteens, and in many cases the cost of the canteen was included in the general cost of the factory as a whole.

Running expenses of canteens in controlled establishments were met from sales or provided by the firm, and might not be included in the factory working expenses, which were exempt from the Munitions Levy or Excess Profits Duty. A prolonged discussion with the Treasury on the question of responsibility for the payment of running expenses in national factory canteens ended in January, 1917, in a compromise. The Ministry undertook to pay (1) capital cost of building, installation, and equipment; (2) cost of maintaining buildings; (3) current cost of lighting and heating; (4) cost of cleaning, if done by the factory staff. The remaining expenses, including salaries, fuel, etc., must be met from the sales.\(^1\)

It has already been explained that the majority of these canteens did not pay their way, but that those responsible for their establishment

represented that on educational grounds such loss might be condoned, and that it was impossible to apply to them the standards of profit and loss applicable to ordinary working-class restaurants.

Shortly after January, 1917, an accounting system was installed in national factories, in consequence of which the percentage of net loss to total takings of 20 to 23 per cent. up to 31 March, 1917, was reduced in the following half-year to 13.78 per cent., and for the half-year to 31 March, 1918, to 6.43 per cent. For the half-year ending 30 September, 1918, in which the accounts of 113 canteens were audited, the net losses submitted to the Treasury were £49,010 15s. while surpluses amounting to £6,865 1s. 2d. were carried forward in the accounts of 30 canteens. For the half-year ending 31 March, 1919, during the very difficult period of canteen trading which followed the Armistice, losses of £67,268 14s. 4d. were shown, while the surpluses carried forward were reduced to £4,526 2s. 10d.

In addition, national factory canteens under the management of caterers or voluntary societies were assisted by the Ministry to the extent of £11,268 in the period from 31 March, 1917, to 31 March, 1919, inclusive.¹

Canteens under the Inspection Department showed losses to 31 March, 1919, amounting in all to £6,699 15s. 8d., while a surplus was shown in the Inspection Depot canteen at Park Royal of £2,060 2s. 11d.

Between November, 1915, and November, 1918, 867 schemes of canteen provision in controlled establishments had been approved, and writing off allowances had been recommended to the value of £1,909,135. At the date of the Armistice, 733 privately owned munitions works, with 870,000 employees, had canteens.

On 21 August, 1918, Mr. Kellaway quoted the total number of canteens available for munition workers as 900, providing for a million, and used daily by 500,000, and involving a capital cost "to the Government" of £3,500,000.²

_Cloakrooms, rest rooms, first aid rooms, etc._—In 1916 it was intimated to firms that the cost of this provision would be allowed to be written down to such an amount as would fairly represent their value to the owner at the end of the period of control.³ Up to this point their cost might be deducted from excess profits, in whole or in part, if approved by the Welfare Section.

It was agreed in February, 1918, between the Board of Inland Revenue and the Department, that the provision of ambulance rooms, first aid equipment, etc., would in general be allowed as a working expense, but if the cost appeared excessive (e.g., over £500), or if the rooms seemed to have a permanent post-war value, a suitable writing off allowance would be recommended to the Board of Inland Revenue. The provision for welfare accommodation, messrooms, lavatories,

¹ Hist. Rec./R/346/39. The accounts of the canteens at Woolwich Arsenal, Gretna, Waltham and Enfield are not included.
² (Printed) Weekly Report, No. 156, IX. (24/8/18).
cloakrooms, was rather less liberal. Small sums below £100 might be charged as a working expense with the approval of the Welfare Section. Those under £1,500 might be recommended for writing off up to 50 per cent. of their value; while firms wishing to spend more than £1,500 were referred to their District Surveyor of Taxes.

Non-controlled establishments were directed to apply to the Board of Inland Revenue direct for permission to charge the cost of these buildings as a working expense or to claim a writing off allowance.¹

In national factories, cloakrooms, messrooms, and first aid rooms were provided and maintained as a factory cost.

Welfare supervisors.—The salaries of welfare supervisors might be written off if they were approved by the Welfare Section, i.e., were appointed from the Department’s panel or formally approved after appointment.

Overalls and protective clothing and seats in factories.—Reasonable expenditure, approved by the Department, was held to be a working expense. This usually covered the supply of two caps and overalls per woman employed in any one financial year.

The provision of stools was held to be capital expenditure. No writing off of their cost was allowable except for renewal.²

The Department represented to the Treasury, on 5 January, 1917, that the cost to controlled firms of providing welfare accommodation, with the salaries involved, should be treated on the same liberal footing as that of canteens, either by writing off the cost or by direct Treasury grants, on the principle that subventions for such purposes should be made in a manner readily comprehensible by those directly concerned. It was further urged that such grants would meet the case of those firms which had no excess profits. The Treasury, however, on 20 February refused to sanction the principle of direct grants for such ends. In passing the Munitions of War Amendment Act in 1916, "it was clearly the intention of Parliament that the employer should be responsible to the Minister for the conditions of employment in his establishment; but the proposed practice of making grants from public funds towards the cost of canteens and other amenities would result in the transfer of responsibility from the employer to the Minister."³

At the end of 1918 it was calculated that the cost of welfare provision (including salaries, but excluding cost of canteens) worked out at £2 per head as initial cost, £1 per head as yearly cost, in three average firms with about 1,000 workers. The expenditure sanctioned by the Department for such provision in a typical month in the last year of the war amounted to £14,000 among 38 firms.⁴

¹ Hist. Rec./R/346/135.
² M.W. 183899.
⁴ Welfare Officers were informed that recommendations for new buildings or alterations should be based on the "minimum necessary accommodation required of the simplest and most economical kind," both on account of the increasing need for economy in labour and materials and of the opposition to "dilution" raised by unnecessary recommendations. (12/6/17, etc.). Hist. Rec./R/346/120.
(b) Extra-Mural Welfare.

Expenditure on extra-mural welfare was small by comparison with the cost of intra-mural work, partly because of the obviously lesser need for buildings, land and salaries; partly because, where such need existed, the Department was commonly asked only to supplement private effort.

Recreation Schemes.—Munitions firms began to develop recreation schemes, with the approval of the Department, toward the end of 1916. Joint civic recreation schemes developed in 1917.

It was arranged in February, 1918, that when a controlled establishment incurred expenditure on a recreation scheme sanctioned and approved by the Welfare and Health Section, that section should recommend to the Board of Inland Revenue that contributions by the controlled owner be allowed as a working expense up to an amount not exceeding 10s. per head of those benefitting by the scheme. Such expenditure might not normally be devoted to the purchase of land or construction of buildings. It was intended to cover initial, not running, expenses. If such provision appeared to have a substantial post-war value which would remain in the firm’s ownership, allowance was made “not by way of treating the expenditure in whole or part as a working expense, but by granting a writing-off allowance, the Welfare and Health Section recommending to the Board of Inland Revenue such allowance as they considered reasonable, having regard to the probable post-war value. Where a firm disagreed with the writing-off allowance recommended, it was open to the owner to approach the Board of Inland Revenue, when his liability to Excess Profits Duty for the final accounting period was under consideration, and claim under Section 40 (3) of the Finance (No. 2) Act, 1915, a deduction of any amount by which the difference between the cost and post-war value of the asset in question exceeded the writing-off allowance already granted.

The Treasury was “prepared to consider” similar applications for national factories; and, in fact, allowed the Finance Department, on the recommendation of the Welfare and Health Section, to make a grant up to 2s. 6d. per head of the numbers employed. This 2s. 6d. grant was the most usual form. The money so accruing was used both for capital and current expenditure. In some cases, especially in the smaller establishments, a larger sum was required. Wherever more than 2s. 6d. was sought, special Treasury sanction had to be obtained.

1 L.R.W. 1108.
2 “Where it appears to the Commissioners of Inland Revenue, on the application of a taxpayer in any particular case, that any provisions of the Fourth Schedule to this Act should be modified in his case, owing to a change in the constitution of a partnership . . . or to the necessity in connection with the present war of providing plant which will not be wanted for the purposes of the trade or business after the termination of the war, or to any other special circumstances specified in regulations made by the Treasury, those Commissioners shall have power to allow such modifications of any of the provisions of that schedule as they think necessary in order to meet the particular case.”
Uncontrolled firms were given the same privileges with regard to claims for recreation expenses, subject to the approval of the Home Office instead of the Ministry of Munitions.

Crèches.—In 1917 the Treasury approved grants of 75 per cent. of the cost of the establishment, extension and equipment of day nurseries for the children of munition workers, and 7d. per head maintenance grant for each 12 hours attendance. The total expenditure was as follows:

<table>
<thead>
<tr>
<th>Date Range</th>
<th>£</th>
<th>s.</th>
<th>d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/3/17 to 31/3/17</td>
<td>..</td>
<td>..</td>
<td>1,999 14 3</td>
</tr>
<tr>
<td>1/4/17 to 1/4/18</td>
<td>..</td>
<td>..</td>
<td>11,210 11 11</td>
</tr>
<tr>
<td>1/4/18 to 1/12/18</td>
<td>..</td>
<td>..</td>
<td>7,990 0 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£21,200</strong></td>
<td><strong>6 2</strong></td>
<td></td>
</tr>
</tbody>
</table>

Forty-one nurseries were assisted. They were inspected by the Board of Education, which audited the accounts for payment of grants.\(^1\)

Hostels.—On 7 July, 1917, the Treasury sanctioned an expenditure of £5,000 on private hostels, "whose existence has been of proved value to munition workers, and may be expected to be of value during the continued activity of the munition works of the district." This sum might be spent on (i) grants towards the capital expenditure incurred in starting or carrying on hostels, and (ii) maintenance grants at the rate of not more than 6d. per head per diem in the case of six clearing hostels.\(^2\) In the case of these last hostels, there were special and obvious difficulties in making them self-supporting.

This grant was renewed in August, 1918, by which time grants had been made to 16 of the hostels inspected by the Welfare Section. The total sum expended up to December, 1918, only reached £4,837 4s. 9d., leaving a surplus of £5,162 15s. 3d. on the Treasury grants.

The grants made consisted mainly in sums of from £100 to £300 to small hostels, provided by semi-"charitable" bodies.

Institutions, etc.—The sum of £470 was spent between 17 August, 1917, and 12 June, 1918, on grants to seven institutions helping munition workers—the Barrow hospital, the Hereford general hospital, the Lancaster district nursing associations, etc. Small sums were also sanctioned and paid to the Travellers’ Aid Society (£15) for help to munition girls on journeys in 1917, and in payments on account of a "sickness and emergency fund."\(^3\) Only £186 had been spent on account of this fund by the end of November, 1918, and of this £100 went to the expenses of an emergency hostel for the large number of women and girls, including munition workers, stranded at Holyhead owing to the overcrowding of the cross-channel boats in the summer of 1918.

\(^{1}\) L.R. 2960.  
\(^{2}\) L.R. 2710/2.  
\(^{3}\) L.R. 2710.
These grants were made in small sums by the district welfare officers, e.g., for travelling expenses and in case of sickness, and, except in extreme urgency, "with the approval of headquarters in each case."

The upkeep of works hospitals, but not their provision, except in so far as the cost was increased by war conditions, might be sanctioned as a working expense. Special payments of 3s. and 4s. a day to hospitals, for in-patient treatment to T.N.T. workers, were authorised.

The Maharajah's Fund.—This fund consisted of £6,000, presented by the Maharajah Scindia, on 22 July, 1915, with two additional sums of £50 and £20. It was given in January, 1916, to the Welfare Section for the benefit of munition workers, and was spent on such matters as pianos and books for hostels, grants for recreation clubs, tools and seeds for munition girls' hostels, swings for munition workers' children, a camp for Woolwich boys, lectures by the Y.M.C.A. National Council, etc. £4,385 18s. 6d. had been spent at the end of November, 1918.

1 Cf. C.E. 1017/15. (October, 1917.)
2 C.M. 4/2733; L.R. 218/2.
APPENDIX II.

(Chapter VI., pp. 107 ff.)

**Sunday Labour. Statistics, 1916-17.**

*(a) Employment on Sunday Labour in Controlled Establishments on Non-Continuous Processes.*

<table>
<thead>
<tr>
<th></th>
<th>1916.</th>
<th>1917.</th>
<th>1918.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of firms employing Sunday labour on non-continuous processes.</td>
<td>812</td>
<td>593</td>
<td>632</td>
</tr>
<tr>
<td>Total number of employees in firms working on Sunday:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Women</td>
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<td></td>
<td></td>
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<tr>
<td>Total number of employees in firms working on Sunday:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of employees working per Sunday:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of firms working every Sunday.</td>
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<td></td>
<td></td>
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<tr>
<td>Number of firms in which women are employed every Sunday.</td>
<td></td>
<td></td>
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</tbody>
</table>
### Percentage on Sunday Labour of Total Employed in Various Classes of Establishments.

<table>
<thead>
<tr>
<th>Month</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
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<td></td>
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<tr>
<td>April</td>
<td></td>
<td></td>
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<tr>
<td>May</td>
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<tr>
<td>June</td>
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<tr>
<td>July</td>
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<tr>
<td>Aug.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sept.</td>
<td></td>
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</tbody>
</table>

#### Males

<table>
<thead>
<tr>
<th>Month</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
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<td></td>
<td></td>
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<tr>
<td>April</td>
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<td>July</td>
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<td>Aug.</td>
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<td></td>
</tr>
<tr>
<td>Sept.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Government Establishments

<table>
<thead>
<tr>
<th>Week ending</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

#### Non-Government Establishments

<table>
<thead>
<tr>
<th>Week ending</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

#### Total, including Miscellaneous

<table>
<thead>
<tr>
<th>Week ending</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

#### Total, including Rubber, Wood, and Other Trades

<table>
<thead>
<tr>
<th>Week ending</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Females.

|---------|------|------|------|------|------|------|-------|------|-------|-------|------|-------|

### Government Establishments:

<table>
<thead>
<tr>
<th></th>
<th>1916.</th>
<th>1917.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Factories</td>
<td>7.5</td>
<td>6.5</td>
</tr>
<tr>
<td>National Projectile Factories</td>
<td>8.0</td>
<td>6.0</td>
</tr>
<tr>
<td>National Shell Factories</td>
<td>8.0</td>
<td>11.0</td>
</tr>
<tr>
<td>National Filling Factories</td>
<td>11.5</td>
<td>6.0</td>
</tr>
<tr>
<td>High Explosives and Propellants</td>
<td>37.5</td>
<td>44.5</td>
</tr>
</tbody>
</table>

**Total, including Miscellaneous** | 11.5 | 9.5  |

### Non-Government Establishments:

<table>
<thead>
<tr>
<th></th>
<th>1916.</th>
<th>1917.</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Chemicals and Explosives</td>
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</table>

**Total, including Rubber, Wood Trades and other Trades** | 3.0  |

*The figures given in the table are obtained by calculating the actual numbers engaged on each Sunday as percentages of the mean of two proximate monthly returns of total numbers employed,*
### APPENDIX III.

(Chapter VI., pp. 115 ff.)

**Overtime, 1916-17.**

(a) Average Number of Hours' Overtime Gained per Head of Males Employed on Overtime.

<table>
<thead>
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(b) Average Number of Hours' Overtime Gained per Head of Females Employed on Overtime.

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# APPENDIX IV.

(Chapter VI., pp. 122 ff.)

**The Shift System in Government Establishments.**

**Percentage of Employees on Various Shift Systems on a Date Approximating to the Middle of Each Month.**

**Males.**

<table>
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<th>17 Nov</th>
<th>15 Dec</th>
<th>12 Jan</th>
<th>16 Feb</th>
<th>16 Mar</th>
<th>13 Apr</th>
<th>8 May</th>
<th>15 Jun</th>
<th>13 July</th>
<th>17 Aug</th>
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<td>79.0</td>
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| National Filling Factories: | | | | 29 : 5 | 30 : 5 | 29 : 5 | 31 : 0 | 33 : 5 | 49 : 0 | 37 : 5 | 34 : 4 |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| One Shift                   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Two Shift                   | 15 : 5 | 43 : 5 | 45 : 5 | 46 : 5 | 42 : 0 | 54 : 0 | 52 : 5 | 45 : 5 | 47 : 0 | 44 : 5 | 41 : 5 | 52 : 6 |
| Three Shift                 | 31 : 5 | 1 : 5 | 1 : 5 | 0 : 5 | 10 : 0 | 10 : 0 | 0 : 5 | 7 : 5 | 3 : 0 | 3 : 0 | 4 : 5 | 2 : 7 |
| Not stated                  |   |   |   |   |   |   |   |   |   |   |   |   |   |

| High Explosives and Propellants: | | | | 38 : 0 | 38 : 5 | 44 : 0 | 38 : 5 | 39 : 0 | 41 : 5 | 45 : 0 | 43 : 5 |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| One Shift                       |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Two Shift                       | 13 : 5 | 12 : 0 | 6 : 0 | 9 : 0 | 11 : 0 | 10 : 5 | 10 : 5 | 15 : 0 | 11 : 5 | 10 : 7 |
| Three Shift                     | 39 : 0 | 36 : 0 | 37 : 5 | 39 : 5 | 36 : 5 | 42 : 0 | 36 : 0 | 38 : 0 | 43 : 5 | 44 : 8 |
| Not stated                      |   |   |   |   |   |   |   |   |   |   |   |   |   |

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### APPENDIX IV—continued.

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* Percentages given in brackets include November figures for a National Projectile Factory which failed to make a return for December.

† Percentages do not include figures for Liverpool (3,546), which made a late return.

‡ Percentages given in brackets include November figures for a National Filling Factory which failed to make a return for December.
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VOLUME V

WAGES AND WELFARE

PART IV

THE PROVISION OF CANTEENS IN MUNITIONS FACTORIES

1921.
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PART IV.

THE PROVISION OF CANTEENS IN MUNITIONS FACTORIES.

I.—The Canteens Committee of the Central Control Board
(Liquor Traffic).

When the war broke out the movement towards industrial canteens was making steady progress. In the case of certain trades and processes (e.g., the explosives trades, manufacture of lead and arsenic, and electric accumulators), the provision of rooms for taking meals was compulsory under the Factory Acts and Regulations, but in the years preceding the war there was a growing tendency for employers to provide not only mess-rooms, but also cheap restaurant facilities for their employees. In this, the food industries—the chocolate and biscuit makers—were the pioneers, their example being followed by soap-makers, dyers, tobacco manufacturers, etc. An enquiry made in 23 large factories in June, 1914, showed that the average number dining daily at these factories was 65,495, of whom 27,373 were males and 38,122 females.

This movement was stimulated by the crusade against the excessive drinking alleged to be prevalent among munition workers, inaugurated by Mr. Lloyd George, then Chancellor of the Exchequer, in his speech at Bangor on 1 March, 1915, and resulted in the creation of a new temporary authority known as the Central Control Board (Liquor Traffic).

In lieu of a policy of prohibition, the policy of exceptional control in limited areas was adopted, and the Defence of the Realm (Amendment) (No. 3) Act became law on 19 May, 1915. This Act enabled the Government to set apart for special treatment in the matter of the liquor trade any areas where, on account of munitions manufacture or transport or the training of military or naval forces, the continuance of the peace time facilities for the sale of intoxicants would interfere with the successful prosecution of the war. The administration of the powers of control entrusted to the Central Control Board (Liquor Traffic), which was established as the prescribed Government authority for the purposes of the Act by an Order in Council of 10 June, 1915, does not concern us here, except in so far as it throws light on the movement for the establishment of industrial canteens.

Among the duties imposed by Parliament on the Board was “the positive and constructive task of facilitating and encouraging, and, if necessary, themselves undertaking the supply of food for munition and transport workers, and they immediately appointed a “Canteens Committee.”

1 Reference to the provision of mess rooms in factories and workshops is to be found in the Annual Reports of the Factory Department since 1893. See, for instance, Factory Inspectors’ Annual Report for 1909 (pp. 42, 54, 81, 106, 127, 133, 134, 144); for 1910 (pp. vi., xviii., 38, 71, 73, 96, 115, 119); for 1913 (p. 8).
The membership of this committee was as follows:—

Sir George Newman, M.D. (Chairman, also a member of Central Control Board).

Major the Hon. Waldorf Astor, M.P.


Mr. William Towle.

Mr. Cane (Secretary).

Mr. Higgins (Assistant Secretary).

(a) General Principles.

The considerations which led the Central Control Board to appoint this committee were expressed in the last section of the Board's first report,¹ issued on 12 October, 1915.

"It has been necessary in this report to enlarge on the restrictive action of the Board, as it is in that direction that their proceedings have so far been before the public. The Board, however, attach very considerable importance to the constructive side of their work, and this side has received their careful consideration. The Board incline to the view that excessive drinking may often be traced to the want of adequate facilities for food, refreshment, and recreation, particularly in conjunction with long hours and overtime. The improvement of public houses and the provision of canteens may therefore do much to render less necessary the imposition of purely restrictive measures. The Board are accordingly encouraging by all the means in their power the efforts which are being made, by public spirited voluntary societies, or by other bodies interested, to improve the conditions by which adequate facilities for food and drink can be secured in munitions and transport areas."

Quite apart, however, from the liquor question with which circumstances had connected it, the need for industrial canteens, or some equivalent, must have arisen in the course of the second year of the war even amongst a nation of teetotalers. Only less completely than the soldiers themselves the munition workers were a mobilised army, suddenly aggregated in vast numbers in unfamiliar localities, whither the claims of national service or the lure of better wages had brought them. Existing local resources were quite unequal to feeding them. Such conditions encouraged drunkenness, and the institution of adequate arrangements for taking meals would remove the cause of the increased drunkenness; but the problem was essentially a problem of commissariat, not a problem of Temperance.

"It devolved upon the Board to secure the supply of proper and sufficient nourishment for the worker, in order to maintain his health, to increase his energy and output, and to diminish or prevent fatigue or exhaustion. The circumstances of the moment emphasised the desirability of vigorous action.

¹ Cd. 8117.
The enormous and rapid increase in the number of munition workers, their concentration in well defined districts, the local difficulty in obtaining food at reasonable prices, the distance from the factory at which many of them lived, all these were conditions which made more acute and pressing the whole problem of the food supply of the workers . . . . The real requirement is to supply for large numbers of persons at specified times a suitable dietary . . . . at a reasonable cost.

"In endeavouring to meet this requirement, the Board have proceeded on two collateral lines of action:—

"(a) The increase of facilities for obtaining suitable meals at public houses, and

"(b) The establishment wherever necessary of industrial canteens inside or within easy access of the works, supplying both substantial meals and light refreshment at reasonable prices.""¹

Eight months before these words were written, Sir George Newman, Chairman of the Canteens Committee, on 10 September, 1915, made his first report ² to Lord D’Abernon, Chairman of the Central Control Board, summarising the first three months’ work of the committee:—

"1. . . . . The Board have taken the view that in the first place the employer should be called upon to make canteen provision: failing him, some approved voluntary society should be encouraged to undertake the task; failing both of these, the Board would consider whether it was desirable for the Board itself to undertake the duty.

"2. In many places, the Board is informed that employers are themselves providing more or less adequate canteen accommodation, but up to the present we have no complete list of these canteens.

"3. In regard to the very numerous munitions areas where the employer for one reason or another has not hitherto taken action, I have to report that a number of public-spirited voluntary societies have commenced to undertake canteen provision. In order to co-ordinate such work, the Board has appointed an Advisory Committee consisting of the Canteen Committee plus representatives of such approved voluntary societies. The conditions for approving such societies have been carefully considered, and are set out in due form in prescribed regulations. The Advisory Committee has met several times, and we are now in a position to say that there are over 40 canteens in working order, and over 30 in process of establishment, and a still larger number in contemplation.

² Hist. Rec./R/346.1/1.
"4. The Central Control Board have applied to the Treasury for sanction to make grants in aid of capital expenditure for the provision of canteens by non-profit-making voluntary societies approved by the Board, and the Treasury have sanctioned the grant of a quarter of such expenditure. This grant will be made under prescribed regulations which are of a very simple form."

At the conclusion of this report Sir George Newman wrote:—

"It is desirable that the price of food should be sufficiently low to meet all requirements."

These words serve to indicate the general policy of the Board. But in the course of time the interpretation of this policy became a matter of acute controversy. Should the canteens be indirectly subsidised institutions? Or, should they, on the other hand, be made to pay their way? Again, if a policy expressed by the latter phrase were adopted, what precise meaning was to be attached to the phrase? Here was a problem on which the economy of regimental messes threw no light. In the army a soldier's pay is calculated on the assumption that his board is provided. In industry the provision of food in lieu of wages has long been recognised as a practice injurious to the worker as tending to keep down wages. Such methods of wage payment are therefore prohibited by law.

(b) Provision of Capital Expenditure.

From the first it was recognised that the canteens could not bear the cost of the capital expenditure on their building and equipment. As Sir George Newman's letter above quoted shows, much was due in the early stages to private subscriptions through the channel of voluntary societies. Patriotism suggested that here, as in the case of the Red Cross, was an opportunity for those not actively engaged in the war of contributing to the comfort and well being of those who were. The Central Control Board secured Treasury support for the efforts of these societies, and welcomed the aid which they could render. It soon became clear, however, that the expectation of an uninterrupted flow of public subscriptions to the funds of voluntary

1 The proportion of the grant was shortly afterwards raised to a half.
2 The Truck Act, 1831, Section 23, provides that "no deduction shall be made from the wages of a workman in respect of victuals dressed and prepared under the roof of the employer unless an agreement or contract for such stoppage or deduction shall be made in writing and signed by the artificer."
3 The following is the list of approved voluntary societies engaged in this work:—The Young Men's Christian Association; The Munition Makers' Canteen Committee (Lady Lawrence); The National Peoples Palaces Association, Ltd.; The Salvation Army; The Church of England Temperance Society; The Church Army; The Young Men's and Women's Christian Association (Scotland); The Young Women's Christian Association (Scotland); The Young Women's Christian Association (England); The British Women's Temperance Association (Scotland); The Glasgow Union of Women Workers; The Women's Volunteer Reserve; The Women's Legion (Scottish Branch).
societies was not likely to be realised. After the first excitement was over, the public not unnaturally reflected that the provision of canteens was after all a matter for the employers; nor did it appear reasonable that charitable contributions should be required in connection with the feeding of a class of workers so well paid as those employed on munitions were reputed to be. The value of the later services of these societies it is impossible to over-estimate; but they ceased, quite properly, to be of a financial character. "The conclusion forced itself upon the Board" says the third report of the Central Control Board, "that the services of the voluntary societies could best be utilised by employing them to manage canteens erected and equipped by employers."

In these circumstances it became clear that the Board must either render further financial assistance to the societies directly, or must devise some means of persuading employers themselves to provide canteens in their works. The latter course seemed preferable on all grounds, but chiefly because it afforded some guarantee for the permanence of the canteen movement and its continuance after the war. The Board, therefore, approached the Minister of Munitions and sought his sanction for an arrangement under which the proprietors of controlled establishments should be allowed to charge the capital cost of providing canteens at their works against the current profits of the establishment for the purpose of Part II of the Munitions of War Act, 1915. The Ministry, having obtained Treasury sanction, gave authority on 19 November, 1915, for the adoption of this proposal, which meant that about 65 per cent. of the capital cost was paid from the taxes. Buildings so financed were to be maintained permanently as canteens, except by consent of the Ministry of Munitions or the Government Department succeeding it.

(c) Withdrawal of "Writing-off" Concessions.

These concessions were originally granted by the Minister, when controlled establishments were subject to the Munitions Levy, under the wide discretionary powers given to him by the Munitions of War Act, 1915, in assessing the liability of controlled employers to that duty. The Munitions Levy was abolished on 1 January, 1917, and the collection of Excess Profits Duty from controlled firms devolved upon the Commissioners of Inland Revenue. The discretionary powers of the Commissioners in assessing liability to Excess Profits Duty were limited. They were, however, empowered to allow persons liable to the tax to write down any buildings or plant which they might provide during the lifetime of the duty to their post-war value. In ordinary circumstances, the post-war value could not of course be determined until after the war, but the Commissioners, feeling bound to honour pledges given by the Minister of Munitions with regard to the canteen concession, agreed to regard it as a case of special depreciation, and allowed the Canteens Committee of the Central Control

1 Cd. 8558 of 1917. 2 M.W. 45309.
Board to assess the post-war value of a canteen at a controlled establishment as soon as it was completed and in operation, and without waiting for the end of the war:

It was naturally assumed that the transfer to the Ministry of Munitions of the responsibility for canteen organisation would not affect the concession, and that the Commissioners of Inland Revenue would as readily accept recommendations from the Ministry of Munitions as from the Central Control Board. It was found, however, that this was not the case. On being approached the Commissioners explained that they had for some time past had misgivings as to the legality of the concession and on 19 June, 1918, they wrote to the Minister stating that the Commissioners

"feel that they ought to place on record their judgment that in the circumstances now existing the arrangement hitherto existing can no longer be regarded as conforming with Revenue Law."

The situation thus created was considered by the Munitions Food Advisory Committee, who referred the question to a sub-committee, with Lord D’Abernon as chairman. The sub-committee considered the alternative system of direct grants from Government funds in aid of the provision of canteens, but came to the conclusion that such a proposal would not be favoured by employers. They recommended strongly the maintenance of a system of writing-off against excess profits, and their conclusions were endorsed by the main committee.

A further effort was made to induce the Commissioners of Inland Revenue to abandon their position, but in a letter dated 26 July, 1918, the Commissioners replied finally that they felt bound, in fulfilment of their statutory duty, to terminate the arrangement hitherto in force.

It was agreed that it would be futile to pursue the matter further with the Commissioners, and on 15 August, 1918, Mr. Kellaway decided that the Treasury should be asked to sanction the payment to controlled owners of grants from Government funds not exceeding in amount 65 per cent. of the actual total cost incurred to provide a fully equipped canteen at a controlled establishment. A letter on these lines was addressed to the Treasury on 11 October, 1918. The total annual expenditure from Government funds if the proposal were approved was estimated at £565,500.

The Lords Commissioners of the Treasury did not reply until 15 November, 1918, when, of course, the entire situation had been changed by the signing of the Armistice. In their letter their Lordships directed that "in view of the cessation of hostilities, no further expenditure, whether by way of direct grants from public funds or the promise of writing-off allowances, should be incurred for this purpose."

1 L.R.F. 120/5.  
2 See below p. 18.  
3 L.R.F. 120/5.  
4 39136/18 (L.R.F. 120/5).
Some discussion followed as to the course to be adopted in regard to schemes approved but not begun before the Armistice was signed, and it was finally decided on 30 April, 1919, that the approval of such schemes must be cancelled and that the undertakings given in respect thereto must be withdrawn.

To all intents and purposes, therefore, the concession as to the writing-off of the cost of canteens at controlled establishments was in operation for three years, from November, 1915, to November, 1918. During that period 867 schemes of canteen provision at controlled establishments were approved and undertakings were given to recommend the writing-off of £1,909,135 in all in respect of these schemes.

II.—The Health of Munition Workers' Committee.

Closely connected with the work of the Canteens Committee of the Central Control Board was the work of another committee of which Sir George Newman was also Chairman, namely the Health of Munition Workers Committee, appointed with the concurrence of the Home Secretary "to consider and advise on questions of industrial fatigue, hours of labour, and other matters affecting the personal health and physical efficiency of workers in munitions factories and workshops."¹

When beginning their work, the committee no doubt derived a certain amount of guidance from the experience of those few private firms that had already instituted industrial canteens on their own account. These firms were principally in the food industry, but included also makers of soap, paper, tobacco, cloth and tin boxes. Short of the fully equipped canteen, provision of various kinds and degrees for the workers' meals—rooms for taking meals, facilities for warming up food and so on—was in existence in various places.² Some canteens included recreation rooms, gymnasia, baths, educational classes, etc., in addition to the dining room.

The Committee's memorandum on Canteen Construction and Equipment³ deals not only with utilitarian aspects, the lay-out, material of floors and walls, ventilation, etc., but also with aesthetic consideration. The very sound principle is laid down that the canteen should be internally and externally as unlike a factory as possible. Plans and elevations suitable for canteens of various sizes are provided.

¹ Its membership was as follows:—Sir George Newman, M.D. (Chairman; also member of Central Control Board, and Chairman of Canteens Committee); Sir Thomas Barlow, Bart., K.C.V.O., F.R.S.; Mr. G. Bellhouse, Factory Department, Home Office; Prof. A. E. Boycott, M.D., F.R.S.; Mr. J. R. Clynes, M.P.; Mr. E. L. Collis, M.B., Factory Department, Home Office; Dr. W. M. Fletcher, M.D., F.R.S., Secretary of the Medical Research Committee; Mr. Leonard E. Hill, M.B., F.R.S.; Mr. Samuel Osborn, J.P., Sheffield; Miss R. E. Squire, Factory Department, Home Office; Mrs. H. J. Tennant; Mr. E. H. Pelham (Secretary).

² Cd. 8133 of 1915.

³ Cd. 8199 of 1916—This and other memoranda were summarised in a published pamphlet "Feeding the Munition Worker."
The possible methods of management fall under three heads:—

(i) Direct management by the employer himself, if possible with the assistance of a committee of the workers. This would in almost every case necessitate the appointment of a manager or a manageress, to work under the employers or the committee's direction.

(ii) Management by a voluntary society, who would, to all intents and purposes, take over the entire management.

(iii) The employment of an outside caterer.

The choice of any one of these methods must be largely a matter of opinion, but it is very desirable that the employer and the workers should together take a personal interest in the working of the canteen, and this is clearly most easily secured by the first method.

On such lines as these the canteen movement grew steadily. The Munitions of War (Amendment) Act, 1916, empowered the Minister to require the establishment of a canteen in any controlled factory as a condition of approval. Similarly the Police, Factories, etc. (Miscellaneous Provisions) Act, 1916, empowered the Home Secretary by special order to require the occupiers of factories and workshops to make arrangements for preparing a supply of meals to their workpeople. As a rule, however, the movement was left to make its way on its own merits.

III.—Financial Control of Canteens in National Factories.

The Central Control Board undertook in January, 1916, the general responsibility for the organisation of canteens in the Royal Arsenals and in the National Shell, Projectile, Filling and Explosives Factories administered by the Ministry of Munitions:—

After preliminary discussion between officers of the two organisations, a letter was despatched from the Ministry on 3 January, 1916,¹ inviting the Board to

"undertake the general responsibility for the organisation of canteens in the Royal Arsenals, the National Shell, Projectile, Filling and Explosives Factories which are being erected by or for the Ministry. In some cases it is understood that satisfactory arrangements have already been made and in such cases no further action will be necessary. In other cases, however, it will doubtless be found that no provision has yet been made or that further provision is required, and in such cases the Minister desires that the Canteens Committee should make themselves responsible for seeing that there are satisfactory arrangements in operation at all the establishments in question. The Ministry will undertake to provide the building, lighting, heating and equipment of the canteens, and the Minister desires that the canteens should be run so as to be

¹ M.W. 28683/7.
self-supporting, including the cost of staff. It is not implied that the Canteens Committee should necessarily run the canteens themselves. It will be open to them to entrust the work to the Y.M.C.A. or any other body whom they approve for the purpose, or to leave it to the Board of Management or other local organisation.”

The Board’s reply was dated 22 January. After intimating willingness to undertake responsibility for the canteens at national factories the letter continues:

“I am to enquire whether it is the intention of the Minister that the Central Control Board should relieve the Boards of Management or other local organisations of their primary responsibility in the matter of canteen provision. The Board are of opinion that these local authorities will be eager to transfer to other shoulders the burden of organisation and management where such work is not immediately and directly concerned with the production of munitions of war, and for this reason it seems desirable to make it clear (if such is the intention) that while the Central Control Board will exercise general control and supervision over the provision of canteens at national factories, etc., it will be no part of their functions to organise each individual canteen.

“The Minister’s desire that the canteens should be self-supporting is one with which the Board are in full sympathy. They think, however, that its attainment is to be regarded rather as an ideal than as a condition, particularly where women are employed.”

The necessary instructions to the various departments of the Ministry of Munitions responsible for the control of the factories and to the factory authorities were embodied in a circular issued on 16 February, 1916, which stated that the primary responsibility for the making of adequate and suitable provision and for the proper management of the canteen when established would rest with the responsible authorities at each factory, subject to the general supervision of the Canteens Committee.

It will be seen that the correspondence had not defined with real precision the scope of the functions to be exercised by the Central Control Board or the extent of the Board’s responsibilities. At the time it was scarcely practicable to do so. The sentence in the Ministry letter of 3 January:—“In some cases it is understood that satisfactory arrangements have already been made and in such cases no further action will be necessary” almost implies that once a canteen had been organised and launched upon its career it would require no further attention from headquarters. The Central Control Board do not appear quite to have taken this view. They regarded their immediate task as one of organisation: thereafter they conceived that it would be their duty to keep the canteens under such supervision as would be

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1 M.W. 28683/7.
supplied by frequent expert inspection. Both the Ministry and the Central Control Board were agreed that a canteen must be regarded as an integral part of the factory to which it was attached, and that management by an organisation independent of and not subject to the control of the factory management could not be satisfactory. The possibility or desirability of creating a central organisation for the management of canteens, which would have installed its own managers and servants and would have made its own arrangements as to the purchase of foodstuffs and as to tariffs, does not appear to have been seriously considered. The establishment of such an organisation would have involved delay: the conduct of their canteens by an external and independent authority would unquestionably have been irksome and objectionable to the factory authorities, more especially where, as at the outset was generally the case, they were men accustomed to conduct their own concerns without interference. The line of least resistance was thus to leave each factory to make its own arrangements, subject to such expert advice as the factory authorities were willing to accept. The method of central management might, in the long run, have proved more efficient if it could have survived the friction and opposition which its establishment would have engendered, but the fact that it was ignored, despite the suggestive analogy of the Navy and Army Canteen Board, appears to indicate that so far as national factories were concerned it was not within the sphere of practical politics.

The first duty of the Board was obviously to take a survey of the position. It was found that in the majority of the larger factories canteens were in course of provision, sometimes on a large and elaborate scale. In the smaller factories, and notably the National Shell Factories, canteens had in many cases been provided or were in course of provision, and in others it was doubtful whether they were required. The canteens were generally managed by the factory authorities themselves through their own paid servants, but in a few cases the management was entrusted to such associations as the Y.M.C.A. or to outside caterers. To meet this last class of cases the Board caused to be prepared by its legal advisers a form of agreement which regulated the relationship between the factory management and the association or caterer by whom the conduct of the canteen was undertaken. This standard form of agreement provided that the caterer or association should meet the cost of food and of the necessary staff, and that the factory authorities should supply the premises and equipment, should light and heat the buildings, should supply fuel for cooking and maintain the canteen and its fixed plant in repair. Arrangements were made for the supply by H.M. Office of Works (Supplies Division) of the necessary furniture, crockery, cutlery and utensils on the requisition of the Board.

In the course of these preliminary visits and in correspondence which followed thereon the Board found reason to believe that many of the canteens which were in operation were being conducted at a loss,
and that their management would benefit from close supervision. The Board, therefore, took steps to strengthen their inspecting staff with the view that each canteen should be visited at least once a month. At the same time the need for some regular statement of the accounts of the trading in the canteens began to be felt, as obviously criticism of the efficiency of a trading concern can be of little value unless it be guided by adequate information as to the financial position.

The necessity of initiating a suitable system of accounting for canteens was at the same time receiving the attention of the Finance Department of the Ministry, and on 20 April, 1916, a letter was sent to the Board asking them to agree to a form of procedure in connection with current canteen accounts. Forms to be used in rendering periodical statements of accounts were sent and the Board was asked to arrange that canteen accounts should be kept separate from factory accounts. It was also suggested that the factory auditors should act as auditors of canteen accounts.¹

IV.—Canteen Deficits: A Controversial Problem.

Unfortunately at this point a serious disagreement on financial policy between the Board and the Ministry began to reveal itself². Primarily the question at issue was the interpretation of an ambiguous text. The Ministry's letter of 3 January, 1916 (already quoted) had said, "The Ministry will undertake to provide building, lighting, heating and equipment of canteens, and the Minister desires that the canteens should be run so as to be self-supporting, including the cost of staff." The Central Control Board took this to mean that the Ministry would provide not only the capital expenditure on lighting, heating and equipment but also the current expenses, and that a "self-supporting" canteen would be one in which the takings covered the cost of food and staff alone. The Finance Department of the Ministry on the other hand understood that the Ministry was only to provide the capital expenditure on these items, and that current expenses were in all cases to be covered by takings.³

But behind this matter of interpretation lay a difference of principle. The Board had already stated in their answer of 22 January that they regarded canteen solvency (even as interpreted by their own criteria, presumably) "rather as an ideal than a condition." Their position was that the canteen habit was a valuable one and that an artificially low tariff, employed as a temporary expedient, might act as an advertisement and thus promote an institution of national

¹ C.R. 3235 and 3259.

² The Central Control Board is unable to endorse the account of its views and policy given in this and the succeeding section. An alternative statement, prepared by Mr. P. R. Higgins, Assistant Secretary of the Board, is printed as an Appendix—see Appendix II.

³ The two views are stated in detail in C.R. 3269:—

(ii) The Central Control Board's view—Mr. Cane's reply of 8 August, 1916.
benefit. It was also urged that the encouragement of the canteen habit and the taking of good healthy meals increased output, and that a financial loss on the canteen account was more than balanced by a profit on the factory account. In other words, a losing canteen promoted "output," and output was the prime concern of the Ministry and of the nation. They cited in support of their policy "the almost universal practice of the private employers who have established canteens for their workpeople."

The standpoint of the Finance Department in opposing the policy of the Board is set out in a minute by Mr. Duckworth, Deputy Director of Munitions Finance, on 25 October, 1916.

He showed that there was considerable pressure for the lenient treatment of canteen accounts; the Chairman of the Canteen Committee, welfare supervisors, the supply departments, and the managers of national factories all urged generous treatment.

If interest in the immediate output was the ultimate end of the canteen movement, it would probably pay the Ministry to provide free meals; but if it was admitted that output was sufficiently satisfactory, and that it was desirable to look ahead and consider the benefit that would accrue from a general adoption of the canteen habit, then the prices charged in canteens should be so arranged as to meet reasonable charges for maintenance. The liberality of the Ministry should be restricted at the point at which it ceased to be an encouragement and became a discouragement to commercial firms to provide canteens for their workpeople. It was dangerous to allow canteen meals to be regarded as a subsidy in lieu of wages.

Another argument was that as additions to wages were specifically given to meet the extra cost of living, so the prices of food in canteens ought to have been raised *pari passu* with the cost of the raw material. Further, taking the long view, as it was probable that the earnings of working-class families would be lower after the war, while the price of food stuffs remained high, it was unwise as a matter of policy to inflate wages still further by the provision of unduly cheap food.

It is unnecessary to follow in detail the controversy that took place round these points throughout the year 1916. One unfortunate consequence was that the canteens themselves remained without authoritative guidance in financial matters and drifted into habits of reckless and slovenly finance. When canteens were first opened in national factories the Central Control Board had issued a form of trading account and balance sheet, but no detailed instructions as to the keeping of accounts. As a result, when in January, 1917, the audit of canteen accounts was begun, it was found that accounts were very irregularly kept, while in many cases the monthly accounts which were furnished did not disclose the true trading results, owing to the lack of definite interpretation of the correct allocation of expenditure between factory and canteen. In June, 1917, the Controller of Factory Audit and Costs, under whom a section had been set up to supervise canteen
accounts, issued some instructions to factories, and these were followed in November by a "Memorandum on the System of Accounting for Canteens in National Factories." In his report on canteens in national factories up to 31 March, 1918, the Controller of Factory Audit and Costs wrote:—

"If an efficient system of accounting and consumption records had been introduced at the outset it is probable that much of the losses incurred would have been avoided."

Early in January, 1917, an agreement was reached on a basis of compromise, and an agreed circular was issued to managers of national factories laying down the following allocation of expenses:

(a) The Ministry were to pay:

(i) The capital cost of building, installation and equipment.
(ii) The cost of maintaining the buildings.
(iii) The current cost of lighting and heating the premises.
(iv) The cost of cleaning the room at the beginning of the day, if done by the factory staff.

(b) The following were to be included in the price of meals:

(i) The prime cost of food.
(ii) The cost of preparation of meals, including the wages of cooks and the fuel for cooking.
(iii) The cost of service.
(iv) The maintenance of equipment.
(v) The cost of internal management (if any) and cleaners other than those referred to above.

It will be seen that the Finance Department had retreated a considerable distance from the position held in the previous July, when they demanded that all current expenses should be paid for by the canteens. None the less they had secured one essential point. Henceforth canteen charges were placed on a business footing. Both parties, Ministry and canteen, had their several liabilities clearly defined: there would be no further danger of the charge of "camouflaged charity."

Some time, however, necessarily elapsed before all canteens could adapt themselves to these strict conditions. It was one thing to institute a paying tariff in a new concern, quite another thing to introduce it into a concern whose customers had become accustomed to a losing tariff. The task was also made more difficult by the steady rise of prices due to the war. At the request of Dr. Addison, then Minister of Munitions, Sir George Newman submitted on 24 January, 1917, a memorandum on the causes of and treatment of deficits. These were many and serious. All but nine of the national factory canteens showed a deficit, and if the cost of fuel were shifted on to the expenses,
as had just been agreed, the number of solvent canteens would be reduced from nine to four. Sir George indicated as causes:—

(i) the desirability of attracting customers whose natural habit was to bring food from home.

(ii) the concentration of canteen business into one or two short periods, the cost of staff, as is usual where a "rush" business is transacted, being consequently heavy.

(iii) the extra cost involved in serving night meals.

(iv) the performance of unremunerative services, such as the warming up of food and the boiling of water.

(v) the difficulty of finding efficient managers.

Sir George inclined to his former view that these causes combined rendered deficits unavoidable save in exceptionally favourable circumstances, and he expressed the hope that "the development of the canteen habit would not be sacrificed to consideration of finance or the dictates of mere economic pedantry."

The Finance Department were however determined to take a less lenient view of deficits. As Mr. Duckworth wrote in comment on Sir George Newman's memorandum: "The real danger is lest canteens, and with them the canteen habit, may be definitely destroyed by disregard of considerations of finance."¹ It was unfortunately becoming clear that the Finance Department could not look to the Central Control Board for co-operation in this matter along the lines they intended to pursue. The deficits continued to increase and it became necessary to establish some new piece of machinery within the Ministry to deal with them.

V.—The Canteens Finance Committee (Ministry of Munitions).

On 1 March, Mr. (later Sir John) Mann, who had succeeded Mr. Lever as Assistant Financial Secretary, summoned a conference at which were present—Sir George Newman, and Mr. Agar, one of the Central Control Board's inspectors, Mr. Webster Jenkinson and Mr. Duckworth, representing the Finance Department, and certain representatives of supply departments at whose factories the canteens were established. This conference arrived at definite conclusions with regard to deficits in the past and future. A statement was sent to the Treasury setting out the position and asking sanction for the writing off of past deficits: and a special committee, known as the Canteens Finance Committee, was established to advise the Assistant Financial Secretary with regard to the monthly statements of accounts forwarded by every national factory, and to consider and report upon proposals for the financial and economic control of canteens in national factories. The committee contained representatives of the Finance Department,

¹ M.F./Local/178/8.
the Inspection Department and the supply departments. The business of the committee included:

(i) The consideration of audit reports on the working of the canteens.

(ii) The preparation of a statement for submission to the Treasury with respect to any deficits that might be disclosed.

(iii) The recommendation of payments to canteens where, owing to the poisonous nature of the work, the provision of food could be treated as a special medical precaution.

(iv) The consideration of suggestions for the prevention of deficits.

Mr. Mann, Assistant Financial Secretary, was chairman and Mr. Duckworth, secretary, succeeding Mr. Mann as chairman in September, 1917. The committee began by meeting once a week, and met twenty-four times in all during its year of existence, April, 1917 to April, 1918.

At the conference on 1 March, Sir George Newman consented to join the new committee, but he did so apparently on the understanding that it was to be a sub-committee of the Canteens Committee, of which he was chairman, including representatives of the Ministry departments concerned. When he found that the Canteens Finance Committee was constituted on an entirely different basis he took no part in its proceedings and subsequently resigned his membership.

Thus the two committees, the committee of the Board and the committee of the Ministry, worked side by side, entirely separately and not without friction, for the year of their joint existence.

The simultaneous existence of these independent committees can hardly be defended on theoretical grounds. It may well be maintained, however, that the Finance Department took the best course practicable at the moment in creating for the special purpose, on which it found itself in apparently interminable controversy with the Central Control Board, an instrument of its own entirely independent of the Board, while leaving the Board and its committee otherwise free to carry on those parts of their work around which no controversy had arisen.

1 Hist. Rec./R/346.1/5.

2 There is danger of confusion between two quite distinct 'Canteen Committees'.

(i) The Canteens Committee of the Central Control Board (Liquor Traffic), of which Sir George Newman was Chairman. This committee was in practice indistinguishable from the Central Control Board which it represented: the terms 'Central Control Board' and 'Canteens Committee' became virtually synonymous in Ministry usage and as such have been employed in this account.

(ii) The Canteens Finance Committee of the Ministry of Munitions, the institution of which has just been described. This will be referred to throughout by its title, and never as the Canteens Committee, though that description was often in popular use at the time.

3 Hist. Rec./H/346.1/3, p. 11.
The problem which confronted the Canteens Finance Committee was the problem of the deficits, as its terms of reference indicate. None the less a study of these terms of reference shows that the title of the committee was in a sense a misnomer. Finance is actually inseparable from organisation. It was the fact that the Central Control Board did not bear financial responsibility that made it an unsatisfactory body for purposes of organisation, once the canteen had been launched and started on its way. Conversely, the financial responsibility borne by the Canteens Finance Committee, more particularly its duties in the matter of the treatment and prevention of future deficits, compelled its activities to extend over the whole range of canteen organisation. At the same time it was not an executive body. Executive powers still resided as they always had done with the factory management, which in the case of national factories was the particular supply department of the Ministry concerned. All the supply departments and each new supply department, as it came to be created, placed a representative on the committee. Thus it was essentially a co-ordinating committee, and in addition to its function of financial criticism, formed the most convenient means of approach to canteens in national factories through their responsible departments.¹

Thus, in consideration of suggestions for the prevention of deficits, the committee was, in the course of 1917, visited by representatives of the Food Controller, in connection with such subjects as the utilisation of waste products. On another occasion the Food Controller sent a representative to place his views before the committee on the subject of economy in consumption, and secured the support of the supply departments to the lines on which he proposed to address, through selected speakers, the workers in national factories.² A further and most valuable contribution from the Ministry of Food was the offer, through the Canteens Finance Committee, of the services of skilled cooks to visit national factory canteens where necessary and give cooking demonstrations. This arrangement dates from 11 February, 1918.

But the raison d'être of the committee was the deficits. The seriousness of the situation is shown by the accounts of those national factory canteens, 60 in number, that were audited by the Ministry authorities.³ Of these canteens only two showed a profit when the various expenses were correctly allocated. The remaining 58 showed a total deficit of over £68,000. The committee at once undertook to cope with the situation. The causes of deficit seemed roughly to fall under two heads: bad management, which often took the form of uneconomical buying, and bad tariffs, which made a deficit inevitable with the best management, and were due in many cases not to bad management but to what the committee considered the bad financial principles inculcated by the Central Control Board. The deficits were

¹ Hist. Rec./R/346.1/5.
² Memorandum by Mr. Duckworth (Hist. Rec./R/346.1/5.)
³ See Appendix I.
referred to the several supply departments concerned for enquiry and report. In a few cases the supply departments preferred that the enquiry should come from the Canteens Finance Committee direct, but in the main the practice was for the chartered accountant who received the reports to call the secretary of the committee’s attention to deficits and their possible causes, and he in turn referred them for report to the various supply departments.

As a first step in the prevention of future deficits the committee passed resolutions at its first sitting on 4 April, 1917.

(a) The factory manager and canteen manager in each national factory should be formally acquainted that monthly deficits would not in future be allowed to pass without serious question by the committee.

(b) The canteen manager, with the concurrence of the factory manager, should be allowed to raise prices whenever, in his opinion, it might be necessary to do so, in order to avoid a deficit. All such rises were to be reported to Sir George Newman.

(c) Steps should be taken to ensure the provision of punctual and accurate monthly statements of account, and the Ministry’s auditors instructed to report at once on any points that seemed to require attention.

(d) Every national factory canteen should be instructed to send up a local purchases sheet monthly so that the committee might be in a position to judge whether the purchases were made economically.

These four resolutions mark the turning point in the history of the Ministry canteen management. Decisive action had at last been taken, and not at all too soon. As a result, and after a year’s work, the number of solvent canteens for the half year ending 31 March, 1918, was raised to 17 with a profit of over £6,000. The defaulting canteens audited still numbered 74, but their total deficit for the half year was under £36,000, or a little over half the total deficit shown a year earlier. The percentage of total loss less total profit of sales was reduced from 20 per cent. at 31 March, 1917, to 6\% per cent. for the half year ending 31 March, 1918.\(^1\)

These results even so may appear disappointing. Two considerations should, however, be borne in mind. First, it was no part of the policy of the Ministry to make a profit, as such, out of the canteens. The aim was to make both ends meet. From this point of view in several canteens showing a “negligible” loss the committee may be held to have achieved its purpose. Secondly, it must be remembered that the Central Control Board regarded financial loss as a definite item in their policy of popularising canteens at the taxpayer’s expense. The committee could at first only mitigate that system: had they attempted to reverse it, traditionally established as it was in the customers’ minds, they would probably have forfeited the custom of the canteens and so defeated their own ends. The continuous

\(^1\) See also Appendix I.
rise of food prices during their year of administration has to be borne in mind in estimating the achievement of the committee down to April, 1918, when its responsibilities were taken over by the Food Section of the Labour Department.

VI.—The Work of the Food Section, March—November, 1918.

With the opening of the year 1917, the prospects of a food shortage attracted for the first time the serious attention of the public. A Food Controller figured among the new Ministers created by Mr. Lloyd George's Government on its accession to power in December, 1916. Lord Devonport published his scheme of voluntary rationing in February, 1917. April was the month in which the "U boat" successes reached their maximum. The history of the food shortage and the measures by which it was met belongs to the records of the Ministry of Food rather than to the Ministry of Munitions. It will only be necessary here to touch on those aspects of the story which belong to the history of the canteen movement.

On 24 April, 1917, Dr. Addison, then Minister of Munitions, appointed a committee, known as the Munitions (Food) Committee, to enquire into and make recommendations for the adequate feeding of munition workers. The report of the committee,¹ issued on 7 May, reflected the state of mind of the mass of thoughtful people towards the subject at that date. In common with the rest of the country the committee showed a strong hostility to the idea of compulsory rationing by tickets, and a desire to avoid it at all costs. Indeed, the perusal of this report in the light of later events is calculated to create a vivid impression, both of the difficulties that faced the Ministry of Food at its inception, and of the successful manner in which these difficulties were overcome.

In April, 1918, the general system of rationing the whole population was introduced and the establishment of the Food Section in the Labour Department of the Ministry, superseding both the Canteens Committee of the Central Control Board and the Canteens Finance Committee, was practically coincident with this event.² The step had already been foreshadowed in a letter from the Minister (Mr. Churchill) to Lord D'Abernon, Chairman of the Central Control Board, on 13 February, 1918. Mr. Churchill wrote:—

"I am compelled to the conclusion that the present problems in regard to food, differing so materially both in character and extent from those which gave rise to the activities of the Canteens Committee, render it imperative for me immediately to take a much more intimate responsibility for the feeding of the munition workers than I have hitherto taken or needed to take . . . I feel I am bound to set up within the Ministry of Munitions itself a special department dealing with the subject, and I am now making arrangements to that end.

¹ Report of the Munitions (Food) Committee. (Copy in Hist. Rec./R/346.1/4.)
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It would be of the greatest assistance to me if you could spare as many as possible of your staff who have been concerned with the working of canteens, and I hope that Sir George Newman will continue to help us with his advice."

On 28 March, 1918, a General Memorandum was issued describing the organisation and functions of the Food Section, of which Mr. Martin Hall became Director. Its functions fell under three heads:—

(i) To inspect canteens at national factories and to advise the factory management on all questions relating to the feeding of munition workers.

(ii) To inspect the canteens at controlled establishments and to advise their proprietors on questions relating to the provision and maintenance of canteens, and to communicate with the Inland Revenue Department on questions of finance affecting the provision of canteens at such establishments.

(iii) To act as the sole means of communication between the Ministry of Munitions and the Ministry of Food on all questions affecting the feeding of munition workers.

Under this wide reference the Food Section was fully occupied in carrying on the work hitherto performed by the two Canteens Committees which it superseded, and in facilitating, with the help of the Ministry of Food, the provision of the food supplies required by munitions canteens. It also found itself closely preoccupied in the discussions which arose from the withdrawal by the Inland Revenue Department of writing-off privileges referred to above.

VII.—Growth of the Canteen Movement.

The following table illustrates the growth of the canteen movement:—

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<td>Number of Canteens</td>
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<td>Controlled Establishments</td>
<td>300</td>
<td>490,000</td>
</tr>
<tr>
<td>National Factories</td>
<td>135</td>
<td>150,000</td>
</tr>
<tr>
<td>Total</td>
<td>435</td>
<td>640,000</td>
</tr>
</tbody>
</table>

According to the records of the Food Section, 733 privately owned munitions works employing 871,046 persons were provided with canteens at the time of the Armistice.

When to canteens in controlled establishments the canteens in national factories are added, the number of canteens amounted to over 900, providing for 1,000,000 workpeople, and involving a capital cost to the Government of £3,500,000.

---

1 No. 73.
2 p. 5.
3 The 60 canteens in dockyards are omitted from the table.
Of course as the canteens increased in number, so did the munition works that required them. In March, 1917, the 600,000 employees in controlled establishments provided with canteens represented 36½ per cent. of the total number of employees in controlled establishments, and the 200,000 employees in national factories provided with canteens represented 83½ per cent. of the total number of employees in national factories. The total amount of the allowances from current profits of controlled establishments which the Board had up to that time (March, 1917) undertaken to recommend for the provision of canteens was £785,000, and the total payments made in subvention of voluntary societies amounted to £12,570. These figures (which refer solely to controlled establishments) work out at a Government expenditure of £1 6s. 8d. per employee. But the accommodation of these canteens did not suffice for the simultaneous feeding of all the employees in the various works, and taking the unit of canteen accommodation, the cost in September, 1916, worked out at £6 11s. per place.

From a pre-war standpoint the growth of the movement had been rapid. The third report of the Central Control Board (April, 1917) concludes:—

"There can be little doubt that the industrial canteen will become a permanent and essential feature of the modern factory. From the worker's point of view this is a great step in advance. To eat a carefully prepared meal in wholesome and cleanly surroundings is not merely a matter of health and efficiency, but is a direct preventive of alcoholic excess. The absence of civilising influences from factory industry has been its condemnation in the past. The industrial canteen aids in the destruction of this traditional reproach, and the stimulus imparted to the canteen principle during the last two years may be claimed as a substantial contribution to the humanisation of industry."

As regards national factories the canteen equipment was approximately complete, but the bulk of the munition workers were in controlled establishments, and here only two fifths had access to canteens. One reason was that the great majority of controlled establishments were too small to necessitate separate canteen accommodation. Of the 4,000 controlled establishments in September, 1915, more than half had less than 200 employees, and another quarter between 200 and 500.

Even as regards the controlled firms employing over 500 workers, the canteen movement had not reached half of the total number (900) by March, 1917. The reasons for this limitation were summarised, as follows, by Sir George Newman, in September, 1916.

"The period covered by the activities of the Board in the matter of canteens has been singularly unpropitious to the undertaking by employers of new enterprises not directly connected with the production of munitions. Both labour and
materials of all kinds were scarce and costly, and the delays in obtaining them and in securing the execution of building works have been both harrowing and vexatious. Moreover, many employers of the period under review have been required to take up new processes of manufacture, to adapt their plant or to install new machinery for work novel to them, and in many cases to employ female labour for the first time. They have also been much occupied with the actual work of manufacture under great pressure, and with problems of labour. It is hardly therefore a matter for astonishment that they have not shown eagerness to take advantage of the concession, when to do so could not fail to impose on them a considerable added burden of trouble and labour, and anxiety.

"As regards the attitude of employers in general, it may be said that their objections to the provision of canteens are based as a rule on practical grounds, e.g., that they have not available space, that they are not sure of making excess profits, that there is no demand from the workers, or that the management are already overworked. There is evidence, they say, of considerable scepticism as regards the usefulness or desirability of a canteen in their particular works, and a want of faith in the likelihood of the success of such an enterprise. Nor can it be denied that there is ground for this scepticism. It must not be overlooked that the prevailing habit among the workers has hitherto been to bring their meals with them to the works or to obtain them from or at home. The domestic budget is as a rule based upon this arrangement, and the weekly payments made by the workers to their wives, parents or landladies are supposed as a rule to cover the provision of the mid-day meal. Additional expenditure on meals at a canteen is, therefore, regarded as a dead loss, especially by the older generation of workers. The disturbance of a time-honoured domestic practice, which is involved in the purchase of meals at a canteen, is thus something of a revolutionary idea. The canteen habit can only by degrees gain acceptance among the working classes and the habit of economy which leads many men and women to prefer food brought from home, even if it be less appetising and less nourishing than the food obtainable in a canteen, is not easily to be overcome."
APPENDICES.

APPENDIX I.

*(See above p. 16.)*

Trading Accounts of Canteens in National Factories.¹

(a) Trading Results.

<table>
<thead>
<tr>
<th></th>
<th>Total number of Canteens.</th>
<th>Net Profit on Canteens showing Profit.</th>
<th>Number of Canteens showing Profit.</th>
<th>Net Loss on Canteens showing Loss.</th>
<th>Number of Canteens showing Loss.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To 31st March, 1917</td>
<td>60</td>
<td>£57 19 11 ½</td>
<td>2</td>
<td>£68,427 8 3</td>
<td>58</td>
</tr>
<tr>
<td>From 1st April, 1917 to 30th Sept., 1917</td>
<td>77</td>
<td>3,365 8 2</td>
<td>4</td>
<td>49,226 9 4</td>
<td>73</td>
</tr>
<tr>
<td>From 1st Oct., 1917 to 31st March, 1918</td>
<td>91</td>
<td>6,326 8 5 ½</td>
<td>17</td>
<td>35,539 7 2</td>
<td>74</td>
</tr>
<tr>
<td>From 1st April, 1918 to 30th Sept., 1918</td>
<td>113</td>
<td>3,926 12 1 ½</td>
<td>26</td>
<td>49,303 10 4</td>
<td>87</td>
</tr>
<tr>
<td>From 1st Oct., 1918, to 31st March, 1919</td>
<td>120</td>
<td>351 6 3</td>
<td>11</td>
<td>66,633 11 4</td>
<td>109</td>
</tr>
<tr>
<td>From beginning to 31st March, 1919</td>
<td>132</td>
<td>14,027 14 11</td>
<td>9²</td>
<td>269,130 6 5</td>
<td>123</td>
</tr>
</tbody>
</table>

¹ The canteens at Woolwich, Enfield and Waltham Abbey are not included.
² These were:—Litherland Explosives Factory; Glasgow (Mile End) Projectile Factory; Horley, Leeds (Oulton), and Neasden Central Stores Depots; Erith and Watford (No. 2) Trench Warfare Filling Factories; and King's Lynn Wood Distillation Factory.
(b) Periodical Trading Accounts.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canteen Takings</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
<td>£ s. d.</td>
</tr>
<tr>
<td>Sundry Receipts</td>
<td>570 9 2</td>
<td>651 0 1</td>
<td>989 8 5</td>
<td>2,481 10 11</td>
<td>2,925 7 7</td>
<td>7,617 16 2</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>338,566 13 8 1</td>
<td>333,271 2 9 1</td>
<td>454,775 16 6</td>
<td>531,230 19 8</td>
<td>309,881 16 4</td>
<td>1,967,726 9 0</td>
</tr>
<tr>
<td><strong>Provisions Consumed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Profit</td>
<td>292,818 6 2</td>
<td>270,223 7 10 1</td>
<td>334,141 9 5</td>
<td>379,258 18 1</td>
<td>233,725 3 11</td>
<td>1,510,167 5 5 2</td>
</tr>
<tr>
<td>Gross Loss</td>
<td>45,177 18 4 1</td>
<td>62,396 14 10</td>
<td>119,646 5 10 1</td>
<td>150,033 17 8</td>
<td>73,733 12 0</td>
<td>450,988 8 9</td>
</tr>
<tr>
<td>Percentage on Sales</td>
<td>13·36</td>
<td>18·76</td>
<td>26·37</td>
<td>28·27</td>
<td>23·86</td>
<td>22·95</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>82,539 3 2 1</td>
<td>78,805 16 5 1</td>
<td>109,080 6 11</td>
<td>147,597 16 1</td>
<td>102,738 18 7</td>
<td>520,762 1 3</td>
</tr>
<tr>
<td>Fuel for Cooking</td>
<td>13,740 12 2</td>
<td>12,193 2 7 1</td>
<td>15,705 6 9</td>
<td>18,063 18 8</td>
<td>12,537 14 2</td>
<td>72,240 14 4 1</td>
</tr>
<tr>
<td>Repairs and Maintenance</td>
<td>9,808 12 4 1</td>
<td>9,299 1 4</td>
<td>12,109 8 2 1</td>
<td>15,995 16 3</td>
<td>14,518 13 1</td>
<td>61,731 11 3</td>
</tr>
<tr>
<td>Printing and Stationery</td>
<td>1,508 17 4 1</td>
<td>1,758 15 11 1</td>
<td>2,572 18 3 1</td>
<td>2,696 8 6</td>
<td>1,767 0 11</td>
<td>10,304 1 0 1</td>
</tr>
<tr>
<td>Carriage, Motors, etc.</td>
<td>563 13 1</td>
<td>356 13 11</td>
<td>495 7 2 2</td>
<td>1,240 19 7</td>
<td>1,472 2 5</td>
<td>4,128 16 2 1</td>
</tr>
<tr>
<td>Travelling Facilities</td>
<td>1,181 10 9</td>
<td>1,070 2 4</td>
<td>1,388 5 7</td>
<td>2,051 0 3</td>
<td>1,013 7 5</td>
<td>6,704 6 4</td>
</tr>
<tr>
<td>Overalls</td>
<td>432 15 0</td>
<td>274 7 10</td>
<td>200 5 11 3</td>
<td>840 8 5</td>
<td>355 9 1</td>
<td>2,103 6 3 1</td>
</tr>
<tr>
<td>Discs</td>
<td>1,121 3 10</td>
<td>2,394 6 5 1</td>
<td>3,832 16 8</td>
<td>1,102 15 0</td>
<td>2,113 4 3</td>
<td>10,564 6 2 1</td>
</tr>
<tr>
<td>Interest</td>
<td>38 19 5</td>
<td>51 11 8</td>
<td>118 2 4</td>
<td>422 2 8</td>
<td>292 14 0</td>
<td>923 10 1</td>
</tr>
<tr>
<td>Rent, Rates, etc.</td>
<td>38 19 5</td>
<td>51 11 8</td>
<td>118 2 4</td>
<td>422 2 8</td>
<td>292 14 0</td>
<td>923 10 1</td>
</tr>
<tr>
<td>Cash Deficiencies</td>
<td>3,182 8 7 1</td>
<td>2,704 17 5</td>
<td>4,095 17 1 3</td>
<td>6,370 4 1</td>
<td>4,052 2 6</td>
<td>20,405 9 10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>114,117 15 10</td>
<td>108,908 16 1</td>
<td>149,847 5 9</td>
<td>197,348 19 10</td>
<td>142,438 17 6</td>
<td>712,661 15 0 10</td>
</tr>
<tr>
<td><strong>Total Expenditure</strong></td>
<td>406,936 2 0</td>
<td>379,132 3 11 1</td>
<td>483,988 15 2 1</td>
<td>576,607 17 11</td>
<td>376,164 1 5</td>
<td>2,222,829 0 6</td>
</tr>
<tr>
<td><strong>Net Profit on Canteens</strong></td>
<td>57 19 11 1</td>
<td>3,365 8 2</td>
<td>6,326 8 5 1</td>
<td>3,926 12 1</td>
<td>351 6 3</td>
<td>14,027 14 11</td>
</tr>
<tr>
<td><strong>Net Loss on Canteens</strong></td>
<td>68,427 8 3</td>
<td>49,226 9 4</td>
<td>35,539 7 2</td>
<td>49,303 10 4</td>
<td>66,633 11 4</td>
<td>269,130 6 5</td>
</tr>
<tr>
<td><strong>Percentage of Loss, less Profit on Sales</strong></td>
<td>20·23</td>
<td>13·78</td>
<td>6·43</td>
<td>8·58</td>
<td>21·59</td>
<td>13·01</td>
</tr>
</tbody>
</table>
APPENDIX II.

(See above, p. 11.)

Extract from Memorandum on the Supervision of Canteens in National Factories, by Mr. P. R. Higgins, Assistant Secretary to the Central Control Board (Liquor Traffic), September, 1919.

(The substance of what follows here has been incorporated above, pp. 11-14.)

* * * * *

In the course of the discussion on trading accounts it became apparent that a difference of opinion existed between the Liquor Control Board and the Finance Department [of the Ministry of Munitions] as to the interpretation of that passage in Sir H. Llewelyn Smith's letter of 3 January, 1916, which runs as follows:—

"The Ministry will undertake to provide the building, lighting, heating and equipment of canteens, and the Minister desires that the canteens should be run so as to be self-supporting, including the cost of staff."

The Finance Department read this passage as meaning that while the Ministry would provide a building fully equipped, all current charges thereafter for food, wages, fuel for lighting and heating and cooking, the maintenance of fixed and portable equipment and cleaning should be borne by the canteen from the trading receipts. The Liquor Control Board held that the meaning was that the canteen should bear the prime cost of food and the wages of the staff employed and nothing else.

The text of the letter is ambiguous and will support either interpretation. Being unable, therefore, to rely upon it both parties appealed to first principles and the criteria suggested by each are quoted below. The view of the Liquor Control Board is outlined in a letter to the Secretary of the Ministry of Munitions, dated 8 August, 1916:—

"If it be once admitted that a canteen in an industrial establishment cannot be expected to be a self-supporting institution on a commercial basis like a restaurant established by private enterprise, the decision as to the charges of which it should be relieved must depend upon practical considerations and must be based upon experience which will show how far such canteens can be self-supporting without jeopardising their entire usefulness."

Both sides were agreed that once the strict commercial principle was abandoned the allocation of current charges as between factory and canteen was arbitrary and each suggested a different canon for determining their incidence. The Liquor Control Board proposed to base the allocation on "practical considerations" of providing meals at prices attractive to the workers: the Finance Department advanced

1 The view of the Finance Department, as expressed in a memorandum by Mr. G. H. Duckworth, has been quoted in the text. (See above, p. 12.)
the view that the closer the approximation to the strict commercial basis the greater would be the willingness of the average employer to establish a canteen at his works. The Liquor Control Board considered that insistence on the strict commercial basis of charges would imperil the immediate usefulness of the canteens, and they were evidently of opinion that the creation of a demand for canteen facilities on the part of the workers was the best means of securing the permanence of the canteen movement. The Finance Department did not think that a development of the canteen habit stimulated by the sale of meals at less than the commercial price could be permanent, as private employers could not afford to maintain canteens on such lines. Both parties agreed that the prime cost of food and the wages of canteen staff must be met from canteen takings, and as these items represent together about 90 per cent. of the current charges in a canteen the field of discussion was narrow. It admitted, however, of controversy and accusations from the one side of "economic pedantry" and from the other of "disregard of considerations of finance" show that the discussion was not always conducted with amenity.

Ultimately, the question was settled by a compromise embodied in a circular issued by the Finance Department on 15 January, 1917, and signed by Mr. (now Sir) John Mann, the Assistant Financial Secretary. By this circular the various charges were apportioned between factory and canteen as follows:

"(a) The Ministry will pay—

1. The capital cost of the building, installation and equipment.
2. The cost of maintaining the buildings.
3. The current cost of lighting and heating the premises.
4. The cost of cleaning the room at the beginning of the day, if done by the factory staff.

"(b) The following charges should be included in the price of meals—

1. The prime cost of the food.
2. The cost of preparation of meals, including wages of cooks and fuel for cooking.
3. The cost of service.
4. The maintenance of equipment.
5. The cost of internal or domestic management (if any) and cleaners other than those referred to in (a) (4) above."

The circular in question included an important paragraph on the question of deficits on canteen trading.

"3. Deficits.—It is believed that with proper management the apportionment of expenditure indicated above should enable the canteen to be self-supporting and, unless in exceptional circumstances, deficits upon canteen working will not be chargeable against the factory or other Ministry funds."
"4. If deficits are already being incurred on the working of the canteen, or if the margin of profit has been relatively small, the foregoing instructions may necessitate a revision of the tariff. Before that step is taken, however, reference must be made to the Canteen Committee of the Central Control Board (Liquor) Traffic . . . ."

The Liquor Control Board had found in the course of their periodical visits that the majority of the canteens were working at a loss. Trading accounts were returned by 35 canteens for November, 1916, and of these only nine showed a profit on the month's trading. Even in these cases it was doubtful whether a profit would have been realised if the apportionment of charges prescribed in the circular of 15 January, 1917, had been followed.

The obvious suggestion was to raise prices. In the view of the Control Board, however, the causes which gave rise to deficits on trading were too varied and complex to be removed by this simple remedy. For the information of Dr. Addison, who had asked for a statement on the subject, the causes of deficits were summarised in a memorandum presented by Sir George Newman on 24 January, 1917. Briefly, the causes were:

(i) The danger if prices were too rapidly advanced that the men and women employed, who were not accustomed to spend money on meals away from home, would cease to purchase and would revert to the practice of bringing food to the works;

(ii) The concentration of canteen business in one or two short periods, the cost of staff as is usual where a "rush" business is transacted being consequently heavy;

(iii) The necessity of serving meals at such times of the day or night as the hours of working in the factory demanded, although at certain periods profitable working might be out of the question;

(iv) The performance of unremunerative services, e.g., the warming-up of food or the supply of boiling water. A canteen is not merely a restaurant but is also a place of general resort during meal times, and many who use it make no purchase or only a trifling one;

(v) The difficulty of attaining efficient management. Canteens in national factories were working-class restaurants on a large scale, and the number of persons qualified to manage them was extremely limited. The ordinary "coffee-shop" caterer, though he could manage a small business efficiently, was not capable of handling the canteen business, the details of which he could not keep in his head. It was necessary, therefore, to train persons, and preferably women of superior social and educational standing, in the business, and this could not be done in a day."
On 1 March, 1917, Mr. Mann, the Assistant Financial Secretary, summoned a conference to discuss the whole question. At this conference there were present Mr. Mann himself, Sir George Newman, representatives of the Finance Department of the Ministry and representatives of certain of the supply departments responsible for the control of the factories at which canteens were established. The whole question of deficits was discussed rather diffusely, and the suggestion was finally made by Mr. Mann that the Canteens Committee should form a sub-committee "including a few people representing various departments in the Ministry directly concerned for the purpose of focussing discussions, tracing details of management and preparing results of the working of canteens in Government factories." Mr. Mann proposed certain individuals as suitable members of the committee. Sir George Newman replied that he was in entire agreement and warmly welcomed the suggestion.

A proposal for the creation of a committee was accordingly submitted to the Minister on 8 March, 1917. It was not, however, the proposal agreed to by Sir G. Newman at the meeting on 1 March to set up a sub-committee of the Canteens Committee of the Liquor Control Board with co-opted members from the Ministry. The committee, whose constitution was approved by the Minister, was an entirely distinct one, with representatives from six departments of the Ministry and only one representative from the Canteens Committee. The proposal was approved by Dr. Addison on 12 March, and Mr. Mann agreed on the 15th of that month to take the chair and appointed Mr. G. H. Duckworth, of the Ministry Finance Department, as secretary of the committee.

No specific terms of reference were approved by Dr. Addison, but in the invitations to attend the first meeting it was stated that:

"The business of the committee will include:

(a) Consideration of the audit reports on the working of the canteens;

(b) Preparation of a statement for submission to the Treasury with respect to any deficits that may be disclosed;

(c) The recommendation of payments to canteens where, owing to the poisonous nature of the work, the provision of food can be treated as a special medical precaution;

(d) The consideration of suggestions for the prevention of deficits."

In welcoming the suggestion to establish a sub-committee, Sir George Newman was probably glad to have an opportunity of bringing the Canteens Committee in its relation to canteens at national factories into closer touch with the supply departments concerned. A committee on the lines originally suggested by Mr. Mann would probably have served a very useful purpose as it would have enabled the Canteens Committee to bring at once to the notice of the representative...
of the supply department any defects of management revealed by the reports of the committee's inspectors, and reciprocally it would have been practicable for the supply departments to ask for investigation in any case in which they were dissatisfied with the management of a canteen. A great opportunity was thus lost.

It actually happened that two committees existed side by side for almost 12 months (from April, 1917 to March, 1918), each of which was charged with certain responsibilities in relation to canteens at national factories. It was difficult if not impossible to draw any line of demarcation between the functions of the two committees, as each deemed it to be its duty to secure the efficient and economical management of the canteens and friction was unavoidable. The Canteens Committee of the Liquor Control Board pursued its efforts along the lines which had been followed since January, 1916, and undoubtedly succeeded in "keying up" considerably the standard of management. The Canteens Finance Committee for its part pressed for a reduction of the deficits on trading, and thus kept constantly before the supply departments and factory managers their responsibility for the proper conduct of their canteens. Sir George Newman subsequently resigned his membership of the Canteens Finance Committee, whose meetings he had never attended, and thereafter the two committees followed their several ways.

The position was, however, one of unstable equilibrium, and it was inevitable that each party should from time to time endeavour to secure a fresh definition of its powers and responsibilities. The details of the various discussions are of little interest as they affected the actual conduct of the canteens or the mode of their supervision scarcely at all. The Minister in January, 1918, was considering a recommendation from the Assistant Financial Secretary (Sir H. Hambling) that the whole question of the proper authority to supervise canteens should be submitted to a Council Committee, when the sudden shortage of meat and the anticipated difficulty of obtaining food supplies of all kinds convinced the Minister that he must assume direct responsibility for the feeding of munition workers. A new section, called the Feeding of Munition Workers Section or, more usually, the Food Section, was accordingly constituted as part of the Labour Regulation Department. This section absorbed the functions both of the Canteens Committee and of the Canteens Finance Committee.
HISTORY OF THE MINISTRY OF MUNITIONS.

VOLUME V

WAGES AND WELFARE

PART V

PROVISION FOR THE HOUSING OF MUNITION WORKERS

1921
Volume V
WAGES AND WELFARE

PART V
PROVISION FOR THE HOUSING OF MUNITION WORKERS
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CHAPTER I.

INTRODUCTORY.

From its foundation the Ministry of Munitions was confronted by an urgent housing problem. Certain centres in which big armament firms had existed or in which, at any rate, there was highly developed engineering industry, were already seriously congested, and the establishment of national factories, very often in these same districts, was further to intensify the problem.

Since the outbreak of war the construction of working-class houses by private enterprise or the activity of local authorities had, owing to the scarcity and high cost of both labour and material, been practically at a standstill. Such areas, too, as the Clyde, the Tyne, Barrow, Sheffield, Birmingham and Coventry had already experienced a pre-war shortage of housing accommodation. Thus in Coventry there had recently been a marked decrease in the number of houses built every year; in 1911, 1912 and 1913 the numbers were respectively 1,211, 894 and 838; in 1914 there was a slight increase to 977, but it was totally inadequate to meet the normal demand of the town apart from the rapidly increasing and abnormal needs of the Coventry Ordnance Works. In Birmingham also the Birmingham Small Arms Company, which in March, 1915, had under discussion a proposed increase of 4,000 rifles a week on their output, entailing an additional staff of 8,000 persons, named the housing difficulty as a serious hindrance to the scheme. They emphasised the already grave lack of accommodation for their ordinary workpeople and considered it would be well to deal with the provision of houses concurrently with the building and equipping of their new factory.

The principal action taken by the Government previous to June, 1915, had been the initiation of a housing scheme for Woolwich Arsenal, where before the close of 1914 the expansion of staff was so enormous and the difficulties of housing so correspondingly great as to render remedial action a necessary war measure. It was accordingly agreed at a conference held in January, 1915, between representatives of the Local Government Board, the Treasury, the War Office and the Office of Works, that the Office of Works should undertake the task. Land was immediately purchased at a cost of £40,381 15s. 3d., and at the time of the Ministry’s formation the work of constructing 1,298 houses and flats was well under weigh. In addition the War Office had assisted Vickers with loans towards the provision of houses for munition workers at Erith, Crayford and Barrow.

1 This pre-war shortage, partly caused by uncertainty as to how the Finance Act of 1910 would affect building speculation, was universal; in the South Wales Coalfields there was a deficiency of 40 to 50,000 houses (Commission on Industrial Unrest).
2 L.R./11636/6.
3 94/R/30.
4 Report from Committee of Public Accounts (1917), Appendix 5.
5 Ibid., Appendix 12.
The acute shortage of housing accommodation at armament centres had also been dealt with under the Defence of the Realm Act, an amendment, dated 16 March, 1915, making it lawful for the Admiralty or Army Council "to take possession of any unoccupied premises for the purpose of housing workmen employed in the production, storage or transport of war material."

The Ministry was faced with a problem which has here to be considered, and which was at once serious and complicated. Its primary interest in housing was to secure and increase output, the welfare or social side of the question was but the means to an end; and the permanent interests both of the State which provided the house and of the workman who lived in it were subordinated to the needs of the moment. This attitude coloured the policy of the Ministry during the war. From motives of economy and speed, temporary buildings were preferred to permanent ones, save where the latter would obviously be needed after the war. In addition to the more obvious methods of solving the problem of housing the munition worker, the Ministry also sought a way out of the difficulty by the improved organisation of billeting arrangements and by the development of transport facilities.

The whole situation was changed by the Armistice and the permanent houses have formed a preliminary contribution towards a wide scheme for State provision of housing, and as such their administration assumed a new importance; while the temporary buildings, although in urgent demand during the months succeeding the Armistice, necessarily proved less satisfactory as a contribution to the housing question.

For the same reason that the problem of housing during the war was regarded essentially as one of output, its solution was not confined to one department, and, in addition to the Housing Section (attached in the first instance to the Parliamentary and General Branch of the Ministry of Munitions, and from August, 1917, to the Labour Regulation Department), the Explosives Department, the Aircraft Department, and the Woolwich authorities all undertook responsibility for housing schemes. It was not until after the Armistice that housing matters could be centralised in a single department, administering the schemes in accordance with a considered policy.1

The question of rents again was prejudiced during the war. So long as it was necessary to attract workers to a particular locality and keep them there, it was impossible to enforce the Treasury proviso of an economic rental, which would have been almost invariably higher than the prevailing standard.2 It was not until after the Armistice that a firm stand in the matter of rents could be taken.

These and other difficulties, of which not the least arose from lack of material and labour,3 must be taken into account before a true estimate of the Ministry's achievement in providing housing can be obtained.

1 See below, p. 32. 2 See below, pp. 12–16. 3 See below, p. 24.
CHAPTER II.

HOUSING ADMINISTRATION.

I. Departmental Organisation.

The admitted importance, and even urgency, of housing schemes for the employees of Government contractors, and particularly of armament firms, made it very desirable that the Treasury should early lay down definite procedure. Accordingly on 15 June, 1915, they addressed a letter to the Ministry on this subject. They defined the policy hitherto adopted in dealing with housing, which was to limit grants of housing loans to schemes for houses urgently needed in areas where war work was being carried out and where the Department concerned was prepared to testify to the need. Every effort had been made to restrict capital expenditure or to reduce it to a minimum. They therefore laid it down as a fixed principle for the Ministry of Munitions that, wherever possible, only temporary accommodation sufficient for the needs of the moment should be provided, and definite proof that this was impossible would be required before schemes for more permanent construction were adopted. Temporary housing could not be assisted out of the Local Loans Fund, but would be a matter of arrangement between the Ministry and its contractors. When, however, it was conclusively shown that permanent accommodation was essential, the Treasury was prepared to ask the Public Works Loan Board to assist either local authorities, societies or individuals. In practice permanent housing was only sanctioned where it was certain that it would be required to meet the needs of the normal population after the war.¹

The Ministry of Munitions accepted the dictum thus laid down by the Treasury of the paramount importance of providing temporary rather than permanent accommodation, and the policy now initiated was to remain the guiding principle throughout.²

It was obviously necessary early to define the future relationship between the Ministry and the Departments concerned with the administration of the Housing of the Working Classes Acts. Much depended on which was likely to be of most use to the Ministry, the Local Government Board or the Office of Works. It was felt that on the whole, though the Office of Works had a larger technical staff of architects

²L.R.112/140. Some exception was raised to the proposal that permanent houses must represent the permanent needs of the neighbourhood. It was felt that there might be an artificial demand for houses due only to war conditions which it would be impossible to meet by temporary accommodation, even though the post-war need might be doubtful. (Memorandum by Mr. Wolff to Mr. Beveridge, 22 June, 1915.)
more widely distributed throughout the country, the Board had a more
intimate knowledge of housing and the statutes which affected it. In
the first instance, accordingly, the Ministry applied to the Local Gov-
ernment Board—in whom (under the Housing Act of 1914) was vested
authority to deal with the provision of houses for persons employed
by Government Departments—as to what help they would give in
cases which were referred direct to the Ministry, and, more especially,
whether the service of the Board’s Inspectors would be available to
check contracts and to decide whether temporary rather than
permanent accommodation should be provided. A conference was
held on 21 July, 1915, with Mr. Dickenson, head of the Housing
Department of the Local Government Board, who promised all
assistance in his power.

There was, however, the question of overlapping and consequent
disagreement with the Office of Works, to whom the Public Works
Loan Board, where application was made otherwise than by a local
authority, submitted all plans and specifications. It was therefore
considered advisable to approach the Public Works Loan Board as to
whether in case of provisional housing for munition workers they would
accept recommendations from the Ministry based on advice received
from the Local Government Board without reference to the Office of
Works.\(^1\) As a result of conferences the Public Works Loan Board,
while not definitely binding themselves, stated they would be pre-
disposed to accept the Ministry’s recommendation. Procedure was
also discussed with the Committee on New Issues, who agreed that if
the Treasury received a definite statement from the Ministry based
on expert advice from the Local Government Board they would recom-
mend the scheme to the Public Works Loan Board.\(^2\)

The Ministry and the Local Government Board in consultation
together next arrived at a form of procedure which was followed in
cases where permanent accommodation was decided on. In the first
place inquiry was made on the spot through the Local Government
Board’s Inspectors as to the housing situation in the locality concerned.
The Board then made a report based on these investigations, stating
the amount and nature of temporary or permanent accommodation
which should be provided. In the case of permanent housing, where
there was a willing local authority that authority would usually be
asked to undertake the work, the Public Works Loan Board advancing
the money in the ordinary way if desired. Where no arrangement
was made with the local authority, either the firm concerned was asked
to undertake a housing scheme or the Ministry undertook the work
direct through their offices or agents. In either case the Local
Government Board lent the assistance of their professional staff of
architects and engineers. When the work was carried out by a local
authority as agent for the Ministry the Board assisted in the supervision
of contracts and inspection of work.\(^3\)

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\(^1\) L.R./112/141 ; C.R.V./Gen./361.
\(^2\) C.R.V./Gen./361.
\(^3\) Hist. Rec./H/346.2/1.
It was decided from the first to work as far as possible through the Departments concerned with housing instead of setting up an elaborate new organisation, thus not only effecting a saving in public money but also securing continuity of policy.

Early negotiations had been carried on by the General Secretary, but in October, 1915, when schemes were being actively arranged, it became necessary to establish a special section in the Ministry to deal with matter relating to housing. This section remained under the direct control of the Parliamentary and General Branch until 1917 (under Mr. Lascelles), while the work was actually administered by the Assistant General Secretary (Mr. Vernon). As a result of Mr. Churchill’s re-organisation in August, 1917, the housing section was transferred from the Secretariat to the Labour Regulation Department.

On 29 October, 1915, a Director of Housing Construction was appointed to work under the general direction of the Secretary of the Ministry of Munitions. This appointment was intended in the first instance to supply the direct supervision necessary to temporary schemes (with the exception of those undertaken by the Explosives Department). The duties included the preparation of plans for temporary housing and all arrangements relating to tenders and contracts; the terms of all contracts had to be submitted to the Finance Department for approval. When permanent housing under the supervision of the Local Government Board and temporary schemes were undertaken in the same locality the Local Government Board co-operated with the Director of Housing Construction in such matters as the construction of roads and sewers which affected both undertakings. From 1917 onwards the Director of Housing Construction also controlled any permanent housing scheme which was not undertaken by local authorities. To these duties were added as time went on the examination of bills for repair work, the certification of payments and contracts sent in by local architects and the arrangements for the supply of equipment.

In March, 1916, when the first schemes were approaching completion, a Director of Housing Management was appointed.

As will be seen, other branches of the Ministry, the Inland Transport Department and the Central Billeting Board, working both independently and in co-operation with the Housing Section, shared the task of providing housing accommodation for munition workers.

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1 Mr. Henry Holloway, a member of the well-known building firm, held this appointment until the end of 1916, when he was succeeded by Mr. Robertson, architect to the London County Council.
2 L.R. 112/138. The temporary scheme at Sheffield was an exception to the general rule, the Sheffield Corporation acting as agents for the Ministry.
3 L.R. 112/138. Mr. Lloyd George enumerates this as part of the Director’s work in his letter of appointment, 29 October, 1915.
4 L.R. 112/127.
5 This post was held throughout by Sir Robert Carlyle.
6 By 1918, the large number of Departments whose sanction or co-operation was required for a housing scheme was a source of considerable delay. In addition to negotiations with the Treasury, the Local Government Board and local authorities generally, a permanent scheme was dealt with at various stages in its career by the Central Billeting Board, the Works Construction Sub-Committee of the War Priorities Committee and the Munitions Works Board. An attempt was made to simplify the procedure in March, 1918. (L.R. 112 51, 58, 77.)
After the Armistice a Controller of Housing (Mr. Duckworth) was appointed, with the Directors of Housing Construction, Housing Management, and Housing Finance reporting to him and their sections brought together under one roof.\(^1\)

In the course of 1919 various new duties were added to the work of the department. Thus it took over the control of temporary bungalows at Woolwich from the Chief Superintendent of Ordnance Factories, and of a housing scheme at Queen’s Ferry from the Explosives Department.

In October, 1919, the Construction Section was taken over by the Office of Works. The Management and Finance Sections continued some time longer as part of the organisation of the Ministry of Munitions, the official transfer of the Housing Department to the Office of Works bearing date as from 1 July, 1920.

**II. The Finance of Housing Schemes.**

(a) **Methods of Financing Schemes.**

It was at first assumed that expenditure on housing would come under Contracts Finance.\(^2\) The increasing importance of the housing question and the magnitude of the sums involved made it imperative, however, that it should have a separate financial existence, and, as a result of late negotiations between the Treasury and the Ministry, housing schemes have appeared separately among the sub-heads under which the Munitions Vote was accounted for. The Treasury also laid down that separate reference was required in respect of all expenditure on housing of munition workers.\(^3\)

The Ministry undertook the control of all expenditure connected with temporary schemes entered upon either by the Housing Section or the Explosives Department. Tenders and contracts were arranged for by a Ministry official and were in all cases submitted to the Finance Department for approval.\(^4\)

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\(^1\) A Departmental Housing Committee, under the chairmanship of Mr. Duckworth, met weekly from the beginning of 1919 to secure correlation of principle and action on the part of each section. Co-ordination with the Housing Committee of the Local Government Board was insured by the appointment of the Director of Housing Construction as liaison officer with that committee, and with H.M. Office of Works by the appointment of a representative of that Office.

\(^2\) The Treasury letter of 23 June, 1915 (copy in L.R. 112/140), laid down that it was the duty of the contractor to arrange and pay for such accommodation as was necessary (recovering doubtless the net cost in the price of his products), but that, in special cases, financial assistance might have to be given by the Contracts Department to individual contractors. On 2 July, Sir Hubert Llewellyn Smith agreed to discuss the finance of housing with the Treasury on this basis.

\(^3\) Treasury letter of 24 February, 1916 (copy in 15/Munitions/377), and Treasury Minute of 24 January, 1916 (copy in C.R./2979). It was agreed early in 1916 that expenditure on account of temporary quarters for workmen outside Woolwich Arsenal should be taken to the Ministry of Munitions Vote and not to the Ordnance Factory Vote. The expenditure for Housing under the Munitions Vote has been £1,097,018 17s. 3d. in 1915-1916; £2,084,635 9s. 8d. in 1916-1917; £1,163,749 16s. 1d. in 1917-1918, making a total of £4,345,403 13s. ( Appropriation Accounts, 1917-1918 p. 4.)

\(^4\) L.R. 112/138.
The different methods employed by the Ministry for subsidising permanent housing schemes fall under the following heads: (a) grants to local authorities; (b) assistance given to controlled establishments; (c) arrangements for post-war ownership.

Grants to Local Authorities.

On 4 October, 1915, the Ministry forwarded to the Treasury the terms of agreement into which, after consultation with the Local Government Board, they proposed to enter with local authorities undertaking permanent housing schemes. The scheme was to be carried out by the local authority under Part III. of the Housing of the Working Classes Act, 1890, the Public Works Loan Commissioners advancing money in the ordinary way, if so desired. The Ministry was to bear, by way of grants towards the excess cost over pre-war building rates, such proportion, not exceeding 30 per cent., as should be determined by the Local Government Board after negotiation with the local authority. A condition of all grants was that the Government should have the option of tenancy for munition workers during the war.¹

The Treasury, in reply, was inclined to take exception to any assistance of local authorities from public moneys, and laid down the proviso that the discretion of the Local Government Board should be limited to 15 per cent. of the total in assessing the amount of excess cost to be borne by the Ministry.²

Meanwhile, owing to the extreme urgency of the question the Ministry had anticipated Treasury approval and had already entered into arrangements with local authorities from which it was too late to withdraw, committing themselves to 20 per cent. to 25 per cent. of the total cost. The Minister accordingly requested authority covering the arrangement arrived at and asked that the limit for future cases should be raised to 20 per cent. of the total cost. The Treasury gave the covering sanction required on 12 November, but refused to alter their decision to limit excess cost borne by the Ministry to 15 per cent.

As events proved, no further appeal to the Treasury was needed, for the provisional arrangement made proved to include the four schemes which alone were financed in this manner.³

¹ C.R.V./Gen./361.
² Their Lordships pointed out that the local authority had no vested interest in the pre-war price of building, nor was it likely that there would be a rapid fall in building prices after the war, owing to the amount of reconstruction work. Moreover, the workmen for whom the houses were required would be earning high wages and could afford to pay an adequate rent (Treasury letter 14 October, 1915, copy in C.R.V./Gen./361).
³ L.R. 112/49. The lowest grant made by the Ministry was 13½ per cent. to the Lanarkshire County Council. Coventry Corporation claimed 32 per cent. on pre-war cost or 24 per cent. on present estimated cost, but eventually compromised on 20 per cent. including the cost of roads and sewers. The Ministerial grant to Sheffield was also 20 per cent. over the whole scheme. The highest grant, 25 per cent. on buildings and 10 per cent. on roads and sewers, was to Dudley Corporation, who provided the sites both for permanent and temporary schemes, charging a nominal rent for the latter. Negotiations for similar arrangements at Newcastle and Dartford fell through owing to the local authority’s refusal to agree to the terms offered by the Ministry (C.R. 2913; L.R. 1153/13; L.R. 11636/12).
The Ministry retained a financial interest in the due execution of these schemes; all contracts were made by the local authorities under their supervision and were approved by them before being signed. Once the houses were ready for occupation, Ministerial responsibility ceased.1

Assistance given to Controlled Establishments.

Direct grants to local authorities had provided for permanent housing schemes to meet the requirements of a national factory or a works extension paid for by the Ministry. Other financial arrangements were made to meet cases where controlled establishments undertook contracts of the first importance whose fulfilment was not possible without the provision of additional housing. These arrangements included either (i) a loan from the Ministry, (ii) a charge against excess profits, or (iii) a direct grant from the Ministry.

With regard to (i), loans direct by the War Office2 or Ministry of Munitions were usually made at the current rate of interest, varying between 4½ per cent. in 1915 and 5½ per cent. in 1917. Since 1915 the Ministry advanced money only on evidence of an equivalent value of work done.3 A period of 20, 30 or 40 years was allowed over which the loan was repayable.4 The Ministry also allowed that loans should be written down to replacement value, to be decided at some fixed date after the war.

These loans were the subjects of formal agreements between the Ministry and the firms. The agreement concluded with the Austin Motor Company for the loan of £75,000 to provide 251 houses may be quoted as summarising the general policy. The value of the houses was to be determined two years after the war and any depreciation on the original cost was to be written off. The company was to pay 5½ per cent. on the loan during the period preceding valuation. If they elected to pay off the debt during this pre-valuation period the property would be re-conveyed to them at their own expense. After valuation had been made the company was to wipe off the debt in

1 L.R. 112/138.

2 In 1915 the War Office made a loan of £150,000 to Beardmore to construct workmen's houses at Dalmuir, and £75,000 and £50,000 to Vickers for the same purpose at Barrow and Crayford respectively. (D.F.3/P.A.C./22; Hist. Rec./R/346.2/6.)

3 D.F.3/P.A.C./22. The Controller and Auditor General drew attention in 1916 to the fact that two years after the date of the advance to Beardmore only about three-fourths of the loan had been expended and that the contractor had therefore had for a considerable period the use of large sums at a low rate of interest (Report of Controller and Auditor General, 1916-1917). It appeared that in this case under Scottish law, which differed fundamentally from English, the payment of the loan had to be made on the execution of the agreement. The latter provided, however, that if the loan were applied to any other purpose than housing, the balance outstanding should then be charged with interest at 5 per cent. instead of 4½ per cent. A settlement was made with the firm on these lines.

4 The general rule was 40 years; the Aluminium Co., Dolgarrog, had 20 years and Austin's had 30 years.
thirty annual payments, continuing to pay $5{\frac{1}{2}}$ per cent. interest, or they might, if they wished to, pay it all off at once.\footnote{L.R. 11773/7.}

Other firms which received assistance in this manner were the Aluminium Corporation, Dolgarrog, the Aircraft Manufacturing Company, Hendon, the British Cellulose Company at Spondon, Dorman Long and Co., Grahame-White, and Vickers.

The second method of assistance given to controlled establishments was writing off from excess profits. In certain instances private firms, willing to undertake to provide accommodation for their employees, were deterred by the great increase in the cost of building. In the beginning of 1916, to meet such cases, a special arrangement, practically equivalent to a State grant, was initiated in the case of Brotherhood of Peterborough,\footnote{The firm was carrying out a large contract for 6-in. and 8-in. howitzer sights which required the best class of labour (M.W. 50016; C.E. 266/23).} by which a part of the cost of a permanent housing scheme was allowed to be charged against excess profits. The essential characteristics of this form of grant, which was very generally applied to controlled establishments over the next twelve months, was that it involved no direct outlay by the Ministry; the excess profits were intercepted on their way to the Treasury and the remainder of the expense was borne by the firm.

The basis of allowance to the firm was the difference between the present and pre-war cost of providing the accommodation. The total amount of excess cost thus arrived at was not written off to the firm, but a certain proportion, varying according to the particular case and decided after investigations by the Ministry. Occasionally, as in the case of Vickers' scheme for 100 houses at Weybridge, the amount of writing-down allowed on the entire cost was to be reviewed at the end of the period of control but was in no case to exceed 50 per cent.\footnote{C.R.V./Gen./9; Hist. Rec./R/346. 2/1.}

Plans and estimates for schemes financed in this manner were in every case submitted to the Ministry. Certain conditions were also imposed; it was stipulated that rents were to be approved and that the houses should be reserved for munition workers during the period of control.

In two instances direct grants were made unconditionally to firms. In this way Dorman Long and Co. received 25 per cent. of the total cost of their scheme for 300 houses at Redcar as a grant and the remainder on loan at 1 per cent. above the bank rate. A small scheme for 15 houses undertaken by the Appleby Iron Co., Ltd., at Scunthorpe, also received a grant from the Ministry of 20 per cent. of the expenditure.

\textit{Arrangements for Post-war Ownership.}

By the end of 1916 the disadvantages of methods hitherto adopted for financing permanent schemes became apparent. Schemes undertaken by local authorities were delayed by the trouble they experienced
in obtaining labour and the difficulty of fixing the amount of the subsidy. Writing-off from excess profits of private firms was also unsatisfactory: for not only is it a radically unsound principle to intercept revenue before it reaches the Exchequer, but also it is not on general principles desirable that employers (often indeed themselves disinclined to become builders or owners of house property) should be the landlords of their workmen.

The principle of post-war ownership was first adopted in the case of a scheme for 350 houses in Mid-Lanarkshire which it had originally been decided to treat on the basis of a direct grant of a percentage of the cost to the local authority. Prolonged negotiation on these lines carried on from May, 1916, to the close of the year broke down as the local authority demanded a higher percentage (30 to 40 per cent. of the cost) than the Ministry would grant. It was therefore arranged that the work should be carried out in the first instance at the expense of the Ministry, that the firms concerned should make a contribution of £20 per house in return for first claim on the tenancy, and that the local authority should agree to take over the houses three years after the war at their market value as determined by valuation.\(^1\)

The Treasury accepted this principle of post-war ownership,\(^2\) and from 1917 onwards insisted on a definite agreement for the post-war ownership of all permanent houses constructed by the Ministry; though in the case of Barrow-in-Furness, where the terms offered were rejected by the Corporation, the Ministry, with Treasury consent, remained owners of the property.\(^3\) The Local Government Board were also prepared to agree to the proposed arrangement provided that they themselves were consulted.\(^4\) Certain conditions common to all post-war agreements may be summarised as follows:

(1) The Ministry was to build so many houses which the local authority or firm, as the case might be, undertook to buy at a fixed date after the war. (2) The price to be paid was to be determined either by mutual agreement, or failing this, by a valuation by an approved neutral valuer. (3) The management of the property might be handed over by the Ministry during the period of the Ministry's ownership on terms to be agreed upon between the two parties.\(^5\)

When a local authority accepted the post-war ownership of a scheme initiated for the benefit of a special firm, the latter was made,

\(^{1}\) Hist. Rec./R/346. 2/1.

\(^{2}\) L.R. 112/127, 147. The Treasury regarded the proposal as satisfactory only in those cases where the local authority could not be persuaded to build, where controlled establishments would only build on condition that a considerable part of the cost was charged to excess profits, or where the utmost possible use had been made of such expedients as the erection of temporary huts and the requisition of empty property.

\(^{3}\) See below, pp. 48-50.

\(^{4}\) L.R. 112/47. The Local Government Board pointed out, that while continuing to give all assistance in their power, their limited architectural staff would prevent them undertaking the management or supervision of very extensive schemes.

\(^{5}\) L.R. 112/26.
wherever possible, to contribute. Thus with regard to the Shirehampton scheme, the National Smelting Company agreed to pay 25 per cent. of the difference between the cost of erection and the valuation at which the property was taken over after the war. In this case the agreement for post-war ownership was tripartite, the contracting parties being the Minister, the National Smelting Company and the Corporation of Bristol. The terms gave the company the option of purchase two years after peace; if they failed to exercise the option, the corporation was to purchase at market value three years after the termination of war.\(^1\)

One great advantage of post-war ownerships was that the Ministry, by becoming directly responsible for construction, was in a position to ensure that it was carried out as rapidly and continuously as possible. The financial merits, as compared with the system of direct grants, were uncertain, and as time went on it became increasingly difficult to make an agreement which was considered speculative and hazardous by the local authorities, naturally unwilling to bind their successors to such terms. At Coventry, at Barrow and at Irlam, indeed, both the local authority and the firm refused to consider post-war ownership, and in this instance the Treasury had to waive the question and to agree to the Ministry holding the property until a suitable purchaser was found.\(^2\)

The economic rent on 70 per cent. of the expenditure insisted on by the Treasury\(^3\) also complicated the question. It involved in all cases an increase over the rents already prevailing in the district and the local authorities feared that, while the higher rents might be obtained during the war period, they would be unobtainable at a later date, and that any valuation on the basis of "market" value would, in fact, be made on the basis of the high rents available, with a consequent loss to the local authority. It was therefore found necessary in some cases to postpone the period of valuation from three years (the ordinary limit set) to seven, by which time wages might be expected to have reached their normal post-war rate.\(^4\) An alternative basis of valuation also appears in the later schemes; thus both at Lincoln and at Letchworth the agreed basis was "replacement" value after the deduction of a reasonable allowance for depreciation.\(^5\)

The public announcement that some system of State-aided housing would be undertaken after the war added to the difficulties of negotiating post-war ownership; local authorities and other prospective post-war owners had, and could be given, no general guarantee from the Ministry that the State-aided schemes would not undersell the housing schemes which they were asked to take over.\(^6\)

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1. L.R. 112/26. The option was to enable the company to make over the houses to the Avonmouth Garden Suburb.
3. L.R. 112/77; L.H. 84.
4. L.R. 14260.
5. At Irlam and Glengarnock, however, a promise was made that the rents of Ministry houses should be reduced to the level of those put up by the local authority under the Housing Act, as soon as the latter were ready for occupation.
The lengthy negotiations resulting from these uncertain conditions impeded progress. As permanent schemes were only undertaken where houses would be wanted after the war and advantageous disposal was therefore practically certain, the Ministry decided in April, 1918, to ask the Treasury that arrangements for post-war ownership might be dropped. About this date, however, the Treasury created a precedent by waiving post-war ownership in the case of the Barrow scheme, and, as no other cases were then pending, it was decided that future schemes might be decided on their merits.¹

(b) The Question of Rent Determination.

The rents of permanent houses under those early schemes where the local authority was subsidised were fixed by the Ministry, the Local Government Board and the local authority in consultation.² In Coventry, for example, the rents fixed for the Stoke Heath Estate were 9s. 6d., 10s. 6d. and 11s. 6d. for different types of three bedrooomed houses, representing a full economic rent on the outlay.³ What happened here typifies the difficulties besetting the question of an economic rent. Both the Local Labour Advisory Board and the Coventry Ordnance Works pointed out that these rents were out of proportion to those charged in other parts of the city, which ranged from 4s. 6d. to 7s. 6d. for similar accommodation, and that men would sooner be very uncomfortable than pay them. At the instance of the Ministry the Corporation accordingly in the autumn of 1916 reduced the rent by 6d. on each house. These reduced rents left no balance and the Corporation considered that any further change meant that the houses would become an annual charge upon them. In March, 1917, the tenants formed themselves into a Stoke Heath Tenants Defence Association and threatened a ”no rent” strike. They appealed to the Minister to receive a deputation, but as the Minister neither was the owner of the houses nor controlled the rents he did not feel called on to interfere.⁴ The Corporation was eventually obliged to readjust the balance sheet and reduce the rents to 7s. 11d., 8s. 11d. and 9s. 11d. respectively, at which sum they subsequently remained.⁵

The policy of post-war ownership, as seen above, introduced a new element of ministerial ownership in later schemes, and the Treasury stipulated that rents should be fixed at a rate which would provide an economic return on at least 70 per cent. of the cost. This percentage appears to have been adopted to some extent by chance, for when rents were fixed for the Farnborough scheme, the rents paid in the district and the cost of the houses were taken into account, and sanction asked for a rent considered fair under the circumstances. The same method was applied to the Mid-Lanarkshire scheme, under which the policy of post-war ownership was first adopted. The rent thus arrived at happened to provide an economic return on 70 per cent. of the cost.

¹ L.R. 112/77. The Local Government Board also considered at this date that post-war ownership schemes were wrong in principle. (L.R. 112/58.)
² L.R. 11636/70.
³ L.R. 11636/12; Hist. Rec./R/346. 2/23.
⁴ L.R. 11535/70.
⁵ L.R. 112/118.
and this proportion, which was intended to represent a rough estimate of the probable cost of building immediately after the war, was henceforward required by the Treasury as the basis of assessment.\(^1\)

Both the Treasury and the Ministry favoured an economic rent on 70 per cent., or even a higher proportion of the cost, since the high wages obtained made it possible for tenants to pay, and the establishment of the principle of paying rents on the cost of building would undoubtedly make the position of housing easier after the war.\(^2\) Certain difficulties, however, hampered the carrying out of this policy. The chief lay in the fact that the rents of pre-war houses were everywhere considerably lower than could be charged on the 70 per cent. basis. This difficulty increased as time went on, for while the cost of building doubled during the war, the pre-war rents remained standardised under the Increase of Rent Act and accentuated the grievance of those called upon to pay the higher rents of new houses. Labour organisations, too, though they expressed the view, in principle, that an uneconomic rent was unsound, and a subsidised rent meant a subsidised wage (and this especially where a private firm was concerned), tended to abandon the principle when faced with an immediate demand for higher rents.

It was further found that when a housing scheme was undertaken to attract labour from another district, the object of the scheme was likely to be defeated if too high rents were asked.\(^3\) At Glengarnock, for example, the houses which were intended to attract workmen, already living at low rents and in good employment, occupied an isolated position and were unlikely to let in the open market. Rents based on 70 per cent. of cost would have been considerably higher than those obtaining in the neighbourhood, and on the recommendation of the Scottish Local Government Board certain concessions were asked from the Treasury, who refused to sanction any rent not yielding the stipulated economic return. It was only after considerable negotiation and delay that rents were fixed on this basis.\(^4\)

The most serious opposition to the required economic rent came from Scotland, where an increase was involved of from £6 to £10 on the prevailing rents. The rents of the Mid-Lanark houses sanctioned in January, 1917, led to considerable agitation by Local Trades Councils and Tenants' Defence Associations, combined with threats to strike. The Ministry refused to give way, and after prolonged conferences

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1 Hist. Rec./R/346.2/23. The full economic rents for the Farnborough houses would have been 18s. 7d. for a house containing 3 bedrooms, living room, parlour and bathroom, and 13s. 7d. for 3 bedrooms and a living-room. Treasury approval was given to rents of 14s. 6d. and 10sh. 6d. respectively. (Printed) Weekly Report, No. 113, XVI. (13 October, 1917).

2 Hist. Rec./R/346. 2/23.

3 At Queen's Ferry, owing to the high cost of construction and to the importance of allocating and retaining labour on dangerous work, it was not considered possible to charge economic rents and the annual loss on the whole scheme was about £1,000 yearly. (95/2/118.)

with the local organisations and a concession to the local authority
by which post-war ownership by the Ministry was extended from three
to seven years, the scale of rents was accepted in May, 1918.¹

The schemes launched in 1918 showed a growing discrepancy
to the prevailing standard of rents, not only of pre-war houses but of
houses built during the war, and it seemed probable that serious
discontent would be caused by "fixing" such high rents. At Barrow,
economic rents worked out at 15s., 16s., and 17s. per house, while the
price of pre-war accommodation ranged from 5s. to 6s. 6d.² At Lincoln
the estimated rent on 70 per cent. of expenditure was 20s. 6d., while
the prevailing local rent was 6s. 6d. to 8s.³ Coventry furnishes perhaps
the most striking example, for of the two permanent schemes undertaken
in 1917 and 1918 respectively, the rents on a 70 per cent. basis for the
former were 9s. 6d. to 10s. 6d., while for the latter, it was stated in
October, 1918, they would have to be fixed at 16s. 9d.⁴

Experience showed that this question of an economic rent per-
petually threatened labour troubles, and at the instigation of the Labour
Department of the Ministry⁵ a conference was held with Sir Robert
Chalmers on 22 October, 1918. It was then agreed as a general rule
that rents for permanent houses should be fixed to give an economic
return on 70 per cent. of the estimated cost of the building and 100 per
cent. of the cost of land. Application was to be made to the Treasury
in cases when it was thought undesirable to fix rents on this basis.

There was no change of policy after the Armistice, though the
Housing Department recognised that the provision of subsidised houses
was likely to open the way to abuses, and that once the period of immediate
stress had passed, building ought to be treated as an economic proposi-
tion. A rent representing a return on the entire cost could not, however,
be introduced at once, and it was felt that an insurance payment of
30 per cent. on the part of the Ministry was justifiable during the
exceptional conditions following the conclusion of the war. Even
on this basis the rents were unacceptably high, and during the 18
months following the Armistice there were many threatenings
of rent strikes, while strikes actually took place at Coventry and
Woolwich. The determination of rentals also caused delay in carrying

¹ L.R. 6028/12, 112/18; Hist. Rec./R/346. 2/23; (Printed) Weekly Report,
No. 140, IX. (4 May, 1918).
² L.R. 10/77. These rents were strongly opposed by the Corporation, whose
views were awaited on 22 November, 1918.
⁵ L.R. 112/142. The Finance Department regarded the question as one of
expediency. Mr. Duckworth in a Minute to A.F.S., dated 22 August, 1918,
pointed out that there was no question of inability to pay on the part of the
tenant, whose present earnings and economic rents on even 100 per cent. of
the cost of building would probably compare favourably with a similar relation
between pre-war earnings and pre-war rents. The 70 per cent. basis had been
fixed as a fair compromise between a full economic rent under war conditions
and the economic rent that would be required under normal post-war conditions,
and was adopted with the deliberate intention of avoiding fluctuations later and
the possible increase of rentals on old tenants at a time when the earnings of the
working man would certainly be lower and the cost of living possibly as high.
out agreements for post-war ownership, since local authorities and firms alike were inclined to favour a lower rent in order that the purchase price might be correspondingly decreased.

The Ministry as a rule made no stipulations as to the rents fixed by firms carrying out housing schemes, and in most cases pre-war rents prevailing in the district were charged. A notable exception was the case of the Austin Motor Company, who, anxious to have an economic return on the financial outlay, charged and, after some initial difficulty, obtained 18s. 9d. a week each for 50 brick houses and 14s. for bungalows. ¹

The rents of temporary cottages were fixed originally on expenses entailed in capital cost, depreciation, rates and administrative expenses. ² The same difficulties as were experienced with regard to the rents of permanent houses applied to the temporary cottages. The earlier assessments—which averaged 7s. 6d. for a three-bedroomed and 6s. for a two-bedroomed cottage³—were invariably in excess of the prevailing rates. In addition, the type of one-storeyed cottage was at first disliked. At Dudley, for example, where the rents were exceptionally low, ranging from 5s. to 2s. 6d., rents of 7s. 9d. and 6s. 3d. were asked for the Ministry's temporary cottages. This, combined with the initial unpopularity of the one-storeyed wooden bungalow, resulted in a notable failure to let. In June, 1917, there was a change in the management, and this, together with the reduction of the rents to 6s. and 5s., had such good results that, whereas at that date only 43 per cent. of the cottages were let, by May, 1918, 90 per cent. were reported to be occupied. ⁴

As time went on it became increasingly impossible to obtain a rent which provided anything approaching a full economic return on outlay. The rents of semi-permanent cottages, sanctioned for Barrow in October, 1917, were fixed at 9s. 6d. for a bungalow with three bedrooms and 7s. 6d. for one with two bedrooms. The first rent represented an economic return of 52 per cent. on the capital cost and the second of 45 per cent. The Treasury protested against these low rents, but on an assurance from the Ministry that it was impossible to obtain a higher rental for this type of house, they gave their consent to them on 28 March, 1918. ⁵

Allied to the question of an economic rent is that of charges made in the Ministry's hostels. The original intention was that charges should cover all expenditure and provide interest on a sinking fund and capital.

¹ Although the rents were fixed so high the loss to the firm was ultimately heavy, for the cost of erecting the bungalows (which came from America and had to be pieced together by British workmen) in particular far exceeded the estimate. Some of the conditions of the Corporation of Birmingham's bye-laws also involved very heavy expenses.

² A certain number of cottages at Gretna were furnished and, by arrangement with the Treasury, an extra charge representing 17¼ per cent. of the cost of the furniture was added to the rent. (Hist. Rec./H/1122. 7/19.)

³ These rents included rates and water but not light.


⁵ L.R. 10726/7.
Prices were fixed in 1916 before experience had been gained as to running hostels and on the assumption that the buildings would be fully occupied for the life assigned to them. They averaged an inclusive price for the women's hostels of from 13s. to 14s. 6d. a week, though in one case, at Slade's Green, the charges were as low as 11s. 6d.\(^1\) The usual charge for men's lodging was 6d. a night; at the Dudley Hostel board was fixed at 14s. 6d. a week. The weekly charge in Gretna hostels for board and lodging was 18s. for males and 12s. for females.\(^2\)

The charges for clearing hostels averaged about 2s. a day.\(^3\)

Owing to the general increase in prices and the unpopularity of hostels at the outset, these prices did not cover expenses and the charges for hostels opened in 1917 were fixed on a higher scale. The question of revising the prices already existing was fraught with some difficulty. An economic rental would in most cases have exceeded local charges for lodgings and hostel tenants would have been worse off than the majority of their fellow-workers. Although, in principle, the trades unions objected to hostel charges being so low that they did not cover expenses,\(^4\) there was considerable opposition to any suggestions of a rise. However, in July, 1917, the Abbey Wood hostels were raised from 14s. 6d. to 17s. and Slade's Green to 13s. 6d. An economic charge at this date was estimated to be, for women, 15s. 6d. a head per week in a large hostel and 19s. in a small hostel; for men, 17s. in a large hostel and 20s. in a small hostel.\(^5\)

The revision of prices at the Coventry hostels was carried out under specially difficult conditions. Owing to labour unrest it was not until November, 1917, that it was decided to raise the charges to 15s. a week. Very serious labour trouble was then threatened, resulting in important changes in the administrative staff of the Government colonies, so that it was not actually until, February, 1918, that the changes were introduced.

In October, 1918, following on a bonus of 5s. a week awarded to women, it was decided that an inquiry should be made into the charges at women's hostels. It was found that the general cost of board, apart from lodging, was about 13s. 6d. a week in a normal hostel when reasonably full. It was therefore decided to raise all hostels to a standard charge of 17s. 6d., the increase to date from 2 November.\(^6\)

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\(^1\) D.F. 3/P.A.C./22; Memorandum on Housing filed in the Housing Section.

\(^2\) Hist. Rec./H/1122. 7/19.

\(^3\) The inclusive charge at Gloucester was 10s. 6d. a week, which was raised to 14s. 6d. in 1917. (Hist. Rec./R/346/131.)

\(^4\) Hist. Rec./R/346/118; D.F. 3/P.A.C./22. The Secretary of the Coventry Branch of the National Federation of Women Workers reported that some agitators went so far as to say that a hostel run by a private firm resembled a compound for black labour.

\(^5\) Hist. Rec./R/346/118. These figures were composed in every case of a maintenance charge (including salaries, rents, rates, etc.) of 5s. per head, the remaining figure covering the cost of catering.

\(^6\) (Printed) Weekly Report, No. 163, IX. (12/10/18). Lodging charges were raised to 4s. a week at the same time.
III. The Management of Housing Schemes.

(a) Type of Accommodation Provided.

The type of permanent accommodation provided was much the same in all cases, that is to say the ordinary type of working-class dwelling, a two-storey brick cottage containing two or three bedrooms, a kitchen and a living room. A bath was usually provided but not a separate bathroom. In Scotland "flatted" tenement dwellings with somewhat inferior accommodation were often provided.

Temporary housing was supplied either as cottages, colonies or hostels. In two cases—those of the large Explosive Factory at Gretna and the National Projectile Factory at Birtley—the Ministry provided a complete temporary village, each with its own schools, churches, hospital, shops, institutions, etc.¹

Temporary cottages were generally single-storey buildings, some with five rooms (kitchen, scullery and three bedrooms) and some with four. They were equipped with either gas or coal stoves for cooking and heating and were lighted by gas or electricity, whichever was cheaper. They were constructed of wood while it remained comparatively plentiful and cheap, but after the beginning of 1916 concrete slabs, treated with waterproofing compounds, and timber framing were used to form the walls.² The estimated life of the wooden houses was 15 years and of the concrete from 15 to 20 years, but their life could be extended almost indefinitely if properly repaired and maintained. These temporary cottages could be spaced as closely as 25 to an acre. In 1917 a more solid type of semi-permanent cottage, estimated to last 30 to 40 years and consisting either of one-storey bungalows with two bedrooms or two-storey bungalows with three bedrooms, was introduced at Barrow and Scunthorpe.³

Colonies or hostels were composed of long one-storeyed hutments divided into single and double cubicles and accommodating about 100 to 130 persons,⁴ each block of hutments being provided with lavatories and baths. In addition to the dormitory blocks a colony was provided with an administrative block containing offices and rooms for the Superintendent, and Staff Dispensary and sick room. Recreation rooms and wash-houses, where minor laundry operations could be undertaken, were also provided. All buildings were heated with hot-water pipes and radiators and lighted with electricity or gas. This type of accommodation, which was found to be particularly convenient when a large number of women workers were brought from a distance, necessitated separate buildings for catering purposes with properly equipped kitchens. The Government colony at Holbrook Lane,

¹ See below, pp. 58–78.
² At the beginning of 1917 the Ministry received stringent instructions from the War Cabinet to practice the utmost economy in the use of timber for constructional purposes and to substitute brick wherever possible. (L.R. 112/47.)
³ Hist. Rec./R/346.2/6; L.R. 10726/7.
⁴ The Sheffield "Colony" for men accommodated only 30 workers.
Coventry, was of this type; the dining hall seated as many as 2,800 at one time and the workers could all be served within a quarter of an hour.¹

With regard to clearing hostels, which were established to serve as clearing houses through which newcomers could be passed on to suitable lodgings, it was found in every case that houses already in existence could be adapted for the purpose.

(b) THE MANAGEMENT OF COTTAGE PROPERTY.

At the beginning of 1916, owing to the approaching completion of the various temporary schemes, it became necessary to draw up a scheme of management, and in March, 1916, a Director of Housing Management was appointed. This part of the work was done with the assistance of Messrs. Barlow and Appleton, whose services were lent to the Ministry by the Bournville Trust. These experts advised as to the proper allowances for cost and management, wear and tear, depreciation, bad debts, empties, etc., and undertook a systematic inspection of the Ministry's temporary property.²

The principle was that the direct management of all temporary schemes belonged to the Ministry; in practice the management was occasionally delegated to some approved person or society. The problem differed according to the nature of the scheme, that is whether cottages or hostels and colonies were concerned. Birtley, which embodied every type and scheme stands apart.³ The temporary cottage schemes at Coventry, Dudley and Scotstown were placed in charge of officials appointed by and responsible to the Ministry, who collected the rents and saw to the carrying out of repairs. At Sheffield, where the only other scheme of this type was carried out, the Corporation exercised during the war the general supervision of the cottages on behalf of the Ministry.⁴

The Ministry took no active part in the management of the permanent houses built by local authorities or controlled establishments. Those permanent houses, however, which in 1917 and 1918 were erected at the entire cost of the Department were managed by the Housing Section of the Ministry, which had hitherto undertaken the temporary schemes. Occasionally the management of the property was handed over to the post-war owner during the Ministry's ownership; thus Colville's undertook the factorage of the Glengarnock

¹ Hist. Rec./R/346. 2/6; Report from the Committee of Public Accounts, Appendix XII., etc. The other colony in Coventry, Whitmore Park, was at first served by the canteen carried on under the direction of White & Poppé, but this proved unsatisfactory and control was taken by the Ministry.

² L.R. 112/31, 34; Hist. Rec./R/346. 2/3.

³ An officer of the Ministry was in residence here, but his responsibilities were limited to seeing that the moneys due to the Ministry were properly collected and accounted for and that repairs were duly maintained: the real management rested with the Belgian Government.

⁴ Hist. Rec./R/346. 2/3, etc. The cottages were part of large schemes including men's hostels and colonies, all of which the Corporation undertook to manage.
houses on a payment from the Ministry of 7s. 6d. per house per annum. In the same way during the war the Shirehampton estate was managed by a committee nominated by the Board of Management of the Avonmouth Garden Suburb subject to certain supervisory powers retained by the Ministry.¹

(c) THE MANAGEMENT OF HOSTELS.

The maintenance and management, including furnishing and catering, of hostels and colonies for men and women were until November, 1918, carried out by the Housing Section, acting in conjunction with the Welfare Department.

It was the practice for the Ministry to maintain direct control over women's hostels and colonies.² In June, 1916, those at Woolwich were undertaken by the Welfare Department of the Chief Superintendent of Ordnance Factories in order to avoid difficulties likely to arise if the management of the hostels was completely separate from the management of the Arsenal.³ A colony was placed under the management of a Lady Superintendent appointed by the Ministry and assisted by a staff of matrons and maids. A separate matron was appointed for every hostel. The standard ratio of the staff to the number of residents was one matron and three maids to every hundred girls.⁴ A permanent staff, however, could not be added to at a moment’s notice or dismissed unless there was good reason to suppose that a hostel would remain permanently empty, so that in many cases the staff was high in comparison with the number of residents.⁵

In the case of men's hostels the Ministry might delegate direct control. Thus at Sheffield the management was handed over to the Corporation, who received all rents and payments which were paid in to the credit of the Ministry; all accounts against the estate were certified by the Town Clerk or City Treasurer and forwarded to the

¹ L.R. 10724; L.R. 11747/15. In 1918 Miss Octavia Hill’s system of house property management was introduced at Barrow, Dudley, Coventry, Sheffield, and, later, at Shirehampton. The aim was to secure the wise government of the houses by appointing educated women to act as agents to the landlords, and in this way to have full power over the management of the house.

² An exception was made in the case of the women’s hostels for Messrs. Austin at Birmingham which were to be managed by the company on the following terms: (1) The general scheme of management, including numbers, staff, salaries, charges and appointment of Lady Superintendent, was to be submitted for ministerial approval. (2) The hostel was to be open for the inspection of the Welfare Department. (3) The Ministry reserved the right of taking over direct management if necessary. The hostel at Slade’s Green was managed under similar conditions by the Y.W.C.A. (L.R. 15744/3.)

³ Hist. Rec./H/346. 2/5. An agreement was made that rates of charges should be similar. These hostels were handed over to the Y.W.C.A. to manage.

⁴ The inconvenient arrangement (necessary, however, for the maintenance of discipline) of the Colony blocks which in most cases were separated from one another, made it necessary to have a matron in every block to supervise the girls.

⁵ D.F. 3/P.A.C./22. At one time it was in the proportion of one to five at Coventry.
Ministry for payment. Here the plan adopted was to farm out the hostels (accommodating 13 or 28 workers) to housekeepers who paid £2 or £4 a week according to the capacity of the hostel and were allowed to charge each workman 3s. 9d. a week for lodgings and make their own terms for catering. In the same way each colony of 30 workers was let to a co-operative society for £15 a month, the same charge being allowed to be made for lodging. These rents assumed that accommodation was fully occupied, and as this, in Sheffield, proved not to be the case, the agreement had to be modified and the rent paid to the Ministry reduced to 2s. 6d. per week per worker in occupation. Later the whole management was transferred to the Housing Department of the Ministry.

At Dudley a general manager to the whole property was appointed by the Ministry, but hostel keepers were appointed under somewhat similar conditions.¹

Clearing hostels were generally managed by local agents for the Ministry. Thus at Lancaster, where a clearing hostel was established for Vickers' National Projectile Factory, the arrangements were handed over to the Lancaster Advisory Committee on Women's War Employment. The management of the clearing hostel at Gloucester for Quedgley Filling Factory was undertaken by a local committee.²

¹ L.R. 11513/3. The hostel keepers at Dudley paid £4 per week clear of rates to the manager and undertook to give precedence of tenancy to munition workers, keep the place clean, and provide meals to the workmen who paid 3s. 6d. for lodging, 1s. for the key of their lockers and extra for food.

² L.R. 16820; Memo. on Housing filed in Housing Section.
CHAPTER III.

HOUSING SCHEMES CARRIED OUT BY THE MINISTRY.

I. The First Housing Programme (1915–16).

A definite housing programme, especially in relation to the new programme of guns and shells, was the first necessity, and on 4 August, 1915, Mr. West's department was asked for estimates. A list of requirements was accordingly drawn up showing the estimated numbers (including the percentage of married men) wanted in connection with (1) the new gun programme, (2) the new ammunition programme, (3) the new gun assembling factories.

This statement formed the basis of further discussion with the Treasury; there were indications—for example, at Sheffield and Newcastle—that local authorities, if assisted, were prepared to undertake permanent schemes, and the Ministry pointed out that, though the temporary scheme was of course cheaper absolutely, a permanent scheme might prove cheaper from the Treasury point of view. The Treasury remained firmly in favour of temporary accommodation and were prepared rather to face a subsistence allowance to married men on the same basis as that granted to munition volunteers. The percentage of married men to be accommodated was likely to be high—varying, according to the estimate, between 50 and 80 per cent.—and the Ministry was extremely opposed to the Treasury suggestion of subsistence allowances, as likely to be successful neither for employers nor employed.¹

The statement of requirements was next sent to the Local Government Board (both for England and Scotland), whose Local Inspectors were instructed to report fully on the possibilities of accommodation in the various centres.²

¹ L.R. 112/141; C.R.V./Gen./361. Mr. Beveridge minuted on 25 August, "Subsistence allowances are not so attractive a problem that we should desire to extend them; it is also unsatisfactory to have married men separated for a long time from their families where it can be avoided." Sir Hubert Llewellyn Smith considered the suggestion "preposterous." About the same date the Treasury had suggested to the Army Council this method for relieving the ever-increasing housing difficulties at Woolwich. The Army Council, however, rejected it as not practical and substituted a building scheme for temporary houses, at the same time handing over a number of married quarters in barracks hitherto occupied by unmarried soldiers. (M.W. 3697.)

² L.R./112/141; M.W. 5593/2.
The following results as to requirements were obtained from the Board’s investigations¹:

<table>
<thead>
<tr>
<th>Area</th>
<th>Estimated No. of Employees</th>
<th>Estimated No. to be housed</th>
<th>No. of permanent tenements provisionally suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>England------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birtley</td>
<td>4,000</td>
<td>80</td>
<td>3,600</td>
</tr>
<tr>
<td>Coventry</td>
<td>1,350</td>
<td>1,000</td>
<td>1,200</td>
</tr>
<tr>
<td>Dudley</td>
<td>2,000</td>
<td>2,000</td>
<td>3,600</td>
</tr>
<tr>
<td>Erith</td>
<td>1,500</td>
<td>1,500</td>
<td>3,000</td>
</tr>
<tr>
<td>Newcastle</td>
<td>1,700</td>
<td></td>
<td>1,530</td>
</tr>
<tr>
<td>Sheffield</td>
<td>9,950</td>
<td>50</td>
<td>9,000</td>
</tr>
<tr>
<td>Scotland-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glasgow and District</td>
<td>4,000</td>
<td>1,500</td>
<td>600</td>
</tr>
<tr>
<td>Total</td>
<td>24,500</td>
<td>6,130</td>
<td>22,530</td>
</tr>
</tbody>
</table>

According to these returns, in six out of seven districts in which the provision of further housing accommodation was essential, a certain amount of permanent housing was suggested. In the seventh case, that of Birtley, a National Projectile Factory to be run entirely by Belgian labour was to be established and plans for a temporary village were already being prepared by the Office of Works in consultation with the Belgian managers of the factory.²

General Treasury sanction was given to this estimate of requirements on 14 October.³ With regard to permanent housing their Lordships recognised “as a practical problem it will be necessary in some cases to embark on permanent housing schemes, and the number of permanent tenants contemplated (2,600) does not on present information appear to them excessive or beyond the powers of the Public Works Loan Board to finance in the ensuing year.”⁴

¹ Hist. Rec./H/346. 2/1, Appendix B. The accommodation at Manchester (Armstrong Whitworth), Nottingham (Cammell Laird & Co.), Long Eaton and Liverpool was reported to be sufficient for the demands likely to be made on it; it was also probable that facilities already existing at Barrow, Lancaster and Houston would prove adequate. About the same date returns as to the additional number of munition workers likely to be employed in districts in which there were no national factories at the moment were compiled by Divisional Officers of Labour Exchanges. According to these returns, of a total of 56,500 (37,000 men and 19,500 women) more or less satisfactory accommodation for 36,000 workers was reported to be available. The most urgent needs from the Ministry point of view were likely to be at Derby (Rolls-Royce and the National Shell Factory), Selly Oak (Austin Motor Company), Gloucester (National Filling Factory), Woolston (J. J. Thornycroft), Acton (Hayes Filling Factory) and Harlesden (Park Royal Filling Factory); less pressing needs were those at Huddersfield, where a National Shell Factory was under consideration, and at Norwich (L.R. 112/137.)

² The Office of Works subsequently withdrew and the work was carried out by the Director of Housing Construction of the Ministry. For a complete account of Birtley see below, Chap. VII.

³ Treasury approval had to be sought on each scheme separately.

⁴ C.R.V./Gen./361; L.R. 112/49. For arrangements now made as to grants to local authorities see above, p. 7.
At the date of the Treasury sanction negotiations had already reached an advanced stage with local authorities in all the districts concerned. At Coventry without further delay the Corporation undertook a subsidised scheme for 600 permanent houses, with the stipulation that they should be primarily for the use of the Coventry Ordnance Works.1

At Sheffield a permanent scheme had to be abandoned because of failure to reach agreement as to terms. The question was resumed in the beginning of 1916 and arrangements then made by which the Corporation undertook to build 261 permanent houses, aided by a grant, and also to supervise a very large temporary scheme of cottages and hostels initiated by the Ministry.2

The Corporation of Newcastle already had a scheme for 688 permanent houses under consideration and the Ministry offered a grant of £45 per house on condition that the houses were ready for occupation by 31 March, 1916. Partly owing to their inability to keep to this time-table and partly to the increase in the cost of labour and materials the Corporation abandoned their plans and the Ministry was obliged to fall back on a scheme of temporary cottages. This change of plan caused considerable delay, and it was not until 25 February, 1916, that Treasury sanction was received for the full number of 600 cottages.3

In the Dartford and Erith districts negotiations with the local authorities also failed. Here the Minister freely exercised his statutory power to take possession of unoccupied premises, commandeering schools and other public buildings to such purpose that from 4,000 to 5,000 persons were housed without additional construction. The immediate necessities of Vickers were thus met, while three hostels were planned at Slade’s Green to meet the requirements of the Thames Ammunition Company.

The needs of Woolwich Arsenal and of the Explosives Department had not for special reasons appeared in the Ministry’s estimate of 4 October.

At Woolwich, as has been mentioned above, a large permanent scheme had already been carried out by the Office of Works, but the continued extension of the Arsenal, where the numbers employed rose from 10,866 in August, 1914, to over 44,000 in October, and where a further increase of 20,000 was expected for factories in course of erection, made it necessary to consider further housing accommodation. Sites were arranged for at Plumstead, Eltham, Greenwich and Abbey Wood and plans drawn up for the provision of 1,500 units of married quarters, 5 hostels for boys, 10 for women and one for men, each to contain 100 workers. Treasury sanction was obtained for this enterprise on 12 December, 1915, at a cost not to exceed £345,000 for the married quarters and £41,275 for the hostels.4

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1 For Coventry see below, pp. 50–54.  
2 M.W. 50675/16.  
3 HIST. Rec./R/346. 2/12.  
4 M.W. 39697, 39697/3 ; C.R. 2913.
The Explosives Department always carried out their housing schemes independently of other departments of the Ministry. Early in July, 1915, when their new factories—which from their nature were in isolated districts—were still under construction, the question of housing the workers was discussed. A housing branch was then set up to work in co-operation with the Local Government Board, who lent the services of their chief Town Planning Inspector to the Explosives Department.1 The most important of their schemes was undertaken in 1915 and was for the erection of a complete village at Gretna, comprised partly of temporary and partly of permanent buildings for upwards of 10,000 workers.2

No additional houses were provided at Queens Ferry while the explosives factory was merely under construction, although some four to five thousand builders' workmen had to travel daily long distances by train. The number of operatives for the factory was estimated at half this number, but it was essential that certain skilled workers, foremen, etc., should live near at hand in case of emergency. After an unsuccessful attempt to arrange a scheme with the Rural District Council, the department therefore proceeded to erect its own township at Mancot. The original plan, laid down in January, 1916, was for three hostels (two for men and one for women), a hospital, and sixteen cottages for foremen. Considerable additions were made later and the township eventually had a population of 800 persons.3

It was not till about the beginning of March that all the principal schemes were established, so that the summer of 1916 found most of them seriously in arrears. There had been a very bad spring, with continuous rain and snow, which had caused a general delay of several weeks. But the main hindrances to progress, which were to become more and more accentuated as time went on, were already active. The chief was the difficulty of obtaining labour. The type of workmen, available as not liable to military service, was necessarily inferior through age, physical defect or inexperience, and it was difficult to get exemption for a better type of man. The great scarcity of plasterers and plasterers' labourers specially held back the work.4 Shortage of material was not at this stage acute, but haulage was a difficulty, while the railway companies showed increasing inability to accept and forward plant and materials.5

The permanent schemes showed the worst delay. According to the stipulated time-table the Coventry houses were to be finished by 26 June; at that date none were actually ready and the scheme was

1 74/U/42.
2 For a complete account of Gretna see below, Chap. VIII.
3 95/2/118.
4 In June, 1916, the Local Government Board reported that 246 houses of the Dudley scheme were in progress and only 254 workmen engaged on them. A complaint here was that the rate of pay was so good that the workmen became dilatory and left work on the slightest pretext. (L.R. 11513/4.)
5 L.R., 11513/4; C.R.V./C/15.
not completed until the middle of October. At Sheffield, where the contract time expired on 31 July, there were, on 12 August, 73 completed, 69 nearing completion, 56 at the roofing stage, 58 begun and 5 not begun. The Dudley permanent houses were not finished until the beginning of 1917.\footnote{L.R. 112/25; L.R. 11513/4.}

The temporary housing at Sheffield carried out by the Corporation was five months late. The Woolwich hostels, on the other hand, built under the supervision of the Director of Housing Construction were within a week or two of scheduled time.

The schemes hitherto enumerated had been undertaken for the most part in connection with new factories under construction. Plans had, therefore, to be based upon an estimate of the labour requirements of these factories and the extent to which such requirements could be met by local resources without the importation of fresh labour. Estimates were compiled by the departments concerned but necessarily depended to some extent upon conjecture. To delay action until the need for fresh construction had been demonstrated by experience would have resulted in delaying the operation of the new factories. It was also not possible to determine with certainty the actual output required from a factory and consequently what the labour employed by it would be. Again, hostels were the quickest and cheapest means of meeting the problem when it was most urgent, but it was only by experience that their unpopularity, due to the dislike of the discipline and supervision inherent in hostel life, was discovered.

In the circumstances it was inevitable that some miscalculation should be made in the earliest schemes. The most serious of these was in the case of Sheffield, where a temporary scheme was carried out for 4,627 workers, of whom 937 were to be housed in 473 cottages and 3,690 in hostels and colonies. These numbers were based on the needs of two National Projectile Factories which were to be established in the city, and of the large extensions to many other works engaged on munitions. They were not, indeed, calculated to meet the full estimated requirements, which a letter from Vickers, written in December, 1915, and signed by representatives of Firth, Hadfields, Cammell Laird and John Brown, gave as 8,000 workers to be accommodated by June, 1916. These figures were based on the assumption that the National Projectile Factories in the town would be worked by imported male labour, but, as events turned out, it was found possible to use female labour, a large part of which was available in Sheffield. This did not greatly affect the future of the temporary cottages, which let readily and were furnished and in occupation by the middle of 1916. The effect on the hostel and colony blocks was disastrous: in July, 1916, 117 out of 140 hostels were complete and only five partially occupied while seven out of 28 colonies were complete and occupied. Various expedients were adopted to meet the situation; the hostels and colonies were thrown open to all munition workers and a number of the hostels were converted into cottages, all of which let rapidly. Thirty-two hostels were later moved to Northwich for the use of the
Explosives Department, and others were taken over by the Admiralty and Vickers. By this means the waste was considerably reduced.

There was miscalculation at Dudley, though here, too, action was only taken after strong representations by local firms. The cottages were at first reserved for munition workers, but as such tenants failed were thrown open to ordinary tenants. The rents were high and the houses themselves, one-storeyed bungalows, were particularly unattractive in appearance. A reduction in rents improved the position considerably but the cottages were never popular.

Later schemes benefited by these experiences; it was recognised as a mistake to build at once for the full numbers asked for, and wherever hostels were erected they were put up block by block as required.

II. Schemes undertaken in 1916-17.

The first housing programme had been designed to meet the requirements of places wherever national factories or factories constructed at the expense of the Ministry were established. The housing problem was not limited to such places, but was equally acute where firms were carrying out large contracts involving a huge increase in the number of their employees. The principle of a direct government grant to local authorities in such cases was not approved and other arrangements (which have already been discussed) were made when a permanent scheme was decided on. For though, in theory, the Ministry continued to be in favour of temporary rather than of permanent housing schemes, in practice the preferability of the latter had often to be conceded.

Important permanent housing schemes were undertaken as a result of the extension of the steel programme in 1916-17, more particularly for Scottish firms, but 160 cottages were also put in hand for the Partington Steel Company at Irlam, and Dorman Long and Company were assisted in building 342 cottages for their employees.

Again, the development of aircraft work from 1916 onwards led to the importation of labour into certain districts and a consequent

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1 The cost of pulling down, removing and re-erecting these hostels was £47,830 and the estimated cost of new huts was £43,200, a difference of £4,630 only. A low estimate of £17,920 was originally made for removal on the understanding that the huts were in sections and could be easily moved, which proved not to be the case. Financial sanction was given to this estimate, but the contract entered into was on a cost plus percentage basis which falsified the estimate to the above extent. The removal of the hostel was justified on two grounds, the saving of time and material, the former of vital importance in connection with the ammonium nitrate programme. (D.F. 3/P.A.C./22.)

2 D.F. 3/P.A.C./22; Memo. on Housing filed in Housing Section.

3 At Woolwich the calculations had also been in excess, provision being made for 8,326 workers, whereas in April, 1917, only 3,730 were in occupation. Report from Committee of Public Accounts, 1915-16, p. 13.

4 Report from Committee of Public Accounts, 1918, p. 117.

5 See above, p. 6.

6 See below, pp. 54-57.
demand for housing. At Farnborough, where the Royal Aircraft Factory was established, 250 permanent houses were put up in 1917 at the request of the War Office. These houses were Government property and were put up by the Office of Works. At Hendon, the Grahame-White Company and the Aircraft Manufacturing Company were assisted by the Ministry to undertake schemes for 125 and 250 houses respectively.

The establishment of new spelter works at Avonmouth in 1916–1917 also led to proposals for housing the employees there. The Treasury at first refused to sanction any scheme, but strong pressure was brought to bear on the Ministry both from private quarters and from the Bristol Corporation. Sanction was finally obtained from the Treasury to erect 150 houses, on the Bristol Corporation agreeing to assume post-war ownership and the company concerned, the National Smelting Company, contributing towards the cost of the scheme.1

All temporary schemes continued to be carried out at the expense of the Ministry. Among the more important temporary schemes in 1916 and 1917 were those to supply accommodation for workers at National Filling Factories. No provision had been made for these factories in 1915 as the expectation was that they could be run by local female labour without importation from outside. This expectation was in most cases completely falsified and no class of factory has involved such large movement of labour or raised more serious and difficult housing problems.2 In the spring of 1916 demands for housing began to come in. Large schemes were taken in hand for Coventry. The King’s Norton Metal Company asked for immediate accommodation for 800 workers in the Woolwich neighbourhood. Colonies for about 500 workers were immediately put in hand at Abbey Wood and were ready for occupation by July. Further accommodation for 500 women was taken over from the Arsenal authorities at the beginning of 1917. In some cases it was found possible to deal with imported labour without actually constructing new temporary accommodation. In these cases it was often convenient to establish a clearing hostel to which labour could be sent by Employment Exchanges and thus distributed among available lodgings. Clearing hostels were without exception adapted from houses already existing. One was provided by the Ministry at Gloucester as a centre of distribution for the Quedgley Filling Factory; four, including the Judges Lodgings, were at different times established in Hereford and one in Lancaster.3

Contracts arranged with Messrs. Austin of Birmingham at the beginning of 1917 involved the employment of over 3,000 women. The inspection staff was expected to number about 400 and the Ministry erected hostels (Lickey Hostel) for their reception. A second hostel (Longridge) to accommodate 780 was designed for other workers. In

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1 Cf. also Barrow, Coventry and the Scottish schemes.
3 Hist. Rec./R/1122. 3/38. At Lancaster on the outbreak of war there were about 500 empty houses and lodgings for 9,000 people. Vickers secured these houses on very advantageous terms and registered the lodgings.
addition Nazareth House, taken over by the firm from a Roman Catholic community, was adapted for 450 workers, while the firm also arranged for 50 motor buses, each transporting 29 workers to and from Birmingham.

Mention must also be made of the accommodation for munition workers provided since the beginning of the war by an ever-increasing number of private hostels. These hostels were run by philanthropic or semi-philanthropic concerns as, for example, the Girls' Friendly Society, the Young Women's Christian Association, the Young Men's Christian Association, the Roman Catholic Church, the Church of England or the Church of Scotland. They were subject to inspection by the Welfare Department of the Ministry, and often acted in conjunction with Labour Exchanges. The number of private hostels for munition workers in 1917 was 224 for men, 269 for women, 2 for boys and 8 clearing hostels.¹

The Ministry felt that the claims of the private, and especially of the clearing, hostels for women to support were very strong. Charges had to be made on a low scale, girls came and went quickly, bad debts were inevitable. Any charge above 16s. 6d. was impracticable, and with this sum it was impossible, from 1917 onwards, to cover the costs where less than 300 were concerned. The smaller types of hostel, taking about 40 tenants, were more popular than the large ones and had a better influence, besides being in many areas the only ones available. In June, 1917, Treasury sanction was obtained for the expenditure of £5,000 on those hostels which had been of proved value to women munition workers. This sum was applied as grants in relief of capital expenditure and also as a maintenance rate not exceeding 6d. per day in the case of the clearing hostels. During the year July, 1917–July, 1918, sixteen hostels, of which five were clearing, were relieved. The Treasury grant was renewed for 1918–19.²

III. The Housing of Munition Workers in 1918.

A noticeable feature in the last year of the war was the general character of the demand for houses, and more particularly for those of a permanent nature. Building, as has already been noticed, had been at a discount for some years previous to the war and this had been

¹ M.W.L.R. 2710/2.
² M.W.L.R. 2710/2. The largest grant, £1,349 13s. 9d., was made to the Belmont hostel, Kirkcudbright, run by the Y.W.C.A., for educated women employed as apprentices at the Galloway Engineering Works. The majority of private hostels were for munition workers, though other classes of workers were provided for. In the Nottingham area the women's hostels only included 30:2 per cent. of munition workers while all the men in hostels were on munitions. At the same date ten out of the eighteen women's hostels in the Bristol area were for munition workers. In the Leeds area, of 475 women and 4,558 men living in private hostels, 52 per cent. of the women and 96 per cent. of the men were on munitions. In the Newcastle district a great number of hotels, public halls and schools had been adapted by the Admiralty for men on Admiralty work.
followed by more than four years' warfare, during which ordinary building of working-class houses had been at a standstill. The increasing difficulties of labour and material compelled the Ministry to reduce demands to a minimum and to rule out proposals that did not concern munition workers. Wherever possible existing buildings were adapted as hostels, and hostels were built in such a way as to be capable of conversion at any time into blocks of temporary cottages. No new permanent schemes were originated in 1918, though negotiations begun in the preceding year were now, as at Lincoln, Shirehampton and Scunthorpe, carried to a successful conclusion.

Two causes, however, helped to ameliorate the conditions affecting the housing of munition workers by the Ministry in 1918—the reduction of the munitions programme and the effects of the legislative creation of "Special Areas." One direct result of the reduction in programme was the closing down of the King’s Norton Factory, with the result that their hostels were set free for Vickers’ employees in the Erith and Crayford districts. For the same cause, plans for a hostel for 500 women belonging to the Coventry Ordnance Works were indefinitely postponed. Side by side with the reduction of munitions was the extension of the shipping programme, and the Ministry arranged with the Admiralty that any accommodation set free by displacement of munitions labour in shipping centres should be placed at their disposal. Otherwise each Department remained responsible for providing for its own workers.

Questions affecting both Admiralty and Ministry were most likely to arise in the Clyde district, where at the beginning of 1918 the Admiralty proposed to introduce about 4,000 men. The conditions here were so notably bad that the reduction of programme did not materially ease the housing position, though plans under consideration for a hostel for 400 women at Cardonald Filling Factory were abandoned in consequence.

Turning to the question of "Special Areas," a new regulation, 2 A (2), of the Defence of the Realm Act had been passed in the autumn of 1917 to protect the munition worker from the growing practice among landlords of selling their houses to new tenants in order that the existing tenant might be evicted. The price paid for the house was put sufficiently high to represent in a capitalised form a higher rent than had hitherto been paid, thus enabling the landlord to evade the Increase of Rent Act under which he could not raise the rents on the

1 The Ministry adapted for this purpose houses at Barrow, Bristol, Hereford, Highgate, Loughborough (3), and Newbury in 1918.
2 This was done at Coventry, when the women’s colony was half empty, 6 hostel blocks being converted into 59 cottages at a cost of £60 per cottage. The Queen’s Ferry hostels had been constructed from the first with temporary dormitories and living rooms capable of conversion into semi-detached cottages.
3 See below, p. 48.
existing tenant.\(^1\) Under this regulation, however, the Minister was empowered to declare any area where munition work was being carried on a special area where he considered the ejection of munition workers from their dwelling-houses would impede work. While the order remained in force, no munition worker in a special area could be ejected from his house so long as he paid his rent and observed the other conditions of tenancy, always excepting that relating to the delivery up of possession.

Barrow and Coventry had been scheduled as special areas at the close of 1917, and on 30 January, 1918, Birmingham, where the eviction of munition workers had caused special hardship and discontent, was added to their number.\(^2\) Other districts declared special areas under this regulation were Scunthorpe, Birkenhead, Erith, Dartford and Selby. In April, 1918, the Increase of Rent and Mortgage Interest Amendment Act, by providing that an owner who bought his house after 30 September should not be deemed a landlord for the purpose of the original Act, removed the main cause of complaints and made it unnecessary to schedule further areas.

The Ministry’s housing schemes, equally with other enterprises, were closely affected by the progressive rise of prices. The cost of building labour approximately doubled itself during the war, and added to it was the increased cost of material arising from additional cost of transport, of freightage and of labour in manufacture. As a general consequence it was found that where any interval elapsed between making an estimate for a scheme and inviting tenders, the latter showed an increase over the estimate which had to be revised.

The increasing uncertainty of conditions made it more and more difficult for the Ministry to place contracts by competitive tender. In 1917, the contractors for the Glengarnock houses had stipulated before signing their contracts that any increase of wages over current wages brought about by an award of the Board of Trade should be borne in the proportions of two-thirds by the Ministry and one-third by the contractors.\(^3\) In July, 1918, it was reported that contractors themselves could not obtain quotations from merchants and from haulage firms and were in consequence unwilling to give close estimates. In two cases where competitive tenders were invited, most of the contractors protected themselves by provisions and restrictions which

\(^1\) L.R.H. 40. Occasionally the landlord effected a fictitious sale under an arrangement by which the incoming tenant paid down a sum of money for an option to purchase without any real intention of completing the purchase. The only justification of the landlords was that while tenants were profiting by abnormal conditions and letting lodgings to munition workers, they themselves were prevented from taking any advantage of the enhanced value of their property.

\(^2\) L.R.H. 8599; L.R.H. 40. During September, 1917, thirty-six cases of ejectment affecting 398 tenants were made. In October, 1915, the Birmingham landlords were reported as among the worst offenders in raising rents. (Printed) *Weekly Report*, No. 13, VII. (23/10/15).

\(^3\) (Printed) *Weekly Report*, No. 103, XI. (4/8/17). Any concession on this point had been refused in the Coventry Corporation scheme in 1915. M.W. 54793/16; L.R. 11636/12.
practically made their tenders not binding, while firm offers tended to be so high as to be prohibitive.\(^1\)

An examination of the comparative cost of housing schemes at different periods is instructive. In the earliest contracts under Ministry schemes, made at the close of 1915 or the beginning of 1916, for permanent brick houses of the three-bedroom type, the cost worked out at £300 to £315 each, including roads and sewers.\(^2\) This represented an increase of 20 per cent. on pre-war prices.\(^3\) In May, 1918, the current price for a similar workman's dwelling was approximately £575, the costs differing slightly according to districts and facilities for getting materials and labour.\(^4\) In 1920 the houses nearing completion at Irlam, Barrow, Coventry and Lincoln were estimated to cost over £1,000.

The cost of the earliest hostels and colonies erected in 1916 was from £30 to £35 per worker, including £5 for furnishing and £5 for land, road, sewers, etc. The smaller hostels, holding about 30 workers, cost £5 more.\(^5\) In August, 1917, the cost of building, exclusive of roads and sewers, was £20 for the larger type and £40 for the smaller type of hostel, to which had to be added a sum varying between £17 10s. and £20 for total furnishing equipment. Prices continued to increase and in May, 1918, the cost of temporary hostels was from £50 to £70 per head.\(^6\)

The cumulative result of the difficulties of labour and building was that schemes were badly behindhand; at the time of the Armistice there were in various stages of progress eight schemes for permanent houses at Barrow, Clydebank, Coventry, Glengarnock, Irlam, Lincoln, Mid-Lanark and Shirehampton, and one scheme for semi-permanent houses at Scunthorpe. The number of permanent houses involved was 1,460, and of semi-permanent 36. The houses under erection at Barrow, Coventry and Irlam were to remain the property

\(^1\) (Printed) *Weekly Report*, No. 150, IX. (13/7/18).

\(^2\) C.R. 2913. The cost at Coventry was £312, including £41 for roads and sewers; at Dudley £315, including £33 for roads and sewers, and at Glasgow £300. The cost of the Woolwich permanent scheme was very high owing to urgency of requirements. The scheme included 1,086 cottages and 212 flats and the average costs worked out at approximately £622, including cost of lands, roads, sewers and fences.

\(^3\) This is the basis of the grant to local authorities at this date.

\(^4\) Report of Housing Section to Mr. Churchill, May, 1918. This estimate was for a house containing 10,000 cubic feet, with a 16 foot frontage, 25 ft. depth, two storeys each 8 ft. 6 in. clear, a living room, scullery, bath, lavatory, fuel and food cupboards and three bedrooms.

\(^5\) C.R. 2913. *Report from Committee of Public Accounts*, Appendix XII. The Sheffield hostels were estimated to cost £31, £32, and £33, according to the site.

\(^6\) HIST. REC./R/346/118; Report of Housing Section to Mr. Churchill, May, 1918 (L.R./11636/11). No schemes for temporary cottages were undertaken after 1916, when the cost was £140 for the three bedroom type and £120 for the two-bedroom type. The semi-permanent cottage which supplanted them in 1917 and 1918 cost about £445 for the larger and £380 for the smaller type. (C.R. 2913; L.R. 10726/7.)
of the Ministry, since ownership agreements had not been arranged; the remaining schemes were to be handed over either to local authorities or to firms at dates varying from three to seven years after the termination of the war.

As regarded completed schemes, there were at Barrow 202 semi-permanent houses which were ultimately to go to the Corporation but were in the meantime managed by the Ministry; 250 houses at Coventry, though temporarily managed by Messrs. Siddeley Deasy, were Ministry property, as were 250 houses at Farnborough managed by the Royal Aircraft Factory. In addition to permanent or semi-permanent houses, there were a number of temporary cottages and huts, as well as hostels and colonies.

IV. Housing after the Armistice.

All the uncompleted schemes, with the exception of those at Barrow, Coventry, Irlam and Lincoln, were finished by the spring of 1920. It was early decided that no new constructional work should be undertaken by the Ministry; but towards the end of 1919 a certain amount of work was undertaken in converting hostels under the control of the Housing Department into houses.

Though constructional work decreased after the Armistice, the Ministry's activities in connection with housing management naturally increased as more houses became ready for occupation. In April, 1919, there were 1,502 houses, in addition to nearly 4,000 bungalows, which were, or would be, managed by staff appointed by the Ministry, while 464 houses at Glengarnock and Coventry were managed by firms under Ministry supervision. The rents collected at this date amounted to about £3,000 a week.

During the 18 months following the Armistice the future administration of the Ministry's housing schemes was constantly under discussion. In the spring of 1919 unsuccessful attempts were made to transfer the responsibility either to the Ministry of Health or to the Office of Works. In August the Cabinet decided that the Office of Works should be responsible for construction, and that management should not be undertaken by the State, but should be transferred to local authorities. By the spring of 1920, however, no schemes had been so transferred, and in April the Disposal Board was instructed to arrange for the sale of all house property belonging to the Ministry. Before these instructions could take full effect it was decided to transfer the Housing Department in its entirety to the Office of Works, such transfer to date from 1 July, 1920.¹

¹ A list of the Housing schemes administered by the Ministry when it handed over to the Office of Works is given in Appendix II.
CHAPTER IV.

BILLETING (1917-1918).

I. The Billeting of Civilians Act.

The use of lodgings as a valuable subsidiary means of housing mobile labour had always been exploited. Early in 1915 the North East Coast Armaments Committee, seconded by the Lord Mayor of Newcastle, had appealed to all lodging-house keepers and to private houses near engineering and shipbuilding yards to take in munition workers, resulting in accommodation for 7,000 men. The Glasgow and West of Scotland Armament Output Committee had made a similar appeal.

The demand for houses and lodgings consequent on the influx of munition workers into certain areas led landlords to take advantage by raising rents. Their action caused much adverse parliamentary debate in the autumn of 1915 and Government was asked to consider the advisability of introducing a bill to establish fair rents and security of tenure as an emergency war measure. Some of the abuses instanced were very flagrant. At Erith, tenants had had their rents raised from 9s. 6d. to 10s. 6d. a week in December, 1914, and from 10s. 6d. to 12s. in September, 1915; ejectments were frequently asked for by the landlord but the magistrates and County Court declined to turn out the tenant. In one case where the man could not get an ejectment order he raised rent from 8s. to 12s. so as to force possession. The rents in a block of tenement houses at Glasgow had been raised in August, 1915, £3 19s. 4d. per quarter on a yearly rental of £13 16s. per annum and the tenants only given a few days' notice of the rise. The action of the landlords on the Clydeside was indeed the cause of considerable unrest and nearly 10,000 Glasgow tenants were said to be resisting demands for increased rents. At the same time the rises asked by landlords were nothing when compared with the increases demanded and obtained without difficulty by tenants from their lodgers.

Following on questions raised in the House of Commons the Minister of Munitions initiated inquiries into the raising of rent which had taken place in munitions areas. Reports received from 14 areas, including Birmingham, Liverpool, and Newcastle, did not indicate that, as a whole, the attitude of landlords had been unfair or improper. There were certainly bad instances of rapacity—the landlords of Birmingham were cited as the worst examples—but in several cases

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1 Parliamentary Debates (1915), H. of C., LXXIV. 1566, 1572, 1284; LXXV. 354.
when rents had fallen owing to trade depression before the war, they were now no higher than in previous periods of good trade.\textsuperscript{1} General evidence, however, pointed to the need of reform,\textsuperscript{2} and on 23 December, 1915, royal assent was given to the Act known as the Increase of Rent and Mortgage (War Restriction) Act, 1915, which made it impossible during the war (and for six months after) for landlords either to increase the rent of small dwelling-houses or to increase the rate of interest on or call in securities on such houses.\textsuperscript{3} It should be noted, however, that this Act, while it consulted the interest of the tenants as against the landlords, provided no protection for the lodger against the tenant, who at the time of the passing of the Act was already in many instances demanding lodging rates which were more than double those paid for the whole house.

As time went on the capacity of munitions districts for lodging accommodation became to some extent organised. The various Employment Exchanges and Labour Advisory Committees kept lists of lodgings for imported workpeople, supplemented, where women were concerned, by the Advisory Committee on Women's War Employment. Mayors of various towns issued appeals to local householders and instituted registers of available lodgings.\textsuperscript{4} In many cases the organisation of lodgings was carried out by the extra-mural welfare officers of the Ministry assisted by paid investigators.\textsuperscript{5} Improved transit facilities, whether by rail, omnibus or tram, also made it feasible for workers to lodge some little distance from their work.\textsuperscript{6}

Despite these arrangements it became evident by the spring of 1917 that, while available lodgings were by no means exhausted,\textsuperscript{7} certain abuses needed reform which could only be carried out effectively by statutory authority. The abuses were, broadly speaking, the prevalence of overcrowding, together with the unconscionably high lodging rates which were demanded from imported workers.

Contributory reasons impelling the Ministry to take decisive action were the increasing difficulty in getting material and labour, so that any additional proposal for extra building or housing

\textsuperscript{1} (Printed) \textit{Weekly Report}, No. 13, VII. (23/10/15).

\textsuperscript{2} A further advance in rents at Glasgow led to strikes on 17 November, 1915, in protest among the employees of the Coventry Ordnance Works and Messrs. Fairfields. (Printed) \textit{Weekly Report}, Nos. 17, 18, VIII. (20 and 27/10/15).

\textsuperscript{3} Acts of Parliament, 5 & 6 Geo. V. Ch. 97. The houses so protected were of rentals not exceeding £35 in the London Area, £30 in Scotland, and £26 elsewhere.

\textsuperscript{4} Municipal action was taken at Newcastle, Birmingham, Morecambe, Lincoln and Chelmsford.


\textsuperscript{6} See below, Chap. V.

\textsuperscript{7} At Lincoln the local house agent estimated that lodgings could be found for 1,500 workers.
construction was scrutinised "with almost microscopic care." The position at the moment, moreover, arising out of the shipping situation, was that the Ministry was working on a great scheme to increase the output of iron ore, which would involve the transference of thousands of workers to districts where housing accommodation was poor.

On 29 March, 1917, the Billeting of Civilians Bill was introduced and read to the House of Commons on behalf of the Ministry of Munitions; on 23 April the second reading was followed by a long discussion; on 4 May amendments were discussed in Committee; on 7 May it was read for the third time and on 24 May received the royal assent.\(^1\) The Bill aroused considerable opposition in its passage through the House, mainly on the score of the compulsion which, it was argued, was implied in its provisions. The title of the Act was perhaps misleading as conveying at first sight the impression that compulsion must necessarily be used, whereas the legislation was on lines entirely different from those laid down by the Army Act for the billeting of soldiers.

The main provisions of the Act may be thus summarised:

1. The Board constituted under the Act had power to billet persons engaged on any work of national importance, but the rights of the householder were protected in that billets were allocated in the first instance only to such persons as were willing to provide them. In certain cases total exemption was granted.\(^2\)

2. Provision was made to secure satisfactory discipline in the case of civilian workers not subjected to military or other control whereby any billeted person guilty of violence, drunkenness or indecency could be removed by the occupier as a trespasser, arrested without a warrant, and be subject before a Court of Summary Jurisdiction to a fine not exceeding £20.

3. Provision was made for board and attendance, for seeing that the accommodation provided was adequate and rates charged reasonable, both as against householder and lodger.

Other clauses guaranteed the householder against loss by ensuring a week's notice from the worker, by providing payment in case of damage, other than fair wear and tear, and compensation for the introduction of any infectious diseases. Penalties were also prescribed for householders attempting to evade the liabilities of the Act.\(^3\)

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\(^1\) Parliamentary Debates (1917), H. of C., XCII. 2127-2182; XCIII. 623, 807, 2579.

\(^2\) These exemptions were (i) where a man was to be billeted, a house containing women only, the house of a man absent on military duty, or the premises of any female religious community; (ii) where a woman was to be billeted, a house containing men only, or the premises of any male religious community; (iii) bank premises; (iv) the accredited residence of any ambassador, minister, consul or agent of any foreign country.

\(^3\) Billeting of Civilians Act, 1917, 7 & 8 Geo. V. Ch. 20.
II. The Constitution and Functions of Local Billeting Committees.

The Minister of Munitions was entirely responsible for this measure, and its administration was entrusted to a Central Billeting Board set up by the Ministry but including also representatives of the principal Government Departments. The Central Billeting Board was established and held its first meeting on 27 June, 1917. The Act provided that the Board should be assisted by local committees, but as these could not be constituted until it had been proved that they were needed, the preliminary investigation was done through the lodging investigators already employed by the Welfare Department. A report was then drawn up on the results of these investigations and a decision taken as to whether the Act should be applied to the district. If the decision were in the affirmative the Board then set in motion the appointed machinery of a local committee, with executive officers, whose constitution and functions were as follows:—

The statutory requirements were that every local committee should include two representatives of the local authority. Apart from this the constitution remained in the hands of the Central Billeting Board. Experience proved that it was not possible to draw up a model constitution applicable to every area, but certain general rules were observed to make it as representative as possible, the principal employers of the workers concerned and the local Trades and Labour Council being asked to sit on the committee. Where women's labour was specially concerned, any women's organisation, and more particularly the National Federation of Women Workers, were asked to send representatives. When possible the landlady class was also represented. Occasionally the manager of the Employment Exchange or the secretary of the Advisory Committee on Women's War Employment attended the meetings *ex officio*, but as a rule officers of Government Departments were not appointed on a committee which was essentially the guardian of local interests. For this same reason the policy of the Central Billeting Board throughout was to allow as much freedom as possible to a local committee with the minimum amount of control from headquarters. The committees were worked on a voluntary basis, the only expenditure being the amount of wages actually lost by labour representatives in attending meetings.

The main function of a local committee was to fix the rates to be paid for board and lodging, basing them upon the market price prevailing in the district for workers of a class similar to those to be billeted.

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1 The original personnel of the Board was as follows:—Chairman, A. H. Marshall, M.P.; Ministry of Labour, Mr. H. B. Butler, Miss Durham, Charles Duncan, M.P.; Admiralty, Mr. A. H. Warne Browne; War Office, Lieut.-Colonel Butler; Board of Agriculture, Lord Goschen; Local Government Board, Mr. A. J. A. Ball; Scottish Office, Mr. Miller Craig; National Service Department, Miss Markham; Ministry of Munitions, Mr. Vernon, Mr. Wolff, Miss Hadow; Secretary, Mr. R. H. Crooke. Under the provisions of the Act two members at least had to be women. (Hist. Rec./R/346. 2/31; L.R. 112/17.)

2 Hist. Rec./R/346.2/31, 43.

The rates decided upon by a committee were submitted for approval to the Board, who in every case accepted them.

A secondary statutory function was the adjudication on claims incurred through defaulters leaving their billets without notice. The anticipation that this would prove an important part of their work was not fulfilled; in many districts no claims at all were made and the total number was comparatively insignificant. 1

The third duty of the local committee was to hear and settle complaints between householders and persons billeted. Contrary again to expectations 2 this side of their work did not in practice amount to much; complaints were of a trifling nature, and were settled by the executive officer without reference to the committee. In no case was a single prosecution for drunkenness, violent behaviour or other disorderly conduct found to be necessary.

The work of assigning applicants to available billets, though laid down in the Act as a function of a local committee, was in practice carried out by the executive officer or some member of the investigation staff. Under his statutory appointment the executive officer was subordinate to the local committee, but in practice, though working in conjunction with the committee, much of his work was independent and he was directly responsible to the Central Billeting Board. 3 In small districts where local knowledge was an asset, the Central Billeting Board appointed a local man as executive officer, but for larger areas such as Barrow and Coventry, where organising ability was required, an officer was appointed from the Ministry. At Hereford and Lancaster, where the labour was mostly female, women officers were appointed.

Working under the executive officer were paid lodging investigators who were appointed locally, and who were as a rule men and women of a superior working-class type. Investigators of this kind had already been employed by the Welfare Section of the Ministry and were taken over by the Central Billeting Board in any district where it was decided to apply the Billeting of Civilians Act. 4 Their duties were to canvass the district, prepare the lodging register and keep it up to date.

III. The Work of the Central Billeting Board.

The method of action adopted by the Board was to hold a local inquiry, conducted as a rule by the Chairman, accompanied by various members of the Board. A careful survey was made of the situation

1 Hist. Rec./H/346. 2/2. The number of claims received were 320, involving payment of £226 14s. 9d., of which £82 5s. 6d. was recovered. In general no claim was entertained in excess of the weekly scale settled by the local committee.
3 L.R. 112/14, 15.
4 L.R. 112/14. The salary paid to investigators (35s. to 40s. for men and 30s. to 40s. for women) compared very unfavourably with the wages earned in other employment, and it was difficult to secure suitable persons to undertake the work.
in each district, by means of personal interviews with employers, representatives of labour organisations, local authorities and any voluntary body which had been dealing with the lodgings question. A report was then drawn up upon which a decision was taken.

It very soon became apparent that the scope of the Board's work must become wider than was originally contemplated and that the examination of the particular circumstances of each district must be from the point of view of housing or hostel accommodation no less than from billeting. It shortly became, indeed, an established policy with the Ministry of Munitions, when a question of war emergency housing arose, to defer consideration until the Board had visited the district and reported on its needs. A local inquiry in a particular area therefore did not necessarily imply that there was a need for billeting.

On the whole the Board encountered very little local opposition in the course of its investigations. Such as occurred was generally caused by an inherent distrust on the part of the workers of the compulsion which was provided for in the Act, but which in no case was it found necessary to enforce. The Cowes Trades and Labour Council threatened to "down tools" if compulsory billeting was resorted to. The workpeople at Vickers', Barrow, resented the Act as "a hypocritical way out of a legitimate demand for working-class houses," and in the same way the Lincoln Trades and Labour Council resented billeting as likely to result in further congestion of working-class accommodation while delaying a housing scheme which was the real solution.\(^1\) The labour organisations also felt that compulsion would be imposed on artisans while the occupants of better-class houses would be allowed to go free. This question, indeed, presented particular difficulties to the Board, for it was found that the scarcity of domestic service, combined with the food shortage, made it in practice almost impossible to call upon the occupiers of better-class houses, who had not been in the habit of accepting lodgers, to provide accommodation for munition workers.\(^2\)

The investigations of the Board disclosed grave evils, both in the matter of overcrowding and excessive charges.

At Lincoln, which was visited in October, 1917, the population had risen from 52,000 to 58,000 during the war, while the normal increase of houses had entirely ceased. Overcrowding was consequently acute (cases were reported of as many as 19 persons living in houses of five rooms), more particularly in the older part of the city, where the conditions were said to be indescribable and had a disastrous effect upon the social and moral welfare of the people. Skilled workmen coming to the town were unable to obtain houses and frequently had to live in a single room with their wives and children, £3 to £5 being offered for the key of a house. Lodging accommodation was exhausted at the time of the Board's visit and Ruston & Company had been

\(^1\) Hist. Rec./R/346.2/32, 33.

\(^2\) Both at Cowes and Yeovil substantial assistance was given by the occupiers of large houses. (Hist. Rec./H/346. 2/2.)
unable to find lodgings for 20 men, newly-imported, who had to sleep on sacks on the messroom floor.

The conditions disclosed on the Tyneside and in the Clyde district were almost equally gloomy. In the former district, where the problem chiefly concerned men, the lodgings were seriously overcrowded. Conditions were such that the municipal authorities refused even to issue an appeal for lodgings and the Board itself felt there was no case for billeting. In the Clyde district a large proportion of the houses were single apartment tenement houses and it was a common occurrence to find two married families in one apartment and two and sometimes three male lodgers. In Coatbridge there was a single house vacant in the Burgh and premiums of 5s were offered in the local press for a key; the local authority was quite unable to exercise its Public Health Act to prevent overcrowding as there was literally no other accommodation.1

At seaside places, where work of national importance was being carried out, while there was no actual shortage of accommodation, a tendency was shown on the part of the landladies to raise the prices or even to get rid of their munition lodgers during their holiday season.2

At Derby an association of landladies, formed by the householders in the immediate vicinity of the Rolls-Royce Works, demanded a minimum of 28s. a week from lodgers, and advertised to this effect in the local papers.3

On the other hand, evidence was found of a certain amount of voluntary overcrowding. Applicants for lodgings refused to go very far from their work. At Sheffield, the east end of the town, where the principal works were situated, was far more congested than the west end. The same thing happened at Barrow and Coventry. The dislike, too, which was almost an instinct, of anything approaching an institution often left the hostels and workmen’s houses empty while overcrowding the lodging houses in their immediate vicinity.4

It emerged very clearly from the various inquiries held by the Central Billeting Board that the problem was becoming more and more directly concerned with housing proper rather than with lodgings. As the war prolonged itself war munition volunteers and other workers who had been transferred to strange districts naturally became anxious to bring their families5 to the new places of employment and the

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1 See also below, Chap. VI.
2 This happened at Bognor, where 25s. a week was asked during the summer months for a single room which in winter cost 10s. a week.
3 The War Munitions Volunteers Association immediately inserted another advertisement that they would only pay 24s.
4 At Port Glasgow, for instance, there was a workman’s home with 100 vacant beds in that part of the town where congestion in private lodgings was at its worst.
5 The Act did not provide for the billeting of the wives and families of workers. Applications were often received by the executive officer for family billets and wherever possible the accommodation was provided though no responsibility was taken (Hist. Rec./H/346. 2/2). White & Poppé, interviewed by the Board in October, 1917, said the housing situation in Coventry was desperate for married people: all their temporary married quarters were full up.
demand for lodgings, so acute in 1915 and 1916, to a great extent transformed itself into a demand for houses. Good wages also were an encouragement to congestion in that those who had been in the habit of taking in lodgers allowed themselves the luxury of doing without one. Combined with this was the abnormal cessation of all house building, and consequently in all the big industrial centres—Barrow, the Tyneside, the Clyde district, Coventry—and also in districts such as Lincoln or Northwich, where the congestion was chiefly due to war conditions, the Billeting Board is found stating that housing schemes rather than billeting were the solution of the problem. Where, however, it was considered possible that the application of the Billeting Act might help either to postpone schemes entailing large public expenditure or to tide over the period before their completion, local committees were set up.

In addition to recommendations as to housing, the Board embodied in their reports to Departments recommendations strictly speaking outside the scope of their work, based on the result of their inquiries, relating to such matters as the extension of hostel or canteen accommodation, the provision of special medical attendance in connection with a filling factory, the facilitating of a Corporation scheme for the extension of a tramway or the improvements of train services.1

The result of the food shortage in 1917 was to make the landlady less willing than ever to take in lodgers.2 The introduction of rationing somewhat reversed the position, as experience quickly showed that, under the coupon system, it was easier to cater for a large number.

The services of the Central Billeting Board were exercised on behalf of the Admiralty and the Ministry of Munitions; by far the greater part of its work was done for the latter Department.3 At the time of its creation it was thought that it might be called upon to act for the Board of Agriculture for billeting women employed on the land, but this never eventuated. In May, 1918, the Board undertook, if occasion arose, to make inquiries for the Controller of Coal Mines as to billets for men transferred to replace colliers released for military service.

The Board conducted 68 inquiries on behalf of the Departments concerned, resulting in the application of the Act to 29 districts where local committees were accordingly set up.4

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1 In certain cases the Central Billeting Board itself took direct action with regard to transport; e.g., at Cowes and Hereford an improved service of trains to and from outlying districts was arranged for by them.

2 In January, 1918, women were reported to be applying for work at the Elswick Works on the grounds that they were giving up keeping lodgers on account of the high price of food.

3 Inquiries for the Admiralty were carried out at Bognor, Chepstow, Yeovil, the Tyne District, Southampton, Newport and Cardiff.

4 These Committees were at Banbury, Barrow-in-Furness, Bognor and Westhampnett, Burntisland, Chelmsford, Coventry, Cowes, Dartford, Derby, Erith, Farnborough, Gainsborough, Halifax, Hereford, Huddersfield, Lancaster, Leatherhead and Epsom, Leominster, Littlehampton, Maidstone, Morecambe, Newport (Isle of Wight), Ross (Herefordshire), Sheffield, Southampton, Troon Ulverston, Weybridge, Yeovil.
CHAPTER V.

THE TRANSPORT OF MUNITION WORKERS.

1. General Arrangements by the Inland Transport Department.

The provision of suitable facilities for the transport of munition workers played an important part in the solution of housing difficulties during the war. The causes which gave it prominence—the exhaustion of local labour, the supply of labour to isolated factories, the congestion of population in isolated districts—have already been indicated. Since early in 1916 the work of ameliorating the abnormal transport conditions was undertaken by a special section of the Inland Transport Department. All types of transport—train, tram, motor-omnibus and boat—came within their purview, and certain general principles of action were established which may be summarised as follows:

(1) When the Ministry expended capital on structural facilities, the transport company concerned was subsidised on the understanding that they should have option to purchase such structures after the war at a valuation to be agreed upon.

(2) Local highway authorities were only given financial assistance where it was proved that extraordinary munitions traffic was likely to injure public roads beyond the normal capacity of the ratepayers to make good damages.

(3) To avoid waste of labour, material and vehicles, no individual or company was allowed to institute a new omnibus service unless it was certified by the departments concerned as necessary either for munition workers or other government war service.

Turning to the different methods of transport, arrangements made with railway companies provided some of the most important facilities, and this despite ever-increasing difficulty arising from depletion of railway staff and depreciation of rolling-stock. The methods adopted were various: inducement was offered to the worker living some distance off by the issue of cheap railway tickets to people engaged on munition work; halts were erected at convenient points adjacent to factories where no station existed; alighting platforms built on sidings connecting works with the main lines; small stations were extended to cope with increased passenger traffic. Train services were also altered to suit the hours of work at factories, and in some

1 Hist. Rec./H/2020/2, pp. 158-163.
cases special services were initiated. During the war, 56 halts and other works in this connection were constructed at an approximate cost of £150,000.

A few examples may be given serving to illustrate the importance of the railway extensions. Thus at Lostock Graham Factory, where local labour was exhausted, negotiations with the railway company resulted in special workmen’s trains being run from a large industrial town some 20 miles distant. As the nearest station was two miles from the factory, involving a walk through bad country, an adjacent halt was provided and the distance was also further lessened by arrangements with the Canal Company to provide a footbridge. It is considered that had these facilities not been provided, adequate labour for this important factory could not have been procured.

At Barnbow National Filling Factory, again, some 6\(\frac{1}{2}\) miles from Leeds, a halt and special train services were provided for the workers; here the factory developed so enormously that the halt was twice enlarged, and by the close of the war there were as many as 52 special trains arriving daily and conveying 25,000 workers.

Foleshill Station was also considerably enlarged in order to cope with the numerous trains of munition workers for White & Poppe’s factory.\(^1\)

A factory at Salfords engaged in the manufacture of important parts of machine guns was greatly handicapped by being not only a considerable distance from the nearest source of labour, but also 2\(\frac{1}{2}\) miles from the nearest railway station or other means of transport. A line of railway ran within a few hundred yards of the factory, which was unable to obtain any facilities from the company. Negotiations by the Ministry, however, resulted in the erection of a temporary station and a suitable train service which effectively disposed of the labour difficulty.

Arrangements with the railway also made it possible for 6,500 workmen to be brought from Gloucester, Cheltenham and Stroud to work at the Quedgley Filling Factory; five trains ran each way by day and two by night, the tickets cost the workers 2s. 2d. each, whatever their place of departure, the additional cost for places beyond Gloucester being charged to the factory.\(^2\)

For the same reasons as applied to the railways, it was difficult for tramway companies generally to maintain and develop adequate services for working people. There were special instances, however, where, by the action of the Ministry, tramway and omnibus services were so improved as to enable workers to lodge some little distance from their work. These improvements were not confined merely to more frequent services. Occasionally, as in the case of the Park Royal and Perivale Filling Factories lying adjacent to each other, a

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\(^1\) The level crossing at this station led to the factory and was a source not only of danger, but of great inconvenience and delay to workers, who were often held up for long periods. At the request of the Ministry an overhead footbridge was constructed. See also below, p. 52.

\(^2\) Hist. Rec./R/1122. 3/43.
loopline was laid down for trams, to prevent delay and disorganisation arising at spots where the workers alighted from and boarded cars. At Erith the Ministry succeeded, after much difficulty, in inducing two local authorities and a tramway company to make reasonable arrangements for through-running.\(^1\) Motor omnibus services, too, were in several instances extended, or even instituted as was done at Chilworth, whose position was isolated, and whose number of workers did not justify the running of a special train.

## II. Facilities provided for Woolwich.

The abnormal increase in labour employed by the Royal Arsenal, Woolwich, necessitated special attention to the question of the transport of munition workers. The growth of numbers, combined with the introduction of double shifts, already in 1915 taxed the transport arrangements to the utmost. Towards the end of the year the shifts were revised and several hours of arrival and departure were introduced instead of all workers coming and leaving at the same time. This revision helped to meet immediate necessities, but in the spring of 1916 an urgent demand arose for additional labour at the Arsenal. This labour had to be recruited from new areas, necessitating the strengthening of existing services and the introduction of new ones.

New omnibus services were immediately instituted and, together with those already existing, were strengthened from time to time, so that when the Armistice was signed there were upwards of 300 omnibuses running in the Woolwich area for the conveyance of workers to and from the Arsenal.

The increase of tram services was more difficult to accomplish. There were three lengths of single tramway lines in the centre of the town of Woolwich, which acted as a bottle-neck, and it was evident that further development of the services was impracticable without certain alterations of the track. After some delay, caused by lengthy negotiations with the Woolwich Borough Council, to whom the tramways belonged, and the London County Council, it was arranged to double the tracks. The revised tramway service, providing an increase in cars of 15 per cent. between 5 a.m. and 9 a.m. and 27 per cent. between 5 p.m. and 9 p.m., came into operation in July, 1917.

The provision of additional ferry service between the north and south banks of the Thames at Woolwich was an important asset. Not only did it relieve the congestion on trams and omnibuses, but it is also estimated to have saved several thousand workers at least forty minutes’ journey each way daily. The question was taken up in August, 1916, and in March, 1917, the service was started between a site on the north bank near Gallions railway station to a point directly opposite within the Arsenal itself. The operation of this ferry was undertaken by the Arsenal authorities and, apart from its valuable service in maintaining output, brought in a revenue of about £160 a week.

\(^1\) Mr. McElroy, General Manager of the Manchester Tramways, carried this through on behalf of the Ministry without remuneration.
CHAPTER VI.

SPECIAL ASPECTS OF THE HOUSING PROBLEM.

During the war circumstances combined to give a special character to the housing question in certain areas. Any history of the Ministry's activities in connection with housing would be incomplete without some detail of the steps taken to face the particular form of the housing problem raised in Barrow, Coventry and the Clyde area.1

I. Barrow.2

In August, 1914, Barrow-in-Furness was a town containing some 70,000 inhabitants.3 Its situation, peculiar and isolated, is at the north-west corner of the Lancashire coast. Between it and the Irish Sea on the west is Walney Island, a treeless barrier reef, inhabited only in the centre and connected with the mainland by a bridge. The main industry of the town was already centred round Vickers' works, where for three years previously a steady average of 18,000 workers had been employed. Other large employers of labour were the Barrow Hematite Works and Paper Pulping Works.4 It is incontestable that the numbers employed, the wages paid, the house rates paid and the houses built by Vickers were so greatly in excess of similar engagements by other firms or by the Corporation itself as to make the firm, even under peace conditions, a dominant influence in conditions at Barrow.

The residential part of Barrow (exclusive of the houses built by Vickers) is on the mainland, where the ground rises from west to north-east. The houses are, with few exceptions, working-class houses built of red brick, roofed with slates and, except in the main streets, flush with the pavement. The principal streets are broad, well paved and planted with trees, and there is also a public park. Rented houses are the exception in Barrow, for the most part the working-man owns his own house.

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1 The history of the unique housing experiments at Gretna and Birtley is related elsewhere. (See below, Chaps. VII and VIII.)

2 Based on Memorandum by Mr. G. H. Duckworth (copy in Hist. Rec./R/346/2); L.R.H. 10/7, 27, 77, 99; 10726/7, 47; 4, 300/44; and Weekly Reports of the Labour Section.

3 The population on 31 December, 1913, was 68,523 and on 31 December, 1914, 75,368 (Hist. Rec./R/346. 2/4).

4 The latter closed down during the war owing to the scarcity of timber.
The industrial part of the town lies on the west and south-west edge of the mainland. Vickers' works occupy a site at the south-west corner, known locally as Old Barrow. At this point Walney Bridge gives access to the island on which are the two settlements, Vickerstown North and Vickerstown South, built for Vickers' workpeople. On the outbreak of war these townships included 1,000 houses or about one-fourteenth of the whole town of Barrow. Many of these houses had been built and were managed by an estate company established by Vickers. The houses themselves, erected about 1901, are two-storeyed buildings of varying accommodation, with red tiled roofs and rough cast walls. There are small front gardens but none at the back, though neighbouring allotments are available for growing vegetables. The whole district has the appearance of a strictly kept model village.

Like most other towns of any size, there was already on the outbreak of war a shortage of houses at Barrow, estimated at between 1,000 and 2,000. Vickers, anticipating the influx of munition workers, foresaw the demand for fresh house room and took early steps to meet it. Before the close of 1914 they asked for and obtained from the War Office a loan of £75,000 towards the erection of 253 permanent cottages. These were supplemented by 263 houses built by two estate companies, in which Vickers had a financial interest, from funds borrowed from the Barrow Town Council. All these houses were situated in the Vickers townships and were earmarked for Vickers' employees. They were similar in type to those already in existence, with two rooms on the ground floor and three bedrooms, and were completed before the close of 1915. In addition the firm erected a model lodging house for between 300 and 400 men and a hostel, without cubicles, for 104 girls.

The Ministry became directly concerned in housing at Barrow at the beginning of 1916 when accommodation had to be found there for a number of inspectors and examiners on the staff of the Chief Inspector, Woolwich. An arrangement was then made with Vickers by which the firm undertook to build 90 houses, receiving a grant of £97 (to be written down from excess profits) on each house. In return, the houses were to be at the disposal of the Ministry; they were of a slightly better type than others belonging to the company, built in pairs with a garden both at the back and front, with a large kitchen and living room, a scullery and three bedrooms.

The additional 600 houses thus obtained were by the summer of 1916 inadequate to keep pace with the needs of a population which rose from 75,368 at the close of 1914 to 79,206 in 1915 and by the end of 1916 was to attain to 85,179. The extended scheme for dilution, involving the employment of 2,000 women, introduced among Vickers' employees at this date led to a strike, which emphasised so strongly the necessity for providing accommodation for imported labour, more particularly female, that an order temporarily prohibited the importation of more women into Barrow until proper housing could be provided.¹

¹ Hist. Rec./H/1124/1. This order was withdrawn in November, 1916.
It was obvious that temporary hostels furnished the quickest means of housing these women, and the Ministry now took over certain buildings in Barrow and handed them to Vickers to adapt and manage as women's hostels, the Ministry supplying the necessary furniture. In this way three hostels to hold 160 women were completed by December, 1916. These hostels, which barely touched the main problem, were not at first a great success; the women, who were mostly of a very poor class, disliked their restrictions and preferred to crowd into private lodgings.

In November, 1916, Vickers wrote to the Ministry, "The congestion in housing is now at breaking point," whilst the Barrow Corporation, particularly the labour wing, began an active agitation both in committee and council. Lord Harrowby was asked by the Ministry to investigate conditions at Barrow. His report, dated 23 December, 1916, substantiated this statement as to overcrowding and he recommended that 100 houses and a number of standardised hutsments should be built at once, while more buildings should be converted into hostels.

It seemed certain that any further scheme would have to be initiated by the Ministry, for Vickers, who had already spent £623,330 on housing in Barrow, refused to spend further capital on what was probably a war emergency and largely occasioned by the needs of the new howitzer shop, which was Ministry property. They were prepared, however, to assist any scheme by selling a freehold site within a mile of their works at a special price. The Ministry accordingly undertook a scheme for 250 houses which were eventually to be taken over by the Corporation. Treasury consent was obtained, but matters came to a climax in the summer of 1917, before the scheme could be put into operation, and it was merged in a more extensive one undertaken as the result of popular feeling.

In June, 1917, commissioners had been appointed to inquire into the causes of industrial unrest throughout the country. The position in Barrow at this date speaks for itself. The employees of Vickers now numbered some 35,000, nearly double their pre-war strength. Of these 6,596 men and 2,647 women had been imported into Barrow and over 5,000 employees came by train from Ulverston, Dalton, Millom and other small places within a radius of 20 miles.

A report of conditions at Barrow made to the commissioners on their appointment by one conversant with conditions there puts the housing question in the foreground of industrial grievances.

"For the majority of workers here there is no home life. In some instances the wife is engaged on munition work, but in the majority of cases she is occupied with looking after lodgers. . . . The number of beds occupied by night and day on the Box and Cox principle is very high and runs into thousands. The married man returns home to find his wife clearing up for the lodgers and his own meal not ready—in fact, with children,
lodgers and husband the wife has her hands full—with the result that one or the other is neglected and naturally becomes dissatisfied. Also, I would point out the very inadequate provision for maternity cases. In many homes it is impossible to deal with them, at any rate with decency. Cases have been brought to my notice where nine persons have lived in one room, sixteen in one small house, and a bedroom is occupied by two grown-up sisters and their two brothers 16 and 17 years of age."

The commissioners took evidence at Barrow on 9 July from representatives both of labour and employers. They were given various instances illustrating the conditions indicated above, but these must be regarded in the light of later events as cases of individual rather than typical hardship. Their mere existence, however, combined with such incontrovertible evidence as was furnished from the official figures for the last six years of the Barrow Borough Treasurer, confirmed the necessity for strong remedial action.

While expressing themselves much impressed by the work done by Vickers, the commissioners stated that there was no evidence before them that either the Government or the municipality had, up to now, taken any practical steps to deal with the problem. They strongly recommended that the War Cabinet should take the matter in hand.

The report of the Industrial Unrest Committee brought conditions at Barrow into prominence. Immediately following on it the Central Billeting Board held a local inquiry on behalf of the Ministry. They met with conflicting testimony both as to overcrowding and the amount of lodging accommodation available, Vickers maintaining (on the strength, it was said, of an out-of-date register) that there was still suitable lodging room for 700 women. Lodgings at any distance from the works were, however, very unpopular. This was partly due to the town tramway service, which was infrequent and bad. Mr. G. H. Duckworth has described the scenes which took place on the tram

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1 The Archdeacon of Barrow later stated that, although he was not prepared to say that they might not have occurred, the "horrible examples" mentioned by the Unrest Committee were not within his knowledge and he had not been able to obtain confirmation of them from his clergy. (Hist. Rec./R/346. 2/4.)

2 The figures were as follows:

<table>
<thead>
<tr>
<th>Number of Houses</th>
<th>Population</th>
<th>Numbers per House</th>
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3 Evidence taken in one day was necessarily not exhaustive. As indicated above, action had been taken both by the War Office and the Ministry of Munitions in the matter.

4 Members of the Board who made a personal inspection found serious cases of overcrowding. Families were being housed in railway carriages and caravans, and the share of a bed in a small room was in many cases the best lodging available.
routes at the changings of shifts; men clambered up the outside, standing and sitting everywhere in such a way that the car's back appeared to be broken and the mud guards flapped against the track as the car moved along; it was impossible to collect half the fares or for a tithe of the men and women to get a place.

The Billeting Board considered that the real need was for houses rather than further exploitation of lodgings, but a local committee of the Board was nevertheless set up and local investigators appointed whose work proved of great value.¹

Meanwhile, the Poor Law Guardians, the Women's Labour League and other public bodies in Barrow were petitioning the Minister, and a question was asked in Parliament as to whether immediate action was being taken in view of the Industrial Unrest Report.² On 2 October the War Cabinet decided that a scheme for 1,000 houses was to be proceeded with.³ This decision was announced in the press a few days later, when it was stated that the semi-permanent houses would begin to be ready by Christmas, 1917, and would be finished by March, 1918, when the permanent houses would begin to be available.

In addition, action was taken with regard to the ejectment of munition workers. The Committee of Industrial Unrest had called attention to the abuse, while admitting that the total of ejectment orders made since 1915 was not large, being in fact 42 out of a total of 88 cases entered. The Justices at Barrow, however, regarded the matter as one of extreme urgency, considering that unless some drastic step was taken giving them power to refuse ejectment warrants, strikes and rioting were to be anticipated; the Town Council and Trades Council also sent deputations to the Ministry to the same purpose. Remedy was found in a fresh regulation, 2A (2) of the Defence of the Realm Act, dated 29 September, 1917, which empowered the Minister of Munitions to declare any area where munitions work was being carried on a special area. Barrow and its neighbourhood was constituted a special area on 1 October, which meant that henceforward no munition workers could be ejected from their dwelling-houses so long as they paid their rent and observed the other conditions of tenancy.

The scheme for 1,000 houses was put in hand immediately. The climate of Barrow, cold and bleak, was unsuited to temporary buildings, but in order to save time it was decided that half the houses should be one-storied concrete buildings with hollow walls, of a semi-permanent character guaranteed to last from 30 to 40 years. The first instalment of these "semi-permanent" houses was started at once on a site in the Roose Road. Despite very serious labour scarcity, the first of these houses was finished before the close of 1917 and tenants began to enter in February, 1918.

¹ Hist. Rec./R/346. 2/32. A total of 4,611 persons (4,004 men and 607 women) were in this way provided with accommodation.
² L.R.H. 10/99; Parliamentary Debates (1917), H. of C., XCVII. 1594.
³ This included the scheme for 250 houses already approved by the Treasury, to whom no further application was made.
Difficulties had meanwhile arisen with regard to a site for the permanent houses. Two sites in the neighbourhood of the semi-permanent houses had been chosen by the Ministry and Barrow Town Council respectively. The Town Council site besides being unduly expensive would have involved the destruction of a considerable number of allotments. It was finally decided in March, 1918, that the first batch of 150 houses should be erected on the land common to both suggested sites.

By the spring of 1918, however, the position had considerably altered. Already in November, 1917, doubt had begun to be expressed as to the wisdom or necessity of completing the semi-permanent scheme. A recent bread ticket census had shown that overcrowding was not so serious as at first supposed,¹ while improvements in the train service had opened up the Lake District for residential purposes. The trades unions representatives, moreover, expressed strong objections to houses of the bungalow type and asked for a guarantee of their demolition immediately after the war.² Their objections were shared by the Town Council, who in addition probably felt these houses would compete in rents with other houses in Barrow. It is likely, too, that the working men of Barrow, who as a rule owned their own houses, were beginning to realise that a housing scheme on so large a scale might too drastically relieve them of their lodgers.³

The Barrow Council was interviewed in January, 1918, and the Ministry decided that on the completion of the 202 houses already in hand the remainder of the scheme should be postponed; this decision was extended shortly after to the 500 permanent houses, of which 250 only were taken in hand.

The reasons for this decision were (1) that the actual shortage at Barrow had probably been overstated; (2) the relative need as compared with other districts (e.g., Coventry and Lincoln); (3) the difficulties of obtaining constructional labour.

There was no later development of the housing question in Barrow. The deficiency of labour proved a cause of delay, and a scheme suggested in June, 1918, by the Corporation and Vickers for houses on Walney Island (where Vickers offered a free site) was refused by the War Priorities Committee on the ground that labour should be

¹ The census showed 4½ persons per house as against 6 persons reported from corporation figures.
² The late labour unrest was said to have been much more the unrest of the Union Secretaries than of the men themselves. These Secretaries, who were not themselves manual workers, found that their members were taking less interest in the Union as their wages increased and their spare time was absorbed in earning "over-time." They saw their chance in the prevalent under-housing for an agitation which might lead to higher wages for the lodgers in which the working-man landlords would also benefit. (Hist. Rec./R/346. 2/4.)
³ In December, 1917, house owners near the new sites sent a formal protest to the Ministry against the erection of Government bungalows as likely to depreciate the value of their property both for letting and selling.
concentrated on the scheme already in progress.\(^1\) By September, 1918, the semi-permanent houses were entirely completed, but progress with the permanent scheme was slow. About 8 per cent. of the work was complete at the time of the Armistice, and by May, 1920, 132 houses out of the total 250 were finished. As already stated, both Messrs. Vickers and the Town Council refused the post-war ownership of these houses, and ownership was therefore vested in the Ministry.

II. Coventry.\(^2\)

During the last 20 to 30 years Coventry has entirely altered in character and has become an important centre of the motor-car and bicycle industries. The character and plan of the ancient city has had its influence on war conditions. Industrial expansion had taken place principally in the north of the city, while the railway station is in the south, a mile from the main square and two miles from some of the most important modern works such as the Coventry Ordnance Works and White & Poppé. The narrow main street, which connects north and south, contracts in the centre of the town so as to be capable of a single tramway line only, and the consequent congestion of traffic has, from the point of view of the housing question alone, been a serious drawback, rendering certain quarters geographically unavailable for lodgings.

The nature of the industries peculiar to Coventry, combined with the existence of an armament firm there, made it certain that there would be a considerable access of munition work to the town. A certain amount of requisite labour could be, and was, supplied locally, but by the close of 1917 it was estimated that something like 12,000 men and 20,000 women had been imported into Coventry.

At Coventry, as at Barrow, the housing problem was not created by the war, although undoubtedly aggravated by it. The provision of dwellings had by no means kept pace with the industrial expansion and the shortage of houses was already in 1914 a grievance of some years' standing.

During 1914 and 1915 building did not remain at a standstill: 1,762 houses, mainly working-class in type, were erected by private enterprise. They were inadequate to keep pace with the influx of workers, and the housing problem at Coventry, which was becoming an increasingly important centre of munitions production, was among the earliest considerations of the new Ministry of Munitions. The first scheme inaugurated was to supply the housing requirements likely to arise from the large extensions to the Coventry Ordnance Works in the autumn of 1915. Under this scheme the Corporation, who

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\(^1\) The local master builders maintained that they could get necessary labour if they were given the contract and that the company engaged on the scheme could not obtain labour because they were an outside firm.

\(^2\) Based on the Weekly Reports of the Housing Section; L.R. 11636/6, 12, 70; L.R. 112/23, 42, 79; L.R. 1459/11; C.R.V./Gen./130; C.R.V./C/15, 124.
already owned 400 houses, were subsidised to build a further 600 on a site of 50 acres at Stoke Heath, adjacent to the Coventry Ordnance Works, who were to have first option of tenancy for their employees. These houses each contained three bedrooms and were similar in type to those already built by the Corporation. They began to be available for occupation in the summer of 1916, and were completed by the close of the year.

Permanent houses were built in this instance in consequence of the acknowledged shortage of houses in Coventry, but it was evident that the demand could only hope to be met by the rapid erection of temporary buildings, and this more specially in view of the preponderance of female over male workers imported into the town. The type of work undertaken by Coventry firms, notably in connection with fuses, was peculiarly suited to female labour and led to a special development of hostel schemes in this town. Messrs. White & Poppe, in particular, were in 1915 constructing, as agents for the Ministry, a National Filling Factory and Fuse Factory at which they expected to employ 3,500 women and 550 men. Their works were isolated from the town and only a certain number of these workers could count on outside accommodation. A scheme was immediately taken in hand by the Ministry to put up 18 huts for women, each capable of housing 112 persons, with covered ways and dining-halls in common. At the same time 300 temporary cottages were decided on for the men. Further extensions were undertaken early in 1916, to enable White & Poppe to work both a day and a night shift, which necessitated a considerable expansion of the original scheme, and for this firm alone hostels (of which the greater majority were for women) for 5,900 workers and 466 temporary cottages were provided by the Ministry during 1916. In the summer of the same year hostels were begun at Barras Heath to provide for 500 girls imported by the Coventry Ordnance Works for their fuse-filling factory.

The requirements of another firm, the Siddeley Deasy Company, for the housing of whose employees the Ministry felt responsibility, were met by a scheme, initiated early in 1917, for 210 houses, of which a certain number (156) were completed only so far as to serve in the first instance as hostels.

Wherever possible existing buildings were temporarily adapted as dwellings: thus the Holy Trinity Church School had been taken over for the constructional staff engaged on building extensions, while the Coventry Workhouse was rented by the Hotchkiss Company to accommodate 700 munition workers.¹

The possibilities of lodging accommodation in Coventry were exploited by the Labour Exchange acting in conjunction with the Women’s War Advisory Committee. In March, 1917, paid investigators were appointed by the Ministry to work under the committee, with the result that by July, 1917, 950 women had been placed in lodgings.² Before this date 100 lodgings for a considerable number

¹ L.R. 11636/12. ² L.R. 1459/11.
of munition workers employed at Coventry had been requisitioned in the neighbouring towns and villages within a radius of from 10 to 17 miles.\(^1\)

Despite these not inconsiderable arrangements made by the Ministry, which had indeed kept the yearly number of houses built up to about pre-war standard, the housing conditions at Coventry were the subject of growing complaint during 1917. On 26 August, the Minister asked for special investigations to be made, stating that he had heard "from several sources that the conditions under which munition girls are housed at Coventry are a scandal and a disgrace. The grossest forms of overcrowding and profiteering prevail and I am not disposed to remain indifferent to such a situation."\(^2\)

The investigation carried out at the Minister's request, followed up by a visit from the Central Billeting Board on 31 October, showed the existence of much discomfort and overcrowding, rather perhaps than actual lack of accommodation.\(^3\) Lodging conditions in Coventry were specially difficult, for here the natural desire of the munition worker to be within easy distance of his work was frustrated to a great extent by the plan of the town (as mentioned above) and the position of the larger works on its outskirts. The number of convenient lodgings was limited, resulting in congestion and profiteering in the favoured districts. An instance was given where one room was occupied by four girls each of whom paid 6s. a week. In another case a clerk paid 35s. a week for a bed and sitting-room.\(^4\)

Those employees who lived in outlying towns had to walk a considerable distance from the station to their work, which, apart from the general discomfort to the worker, resulted in bad time-keeping. The Coventry Ordnance Works averaged the loss of time for employees coming from Nuneaton at 2.45 hours per girl per week. In this case the girls had to walk a distance of two miles from Foleshill station to the works, and the company had hitherto objected to the use of the Coventry "avoiding line" for their employees as likely to upset their munitions traffic.\(^5\) A very general opinion was expressed at this time that yet more hostels were needed for the imported women, who already numbered 20,000 and who were continuing to pour into the town.\(^6\) It is true that, owing to the non-establishment of a night shift,

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\(^1\) The Daimler Company had 1,200–1,300 employees coming daily from Nuneaton, Leamington and Warwick; workers also came from Rugby and Atherstone.

\(^2\) L.R. 11636/6. The Office of Works had also called attention to the need or houses at Coventry at this date.

\(^3\) The Central Billeting Board considered that the conditions of overcrowding were not as serious or as numerous as might have been supposed.

\(^4\) Hist. Rec./R/366. 2/32. A report, which was not substantiated, was made by Siddeley Deasy that girls of a superior class complained that their beds were let in the daytime to men.

\(^5\) (Printed) Weekly Report, No. 95, XV (9 June, 1917).

\(^6\) In October, 1917, White & Poppé had a weekly order at the Labour Exchange for 100 women, the Coventry Ordnance Works wanted 300 women at once and Daimler 200 at Christmas. (Hist. Rec./R/346. 2/32.)
the hostels built for White & Poppé had never been more than half full, but the isolated position of the firm rendered this accommodation practically useless for workers in other factories.

The greatest need of all was for married quarters: there were 2,000 war munition volunteers in the town, of whom about 1,500 were married men who could not bring their families to Coventry (and thus incidentally save the Government allowance) because of the impossibility of getting houses. Married men would not come to Coventry, and since the removal of the leaving certificate restrictions the migration had been serious; the Coventry Ordnance Works, for instance, had lost 320 men out of a total of 9,946 employed.¹

These uncomfortable conditions, sufficient in themselves to arouse unrest, were undoubtedly accentuated by the general dreariness of the munition workers’ life at Coventry. Thus until July, 1917, the only recreation open to the 8,000 workers at White & Poppé was a picture palace one mile away. At that date a welfare association was formed which organised a horticultural society, a philharmonic society, cricket, tennis, swimming and billiard clubs, and established a cinema theatre. Other firms recognised the need for rational amusement and the autumn of 1917 saw a rapid development of recreation schemes.²

The Central Billeting Board advised as a result of their investiga-
tions that a housing scheme for 1,500 houses should be begun forthwith, and also that immediate steps should be taken to provide further hostel accommodation for the Coventry Ordnance Works. In view, however, of the fact that some 1,200 houses had already been built in Coventry with Ministry aid it was felt that any allotment on such a scale, even if possible, would be unfair to other congested munition districts, and it was decided to initiate a preliminary scheme for 250 houses.³ The provision of further hostel accommodation for 500 women, which the Coventry Ordnance Works had been urgently demanding since the beginning of the year, was also decided upon and Treasury sanction obtained in November, 1917. This latter scheme was suspended, however, in May, 1918, in view of changes in the labour position.⁴

A serious grievance had been the eviction of munition workers, and this was now abolished by the constitution of Coventry, Foleshill and Stoke as special areas on 3 December, 1917.⁵

¹ Hist. Rec./R/346. 2/32. The case was cited of 35 skilled men brought from Oldham, 33 of whom returned home at once owing to the housing conditions.
² (Printed) Weekly Report, No. 100, XVI. (14 July/17); 112, XVI. (6 October/17); 124, X. (5 January/18).
⁴ Report, May, 1918, to Mr. Churchill (L.R. 11636/11).
⁵ See above, p. 29. Thirteen cases of eviction were pending at the time of the Central Billeting Board’s visit. One firm (White & Poppé) were said to have been prominent in the matter of evictions: they pointed out that their houses had been erected for their own employees and if evictions were stopped all their Foleshill tenants might leave to go to other firms while retaining their houses.
The application of the Billeting Act to Coventry also served to simplify the lodgings problem. An exhaustive canvass of the town was made under the auspices of the Central Billeting Board, and during 1918 billets were found for 2,534 workers of whom 1,620 were women; all these billets were offered voluntarily, and no necessity arose to apply to those houses where accommodation to the extent of between 4,000 and 5,000 billets was known to be available, but was not offered.\(^1\)

Of the 250 permanent houses which were decided on as a result of the Central Billeting Board's recommendations, 226 were at Radford Road and 24 at Gorton Road. At the time of the Armistice, about 15 per cent. of the work was completed. All the houses at Gorton Road were finished by 1 April, 1919, but a year later only 104 of those at Radford Road were ready for occupation. These houses, like those at Barrow, were owned by the Ministry.

Coventry housing schemes were brought into prominence in 1919 by the rent strike in the semi-permanent houses at Holbrook Lane, which lasted for several months. By the advice of the Treasury, 30 typical cases were selected for prosecution, and after protracted legal delays the matter came before the High Court in March, 1920, judgment being given for the Ministry.

### III. Scottish Housing Schemes undertaken by the Ministry.\(^2\)

Housing conditions had been for many years so grave a social evil in Scotland that any action taken by the Ministry to relieve congestion in those districts which became munition centres could only touch the fringe of the main problem.\(^3\) The area principally involved was the Clyde district, including Glasgow and other adjacent towns —where there was a tremendous influx of workers both for the Admiralty and the Ministry— and Mid-Lanarkshire, the centre of a most important munitions district including Messrs. Colville's Steel Works at Motherwell, Beardsmore's at Mossend, Stewart & Lloyd's at Coatbridge and Airdrie. Some idea of the housing situation in this area as aggravated by the war may be gained from figures showing the increase in the number of workers employed by various firms between August, 1914, and the close of 1917. Thus at Beardsmore's Dalmuir works numbers had risen from 5,874 to 10,885 (men and women inclusive); at their Parkhead Works from 8,000 to 27,000; Barclay, Curle & Company's numbers had risen from 4,000 to 7,000; the Fairfield Shipbuilding Company fluctuated between 7,500 and 13,500; Weir & Company's numbers had increased from 2,500 to 5,000, while the establishment of a National Projectile Factory at Babcock & Wilcox had brought an influx of from 7,000 to 8,000 workers. These figures are by no means exhaustive.

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\(^1\) Hist. Rec./H/346.2/2. This number of billets does not include changes of billets.

\(^2\) Based on L.R. 2710/2; L.R. 105/2; Hist. Rec./R/346.2/32; and Weekly Report of the Housing Section.

\(^3\) See Vol. IV., Part II., pp. 43, 44.
A neighbourhood already under-housed was not able to supply the needs of this emergency population, and the want of housing accommodation during the war was undoubtedly a serious cause of unrest as well as a danger to public health. The prevailing type of industrial dwelling was the tenement containing either one apartment or two apartment houses. Two-thirds of the population of Glasgow were stated to live in one-room apartment houses in 1917; many of these single rooms were occupied by two families, and cases even occurred where each family took in lodgers, resulting in conditions better imagined than described.

The erection of hostels offered a solution where rapid temporary accommodation was needed. In Scotland hostels were only run as private concerns, conducted generally by such religious and philanthropic bodies as the Young Men’s Christian Association, the Young Women’s Christian Association, the Roman Catholics, the Girls’ Friendly Society, and the Church of Scotland. A small grant was occasionally made in special cases such as the Belmont Hostel, Kirkcudbright, run by the Young Women’s Christian Association for educated women, or the hostel for boys at Glasgow.1 A few firms also received Government assistance to put up hostels for their employees, though not on a very large scale.2 No hostel scheme, indeed, approaching in magnitude the English schemes was inaugurated; the largest scheme for women, the group of hostels attached to the Georgetown Filling Factory, offered accommodation for 361, while no hostel for men held over 300.3 The Benbow Hostel, erected by Beardmore’s for their male imported workers, had 386 beds which were generally in use, though the restaurant, where the food was both good and cheap, was not popular, as the men thought it savoured of a model lodging house. This objection to the idea of an institution was common to both men and women, and here, as in England, they would often prefer the discomfort of crowded lodgings to the hostels. During the war accommodation was provided in women’s hostels for 916 workers; in September, 1918, 793 women were in residence, of whom 58.4 per cent. were munition workers. About the same date the number of beds provided for men, excluding Admiralty hostels, was 1,172, and the number occupied was 898.

Besides hostels a certain amount of independent building was accomplished by the firms, although after the beginning of 1917 the difficult conditions of the building trade both as regarded labour and materials made it impossible for firms to initiate schemes themselves. Messrs. Beardmore in particular built, during the war, tenement housing accommodation for 937 workers at Dalmuir and also 60 houses in the English cottage style with good gardens for their aviation workers

1 L.R. 2710/2.

2 Accommodation was put up by Napier & Miller, Admiralty Contractors, Old Kilpatrick, for 108 persons and by the British Aluminium Co., Kinlockleven, for 150, on assisted terms.

3 Hist. Rec./R/346/40.
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at Inchinnan.\(^1\) The Glasgow Corporation also received a building licence in December, 1917, to erect at their own expense seven blocks of workmen's dwellings in the borough.

Finally, the Ministry itself undertook financial responsibility in connection with five housing schemes, making a total of 1,060 permanent houses representing in every case the immediate needs of the munition workers. These schemes may be summarised as follows.

(1) In the autumn of 1915 the District Committee of Lanarkshire agreed to build 200 permanent houses at Mossend, with the assistance of a grant from the Ministry of 13.5 per cent. of the total cost. This arrangement was modified later, the Ministry taking over the houses and defraying the net cost while the local authority agreed to purchase at market value one year after the war.\(^2\) These houses were primarily intended for the workers at Messrs. Beardmore's National Projectile Factory, and also were open later to workers at the steel works extensions. The progress of this scheme, which was supervised by the Scottish Local Government Board, was greatly delayed. Three sites had been chosen, but unfortunately in the spring of 1916, after work was well begun, it was found that in one case the steel works extension had encroached and an alternative site had to be found. The chief cause of delay, however, the difficulty experienced in obtaining labour and building materials, was so serious that in December, 1917, there still remained 32 houses uncompleted. In spite of some preliminary dissatisfaction at the rents asked these houses let immediately they were ready.

(2) The largest scheme undertaken by the Ministry was one for 350 houses to supply the needs of three firms, Messrs. Beardmore, Colville and Stewart & Lloyd, all engaged in important extensions in connection with the increased output of steel, and likely to require additional housing by the end of 1916 or the beginning of 1917. These houses were distributed over three different sites, Mossend, Cambuslang and Carmyle. The scheme was first propounded in May, 1916, but it did not take definite form till the autumn. This was partly owing to prolonged discussion with the local authority as to the assistance which should be given by the Ministry, the matter being finally settled on a post-war ownership basis. The firms agreed to make a contribution per house for the right of tenancy. The houses consisted of 120 timber-framed houses, 50 one-storey brick, 88 two-storey flats, and 92 two-storey brick houses. The Scottish Local Government Board was authorised to place contracts in December, 1916, but delays occurred common to all housing schemes, including an acute shortage of timber, and at the Armistice 10 per cent. of the scheme still remained to be completed. The houses were all ready for occupation by the summer of 1919.

(3) Towards the close of November, 1916 it became evident that the extension to Colville's Steel Works at Glengarnock would also

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1 Messrs. Beardmore received a War Office loan of £15,000 for housing purposes in 1915.
necessitate additional housing, as the type of workmen expected would not stop unless decent accommodation was available. Accordingly preliminary arrangements as to site, plans and post-war ownership of 250 houses were begun by the Scottish Local Government Board in January, 1917. Negotiations were prolonged, partly because the local authority refused to accept post-war responsibility, which was finally assumed by the firm. Treasury sanction was not received until 7 July, 1917, and contracts for the work signed about two months later. Want of labour and material combined with bad weather unduly delayed this scheme; 50 per cent. still lacked completion at the time of the Armistice and the scheme was not finished until the beginning of 1920. The factorage of these houses as they became ready for occupation was undertaken by the firm, who received 7s. 6d. for each house per annum from the Ministry, which retained certain supervisory powers.

(4) In 1916-17 the Ministry assented to the firm of John Brown, Clydebank, writing off 12\(\frac{3}{4}\) per cent. of the cost of a scheme for 160 houses. This firm had always paid great attention to the housing of their workers, and these houses, though built in the prevalent tenement type of one or two rooms and a kitchen, were in a good open situation near the works, well built and arranged.

(5) In March, 1917, the question arose of additional houses required by Messrs. Singer in connection with their Combles Fuse Factory, which would be in working order in three months, with a consequent influx of 3,000 workers. The firm secured a suitable site of eight acres and submitted plans for 100 houses. Negotiations fell through in August owing to the Treasury demand for guarantees, which the firm refused to give, as the houses were required for a government factory from which the firm got no profit.\(^1\) The matter was reopened in January, 1918, and a scheme once more submitted to the Treasury, this time with success. The firm now undertook to secure as far as possible tenants from their own staff prepared to accept forewomen from their workshops as lodgers. The local authority of the Burgh of Clydebank agreed to accept post-war ownership. At the Armistice 25 per cent. only of the scheme was completed, but all the houses were finished by the end of 1919.

\(^1\) Reports, of Central Billeting Board, 12 November, 1917 (filed in Hist. Rec./R/346. 2/32).
CHAPTER VII.

THE ELIZABETHVILLE COLONY, BIRTLEY.

I. The Foundation of the Colony.

The establishment of the colony of Elizabethville, Birtley, was part of a well-considered plan evolved by the Ministry of Munitions, acting in conjunction with the Belgian authorities, to organise Belgian labour in this country along the most productive and harmonious lines. By the summer of 1915 the use of Belgian labour for munition work had become an established policy. An agency had been specially commissioned, under the auspices of the Board of Trade, to recruit suitable Belgian labour in Belgium and Holland, and assistance in the work of recruiting was given by organised labour in Belgium itself. In this way between December, 1914, and the following March some 6,000 men and 9,500 women and children were brought over to England, in addition to the 100,000 refugees known to have reached England at the former date, and in addition also to considerable numbers recruited by private firms.

The attitude of the British trade unions towards the Belgians was one of "assistance, goodwill and encouragement," but mutual dissatisfaction often arose owing largely to differences of race and language, culminating in a memorandum sent in July, 1915, by the Belgian Minister and Socialist leader, Monsieur Vandervelde, to the Minister of Munitions. In the course of this memorandum Monsieur Vandervelde suggested as a solution of this problem of mutual misunderstanding that Belgian munition workers should be placed as far as possible in separate factories, or at least in separate workrooms, under the direct orders of brigadiers and foremen of their own nationality.

"Thus established in familiar surroundings," he wrote, "where they are accustomed to work energetically, encouraged moreover by wages much higher than they usually earn, our countrymen would work in conditions both material and moral which would enable them to exert all their capacity and all their good will."

1 Hist. Rec./H/327/1. The industrial refugees in the first months of the war were chiefly of the poorest class from Antwerp and part of the province of Liège: the skilled workmen clung to their homes, supported by their savings and by unemployment grants from Belgian Workers' Federations. As these sources of supply became exhausted and the war prolonged itself, the heads of the Unions urged their members as a patriotic duty to go and work in English munition factories. Thus, little by little, the industrial regions of Liège, Antwerp and Charleroi were drained of their best workers.

2 Hist. Rec./H/327/1.
At this moment the question of manning a Ministry factory in process of erection at Birtley was very much to the fore, and the practical outcome of Monsieur Vandervelde's suggestion was the establishment of the Belgian Colony of Elizabethville at Birtley.

The early history of the colony is closely bound up with that of the factory, which must now be briefly traced. As a result of conferences carried on during the summer of 1915, Messrs. Armstrong, Whitworth & Company had agreed to erect and manage on behalf of the Ministry two factories for the manufacture of cartridge cases and of large shell respectively. By the middle of July adjacent sites had been chosen near Birtley railway station, about six miles from the Elswick Works, and preparations were in full swing. It was at a meeting held at Armament Buildings on 31 August that the suggestion that Birtley factory should be worked by Belgians was adopted by the Ministry. Messrs. Armstrong, who had already successfully managed Belgians in one of their Elswick Works by grouping them, agreed to this course. The estimated requirements at this date were about 4,000, and the Ministry, through the War Office, got into touch with three Belgian engineers who undertook to find sufficient labour to staff Birtley. At the same time these Belgians submitted proposals to act as joint general managers of the technical department, responsible to Messrs. Armstrong, Whitworth & Company, who would continue to act as agents of the Ministry. An agreement on these lines was drawn up, but never came into effect, for the Belgian managers proved quite unable to deal with the labour problem and were superseded in January, 1916, after several months of mismanagement. The Belgian Government was now approached as to whether they would be willing to manage the factory, when it was completed, and provide the necessary labour, the British Government finding the working capital and the raw material. The Belgian Government agreed on condition that they should work in direct conjunction with the British Government, without the intervention of Armstrong, Whitworth & Company. It was eventually arranged that the firm should remain in a consultative capacity, and also that the cartridge case factory should be walled off and worked by British labour under the management of Armstrong, Whitworth & Company, while the shell factory was to be managed by the Belgian Government and manned entirely by Belgian labour provided by them. These negotiations were embodied in an agreement between the Belgian Government and the Ministry, dated 11 February, 1916, upon which the future relations of the Belgian colony both in factory and village were based.

II. The Plan and Construction of Elizabethville.

It had been recognised from the first that neither the village of Birtley nor the town of Newcastle could furnish adequate accommodation for the Belgians, and during the lengthy negotiations above

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1 Hist. Rec./H/1122. 4/3. A scheme for a machine tool factory suggested at the same time fell through.

indicated arrangements for a temporary model village had been proceeding. The Belgian directorate visited Birtley in September, and proposed that a piece of waste land adjoining the factory should be acquired and collapsible wooden huts at once erected as the nucleus of a self-contained village, for the administration of which they would be responsible. The village was to be built entirely by Belgian labour, which would afterwards go into the factory. The Ministry accepted the scheme and the Belgian managers got into touch with the Office of Works. But here as elsewhere their methods produced little practical results. Nothing had been done by the end of October, and this reacted disastrously on the labour question. Building did not begin until November, by which date recruits for the factory were beginning to arrive, particularly from France and Holland, and, in many cases, finding no accommodation available, they refused to fulfil their engagements and sought work elsewhere. Moreover, the idea of utilising the labour recruited for the factory to build the village proved impracticable as the skilled workmen objected strongly to working outside their trade. The Office of Works, which had been prepared, acting in consultation with the Belgian directorate, to carry out the work of construction themselves, withdrew about this date, and the work was carried out by contract under the direct supervision of the Ministry.

The main lines of the original scheme for the model village as prepared by the Office of Works were observed by the Ministry. The residential parts of the village consisted of married workers’ cottages, and of hutments and hostels for single men.

The cottages, of which 325 were supplied with three bedrooms and 342 with two bedrooms, were all one-storey buildings. The larger type were composed either of hollow brick, 2-inch breeze slabs, or wood; the smaller of wood, lath and plaster; the roofing in both cases was felt. Each cottage had a kitchen living-room, combined in the smaller house with a scullery. The cottages were generally built in blocks of six. A small garden in front and a yard at the back completed the plan, which allowed an area of 500 feet by 490 feet to the two types of cottages respectively. In addition to these cottages there were seventeen houses of a superior type, built of brick and cement, and reminiscent in appearance of a Swiss chalet.

Twenty-two wooden hutments known as “barracks,” divided up into dormitories each taking three men, were provided for single workers. Twenty-four hostels and six bungalows were also provided for the same purpose, making accommodation in all for upwards of 1,600 workers. The earlier of these hutments were built of wood and roofed with cement, but the greater number were of 3-inch breeze slabs. Three

1 In the original scheme accommodation was prepared for 6,000 workers, a number never reached. In consequence the 322 two-bedroomed cottages were reduced to 342 and hostels designed for 600 women were adapted for men. (C.R. 2913; Hist. Rec./H/327/5.)

2 Hist. Rec./H/327 5. The size of the living-rooms was in the first case 15 ft. by 10 ft. 6 in. and a scullery 8 ft. by 6 ft., in the second 18 ft. by 10 ft. 6 in. The measurements of bedrooms in the three-bedroomed cottages were 11 ft. 3 in. by 8 ft. 10 in., 10 ft. by 7 ft. 6 in., 8 ft. by 7 ft.; of the two-bedroomed cottages, each 10 ft. 6 in. by 8 ft. 10 in.
large dining-halls, with central cooking arrangements, and constructed to seat some 2,500 men at a time, were also erected.

To this accommodation was added, as the communal life developed, the church of St. Michael, a simple structure of wood, cement and plaster; a school capable of holding 500 children; a large hospital, with operating theatre and X-ray apparatus; a large covered market and public laundries and baths. A post office, attached to the British postal service but served by Belgian officials, a police station and a prison were also provided.

The village was erected on a slight slope on the left of the main road leading from Birtley to Low Fell. It was fenced round and had one entrance. The general effect of buildings such as have been described, all—with the exception of the bungalows—of one storey and all arranged with geometric precision, was one of monotony. Some relief, however, was afforded by the variety of the carefully tended front gardens. The three main roads, too, were broad and well metalled, with a carefully tended path on either side. The side streets were considerably narrower and at first (partly owing no doubt to the bad weather of 1916) retained a close affinity with the marsh from which they had been reclaimed. What was lacking in variety of scenery was supplied by picturesque nomenclature. We find among street-names General Leman, Cardinal Mercier, Joffre, Haclen, Yser, Liège, Montenegro, Japan, Portugal, a Place George V, a Boulevard Queen Mary, and a Rue Lord Kitchener. The name of Elizabethville given to the whole village was of course in honour of the Queen of the Belgians.¹

The interior of the cottages doubtless showed more individuality than the exterior. In accordance with the agreement with the Belgian Minister, the Ministry had undertaken the furnishing both of cottages and hutments. The kitchens of the former were supplied with dressers and ranges, the bedrooms with hanging or corner cupboards. In addition, an adequate amount of simple furniture with bedding and crockery was supplied to each family. The Belgian housewives, as a class, proved themselves capable and thrifty, and with the simple means at their disposal, combined with the good wages earned by the men, made their homes both attractive and comfortable.²

The village was supplied throughout with electric lighting and water obtained from Newcastle. All the common buildings and the hutments were heated, but the heating of the cottages was supplied by the tenants. It had its own system of sewerage.

¹ Hist. Rec./R/327 30.
² The catalogue of sale of the household furnishings of the township in May, 1919, furnishes an interesting comment on the efficient manner in which the Ministry carried out this side of its bargain. The list includes such items as 2,500 chests of drawers of painted or stained wood, 2,500 toilet tables with mirrors, 1,000 upholstered chairs, 12,000 small chairs, 5,000 beds, 6,000 flock mattresses, 15,000 blankets, numerous bedside mats in attractive colourings, and a quantity of tea and dinner services with blue and gilt borders. The houses of the staff were furnished more ambitiously, as indicated by the enumeration in the catalogue of walnut and oak dining-room suites, white enamel or oak bedroom suites, chairs upholstered in leather, overmantels, etc. (Hist. Rec./R/327'11.)
The Ministry charged rent to the Belgians based upon the capital outlay on the scheme. In order to obtain a sound assessment they called in the assistance of Mr. Barlow and Mr. Appleton, the Bournville housing experts, and it was agreed to fix the rents at 10s. per week for the three-bedroomed cottage and 8s. for the two-roomed cottages. The charges in hutments and hostels was 6d. a night. It must be remembered that these rents included lighting, water, furniture and the use of the village market, hospital and other common buildings.¹

### III. The Composition of the Colony.

The method ultimately employed of recruiting labour for Birtley factory from the Belgian army was to have a marked effect on the character of the village. As stated above, the elaborate recruiting arrangements made by the Belgian managers had broken down hopelessly by December, 1915. An examination into the causes of their failure was made by Mr. Spicer, appointed by the Ministry at this date co-ordinating officer to represent them in all matters relating to labour for the Birtley factory. In the course of his inquiries it became evident to him that the only remaining source of available skilled labour of the type required was the Belgian army. The Ministry therefore decided to approach the Belgian authorities, and in the agreement which was eventually made between the two Governments² the Belgians made a specific promise to withdraw up to 1,000 highly skilled men from the Belgian army. In addition they instructed their military authorities to place all Belgian soldiers recommended for discharge at the disposal of Birtley as they left hospitals in this country.³

Arrangements were made by which some 500 unskilled soldiers were trained in lathe work at a munitions school at Loughborough before going to Birtley. The Belgian Government also set up a training centre at Moisson, in France, where men withdrawn from the army were tested and where wounded soldiers in France were trained for work at Birtley.

Instructions were also given to the Belgian Employment Exchange at Aldwych to put any available Belgian labour in touch with Birtley, but the skilled men from the Front and the soldiers proposed for discharge accounted for between 80 and 90 per cent. of the labour employed at Birtley.

The highest number of workers employed in the factory ranged between 3,500 to 3,700. These workers were, with a few exceptions, men: owing to questions of discipline it was decided not to

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¹ In their estimate the capital cost of the entire scheme, including land, building, furnishing and general charges, was £272,115. They reckoned that the total annual charges, including repayment of interest on capital, repairs, water rates, lighting, heating and management, would come to £33,987. The total rents fixed amounted to an annual income of £40,278, leaving a margin which put the scheme on a sound financial basis. (Hist. Rec./H/327/5.)

² See above, p. 59.

³ Hist. Rec./R/327/20.
employ female labour in the factory. Married men, who were in the minority, were joined by their wives and children and in this way the population of the village attained a total of 6,000.

Belgium has its own religious, political and racial dissensions, but one source of dissension was largely avoided by the fact that of those Belgians who came to Birtley, the Walloons were greatly outnumbered by the Flemings. The Walloons, who came from the most important engineering centres in Belgium, supplied the small percentage of skilled labour required, and the foremen, whose relations with the workers were by no means satisfactory at first, were drawn from their number.

IV. The General Administration.

In 1916, Elizabethville was administered by the Belgian Government on strictly military lines; the workmen were treated as soldiers first and munition workers second. Under the agreement with the English Government it was arranged that a general manager should be appointed to control the factory and its workers and that a Belgian officer, assisted by a force of gendarmes, should be responsible for order in the village. This “chef du village” possessed the powers given him by Belgian military law in case of military offences, and in addition dealt with refusals to work in the factory, insolence to foremen, etc. Offences by Belgian civilians, who were, as above stated, a small minority, were dealt with by the English police and the ordinary tribunals.

Local government was carried out entirely by the Belgians; the hospital was in charge of Belgian army doctors and orderlies, aided by Belgian nurses; the church and cemetery were in charge of Belgian chaplains; Belgian masters and mistresses were supplied to the school by the Belgian Government; the post office, though attached to the British postal service, was served by Belgian officials; the retail stores were financed by the Belgian Government and managed by the Belgians.

A representative of the Ministry was in residence at Birtley from the first to act generally as liaison officer. He took full responsibility for all matters connected with the financial side of the factory, paid all wages, based strictly on local rates, and was responsible for providing raw materials and supplies of all kinds. He had an administrative staff of English clerks, interpreters, inspectors, etc., which already in 1916 numbered 500.

During 1916 there was an ever-increasing discontent among the Belgians against the military administration of the village, culminating in a serious riot in December. Their resentment was aggravated by the fact that many of the disabled soldiers had already been treated as civilians elsewhere, and all knew that English soldiers while working

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1 Hist. Rec./R/327/29. In April, 1917, out of a total of 3,708 workers, 36 only were women. (Hist. Rec./H/1122. 4/37.)

at munitions were not under military law. They also showed special distaste to government by gendarmes, whose tradition and views as to the maintenance of order are different from those of the English police, and who in their own country are accustomed to carry arms. Dissatisfaction centred especially around certain applications of military law, notably those relating to the compulsory wearing of military uniform outside the village and out of working hours, and the prohibition from entering English public-houses in the neighbourhood. Disproportionate punishment for minor offences was also complained of, imprisonment for several days being often inflicted for what we should term "misdemeanours." There is no doubt also that their sense of grievance was aggravated by the discomfort attendant on the first year of village life, and a general lack of opportunity for distraction and amusements.¹

On the whole it was the infringement of personal liberty which was at the root of the discontent, and this did not affect the factory, where nothing stronger than minor complaints such as occur in all factories, or individual instances of jealousy between Fleming and Walloon, are shown to have existed.

The immediate cause of the riot was the imprisonment of a workman for wearing civilian clothes. On the evening of 21 December some 2,000 workmen assembled outside the Gendarmerie and attacked it with stones and bricks. A gendarme who was hit fired a revolver on the crowd, wounding a boy. The attitude of the rioters became very threatening, they attacked the house of the Chief Officer and, supplying themselves with rags soaked in oil, threatened to burn the colony. It was decided by the representatives of English authority to release the prisoner in order to satisfy the mob, and the rioters were thus persuaded to go quietly home. Meanwhile the Belgian manager of the factory had telegraphed to the Ministry, with the result that the Northern Command was instructed to hold itself in readiness to send soldiers to Birtley. Fortunately, intervention by the British military force, which would have rendered a continuation of the Belgian régime impossible, was avoided.²

The immediate result of the riot was the withdrawal of the Belgian gendarmes and the substitution of British police. A new "chef du village" was appointed and in various ways military discipline, while not superseded, was relaxed. The tendency was, as time went on, for the British representative to take over more and more administration.

A further consequence, which reacted favourably on the life of the village and considerably strengthened the position of the British authorities, was the establishment of the Birtley munitions tribunal. It was a real grievance that under the arbitrary military rule the Belgians had no court of appeal, and the Ministry felt that some judicial and impartial body was needed to investigate grievances and to deal with breaches of discipline. After considerable negotiations carried on throughout 1917, the Belgian Government finally agreed that a tribunal should be set up under the Munitions of War Act, 1915 to 1917, on

¹ See below, p. 65. ² Hist. Rec./R/327/10, 15.
precisely the same footing as other munitions tribunals throughout the country. This tribunal, which included three assessors from the staff and twenty-four assessors, both Fleming and Walloon, representing different grades and different shops, was also authorised by the Ministry to act as a Court of Conciliation. It held ten sittings up to October, 1918, ninety-four cases were dealt with and fines amounting to £140 were imposed.1

V. The Communal Life (1916–1918).

As has already been indicated, Elizabethville was, during the first year of its existence, hampered by various drawbacks. The first Belgians arrived at Birtley in October and November, 1915, to find no houses provided, and numbers were reduced to sleeping on straw in a shed. A disused cinema was hastily fitted up for temporary lodgings and the construction of the village, particularly the hutments, was accelerated. In the spring of 1916 Belgians began to pour in, to find that accommodation for them was by no means ready. The weather added to the general discomfort, the rain was incessant; there were no roads, no pathways; pedestrians floundered up to the knees in mud; a persistent moisture pervaded everything.

By June, 1916, there were approximately 1,000 Belgians, living chiefly in hutments. Life in the village at this time was monotonous. The only place to sit in the evening was the dining-hall; there was nowhere to write letters, no games or facilities for amusement. Working hours were over by 6.30 and there was no Sunday work, so that long hours of idleness lay heavy on their hands. The men earned good wages and the possession of means for procuring amusement aggravated the enforced dullness of their lives. The language difficulty would have prevented them mixing freely with the English population even had not the military régime placed impediments in the way, in particular the prohibition to enter licensed houses in the district. The neighbourhood, too, was inclined to adopt an attitude, traditionally British, of criticism towards the alien, while the fact that many of the Belgians were obviously of military age was at first misconstrued.

It is little wonder that the general discontent found expression in the riot of December, 1916, though at that date many of the factors which were to make for later harmony were already at work, houses were beginning to be habitable, arrangements were being made to open some licensed cafés, and men were beginning to settle down with their wives and families. The commissariat of the village was also organised in 1916 on semi-co-operative lines; the wholesale purchase of all food was undertaken by an administrative body known as the Service Économique, financed by the Belgian Government. A central covered market was erected and here all provisions could be bought retail by the villagers. When towards the close of 1917 the food shortage became serious, a Food Control Committee was set up and followed

1 Hist. Rec./H/327/2. In accordance with the Munitions of War Acts these fines were paid to the Ministry of Munitions and by them to the Treasury.
as closely as possible the English scheme, and all rationed food was obtained through the Service Économique. Shortage of food occurred here as elsewhere early in 1918, but owing to the clear-cut position of the colony and to the excellent work being done at the factory, the Belgians obtained from first to last a generous share of everything.  

Commodities other than food were sold by individuals and the village had its street of flourishing shops, which included tailors, boot-makers, drapers and barbers.

Among the most characteristic features of life at Elizabethville were the communal meals, provided primarily for those dwelling in barracks and hostels, but also shared by a large number of other inhabitants. The food was excellent and the charges low. There were at first two large dining-halls grouped round a central kitchen. A third, the Cheval Blanc, was opened about October, 1917, and reproduced as far as possible the features of a Belgian café-restaurant; it seated from 600 to 700 workers; a band played every evening; and it was licensed for the sale of beer but not of spirits. Under the same roof was the Birtley Recreation Hall.

By degrees the public services became organised. An early complaint as to lack of medical treatment was remedied by the erection of a hospital for 100 beds, fitted with X-rays and other modern appliances. A dispensary attached to the factory was also opened in 1916. The general health of the colony throughout was good, the death-rate averaging about 8.54 per thousand. At first funerals took place at Chester le Street, but towards the close of 1916 a field near the village was set apart as a cemetery for the colony.

The schools were originally built to hold 600 children but had later to be enlarged. The girls and infants were taught by Belgian refugee nuns and the boys by army schoolmasters or disabled soldiers who had formerly been schoolmasters. The children were all taught English in addition to French and Flemish.

The Belgian is essentially a creator of "Societies," and, though they were not officially encouraged, many sprang into existence at Elizabethville between 1916 and 1918. These societies were very diverse in character, and all, whether industrial, philanthropic or purely for amusement, had in common a development of the social side by means of concerts, dramatic performances or fêtes, generally organised for the benefit of some war charity. This applies even to the important branch of the Federation of Belgian Metal Workers, which was established in Elizabethville in 1916 and numbered upwards of 3,000 members.

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1 Hist. Rec./H/327/4 and 6. The Belgian's weekly income at this time averaged £5 10s., and compared very favourably with that of miners in the district who were working on short time. At the beginning of the food shortage the colony stores found considerable difficulty in getting supplies, and the industrious Belgian, basket on arm, was soon found ranging the country-side in quest of provisions, a proceeding naturally regarded with jealousy by the miners.

2 Hist. Rec./H/327/5. The charges were 4d. for a breakfast of coffee with milk and sugar, bread and butter, 10d. for a dinner of soup, meat, potatoes, cabbage and a slice of bread, and 5d. for a supper of soup, potatoes, bread and cheese.
The Vlaamsch Verbond, the Cercle Wallon, and Les Amis de Luxembourg were social clubs. The artistic side was represented by a band, supplied with instruments by the Belgian Government at the close of 1916. This band organised Saturday evening concerts at Birtley Hall and on several occasions gave performances outside the village. An orchestra formed about the same time took part in the concerts organised at frequent intervals for charity. Dramatic societies—the Comoedia, le Cercle Drolatique, l'Union Artistique—flourished. The Union Sportive provided its members with boxing, fencing, and gymnastics, and there were also swimming clubs, football clubs and a very popular troop of Boy Scouts.¹

To sum up, during the last two years of its existence Elizabethville was sufficiently provided with the amenities of life, the men were well paid, their physical wants were adequately supplied and everything possible had been done to relieve the monotony of exile.

VI. Demobilisation.

The convention of 11 February, 1916, had provided that as soon as possible after the cessation of hostilities, the Belgian workers at Birtley National Projectile Factory, together with their families, should be sent back to Belgium at the expense of the English Government. Methods of repatriation were under consideration of the Committee on Demobilisation and Reconstruction in the summer of 1918, but it was agreed that details must depend upon the prevailing conditions in Belgium at the close of the war.²

Immediately after the signing of the Armistice arrangements were started for repatriation. The more outstanding difficulties may be briefly enumerated. A port of embarkation had to be fixed, ships obtained, a service of special trains authorised, the requirements of alien authorities had to be ascertained and met, household inventories had to be checked in the village, transport of luggage—including special licenses for such articles as church furniture and motor-cars—arranged for, and suitable rations provided owing to the precarious conditions prevailing in Belgium.

In spite of what seemed almost insuperable difficulties, the first party, numbering about 1,425, started on 7 December from Hull, and by 20 January, 1919, the village was deserted save for the administrative staffs and a few stragglers detained on medical grounds. With the departure on 5 February of the Belgian administrative staff, this exotic colony, which for nearly three years had flourished in spite of the somewhat bleak and uncongenial conditions prevailing in the North of England, was finally dispersed.³ Birtley National Projectile Factory was sold towards the end of 1919 to Messrs. Sir William Angus Sanderson, who also rented a portion of the village to house their workpeople. Four hundred houses were transferred to the Ministry of Labour in connection with their industrial training schemes, while the hospital with its equipment was taken over by the Ministry of Pensions.

CHAPTER VIII.
THE GRETNA TOWNSHIPS.¹

I. Introductory.

In June, 1915, it was decided to erect at Gretna a large cordite factory likely to employ between 10,000 and 15,000 workers. The introduction of such numbers into a rural area, whose population hitherto had amounted to some hundreds only, was bound to raise the question of housing in an acute form. The railway companies were immediately asked to report on the housing in the neighbourhood within a 25 mile radius. Meanwhile the Explosives Department consulted the Local Government Board, whose chief town-planning expert, Mr. Raymond Unwin, in July took in hand the preparation of a scheme, for temporary huts in the first instance, but later extended to include permanent houses, shops, cinemas and other buildings forming the equipment of a modern town.²

The adequacy of the neighbouring towns and hamlets to supply sufficient accommodation was immediately tested. With the cutting of the first sod on the site in August, 1915, thousands of navvies and other labourers invaded the district to make roads and railways, construct drains, lay cables for light and power, erect workshops, hutments, messrooms and streets. In October, 1915, there were 5,000 constructional workers on the site, at the beginning of 1916 there were between 8,000 and 9,000, and it was not until late in 1917 that the work of construction was completed.

Indeed, the main housing concern at Gretna up to the middle of 1916 was the accommodation of these workers. Investigation proved that the limit of accommodation within a radius of between three and twenty-five miles of the site was about 4,500 persons. Temporary expedients, not always ideal in character but calculated to obtain the maximum of accommodation in the minimum of time, were employed to provide further housing. Old farm buildings, warehouses, and a distillery were converted into temporary dormitories and kitchens, and a number of wooden hutments erected. Towards the close of 1915 temporary buildings of the new town began to be available, but as they were not required for operatives a certain number of bungalows and hostels were taken over between December, 1915, and June, 1916, and used for construction workers.

¹ Except where otherwise stated this account has been compiled from matter filed in Hist. Rec./H/1122. 7/19.
² 74/U/42: unregistered papers of Sir H. Llewellyn Smith and Major Corbett.
Operations began at the factory at the latter date and from that time forward there was a steady flow of workers into Gretna. Operation and construction proceeded side by side for some time, but there was an appreciably growing diminution in the number of construction workers. In many cases, resident construction workers were transferred to the factory as operatives, and were not disturbed in their tenancy, and by August, 1917, the townships, by this time in good working order, were in the full possession of the staff and operatives of the factory.

II. The Plan and Construction of the Townships.

Careful computation, which took into due account the accommodation available in surrounding towns and villages, had shown that, when the work of the factory was in full swing, housing must be provided for about 13,500 persons, of whom 7,500 would be single persons while the remainder would be married employees of the factory and their families. The fact that so large a number of the workers were either unmarried or at any rate living away from home had an important bearing upon the character and class of accommodation, the hostel type predominating.

The first buildings put up in 1916 were looked on as temporary and were built of timber, which then offered the most speedy and economical means of construction. They consisted of four-roomed cottages for married men, bungalows accommodating 9 workers and a housekeeper, and hostel each accommodating from 70 to 100 single workers. As the work proceeded the erection of temporary quarters gave way, owing to the scarcity of timber, to permanent brick buildings. Hostels built at this late date held anything from 100 to 150 workers and were in reality blocks of cottage shells with the internal fittings and partitions left out, and capable of conversion into workmen's dwellings. The brick cottages varied between the "parlour" type with living-room and three bedrooms, and the "living-room" type with three bedrooms. In addition a few houses of a more imposing character were erected for the senior staff.

The wooden buildings were all one-storey, with a resulting effect of monotony. The permanent cottages and hostels had a ground floor and upper storey. The designs differed considerably, while arrangements in pairs or small groups and the alternation of brick and rough cast served to secure some variety. Each house had a garden divided from its neighbours by hedges of privet, thorn, beech or mirabel plums; their cultivation was left to the taste of the individual tenant, which was stimulated by the institution of a Horticultural Association in the autumn of 1917.

The total number of dwellings erected was 670 timber huts, 54 timber hostels, 310 brick or stone houses and 134 brick hostels.

1 The maximum number of 24,000 workers was attained in January, 1917.

2 Of these 139 were of the bungalow type, affording double the accommodation of the other cottages and in some cases were run by married workers as small boarding houses.
representing accommodation for 13,485 persons. The dwellings were mainly concentrated in two townships, Gretna and Eastriggs, corresponding to the grouping of the factory's work under two roofs. At Gartleburn, a settlement of temporary wooden huts and hostels was constructed for the factory police and for chemists and workers in the cordite and magazine areas. A few houses were scattered at other points. The following table shows the disposition of the buildings:

<table>
<thead>
<tr>
<th>Locality</th>
<th>Wooden.</th>
<th>Brick or Stone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gretna Township</td>
<td>427</td>
<td>47</td>
</tr>
<tr>
<td>Eastriggs</td>
<td>165</td>
<td>16</td>
</tr>
<tr>
<td>Gartleburn</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Other points</td>
<td>46</td>
<td>3</td>
</tr>
</tbody>
</table>

Gretna, the principal township, with an area of 431 acres, was situated in the central part of the factory area on land sloping immediately south to the old village of Gretna Green. The lay-out was divided into two, the older quarter where the temporary wooden houses and hostels were grouped and the newer quarter where the permanent houses and public buildings were established. Three main thoroughfares and numerous subsidiary roads were constructed to link up the township in addition to the existing main road from Carlisle to Dumfries which traversed the site. The Central Avenue running from north to south was the main thoroughfare, and here were to be found the dozen or so buildings, with shops on the street level and flats on the upper floor, which constituted the shopping centre of the township. Here also were the Post Office, the Border Hall, the cinema and other of the principal public buildings. In the south-west the township compound included the stores, the steam laundry, the central kitchens and the bakery which served both Gretna and Eastriggs. The works hospital, beautifully situated on rising ground, stood on the main Dumfries road.

Eastriggs township, with an area of 173 acres, lay at the western extremity of the factory area, and was chiefly inhabited by those workers engaged on the Dornock section. It occupied the site of an old farm, and a fine avenue of old trees formerly leading from the public road to the farm was preserved to form the main thoroughfare. On the east of this thoroughfare were the temporary wooden buildings, and on the west the permanent brick houses. The shops and public buildings were arranged around an open space in a new road leading directly to the factory.

Electric light was laid on in all the houses and public buildings and was used for lighting the streets. It was supplied from the power house at a sub-station in each township.

At both Gretna and Eastriggs the Ministry undertook the provision of permanent churches. These buildings were all interesting and added character to the townships. At Gretna there was a Scottish Episcopal church built on Gothic lines, a Presbyterian church in the Italian style with rough cast walls and red tiled roof, and a Roman Catholic church in the Italian Renaissance style. At Eastriggs the
Scottish Episcopal church was of local red sandstone roofed with north country green slates, and the Roman Catholic church was Italian Renaissance.

Recreation grounds, laid out for football, hockey and cricket, were immediately adjacent to the townships.

Surplus land in each township was cultivated with oats, potatoes, garden produce and hay or grazings. Operations began on 73 acres in the autumn of 1916 and eventually included 2,025 acres. In the season of 1917-18, the food catering department received an average weekly supply of 12 tons of potatoes, 810 cabbages, 7 dozen cauliflowers and periodic supplies of onions, beets, carrots, etc., while surplus supplies were sent as far afield as Glasgow.

The sewerage system installed in such a scattered area was necessarily one consisting of many independent units. The water carriage system was in operation throughout, and the sewerage of both Gretna and Eastriggs was discharged into the tidal waters of the Solway. The system of house drainage in the townships, by which two or more houses shared a common drain and disconnecting trap, has since been adopted by the Local Government Board for the new housing schemes being prepared throughout the country.

III. Organisation and Administration.

(a) General.

The general administration of the townships was vested in a town manager who controlled—more or less directly—the various services which Gretna, as a highly organised community, was to establish in process of time. An important part of his work was concerned with housing; the allocation of houses to tenants, the collection of rents (reduced, however, to a very simple basis by a mandate signed by the tenant on entry into possession allowing the rents to be deducted from his salary), the maintenance of repairs and the upkeep of equipment¹ were all directly administered by him.

There were other administrative problems which must be regarded as incidental to the peculiar conditions under which the community sprang into existence and to its isolated position, notably that of the food supply. The town administration had to consider the needs not only of the 25,000 factory workers, who required mid-shift meals, and of the 7,000 residents in huts and hostels for whom they were responsible, but they had also to ensure that an adequate food supply should be available for the ordinary residents. This was secured by the institution of a catering department and a systematized centralisation of stores. Private traders were given facilities for setting up business

¹ The hostel and bungalows were furnished by the Ministry according to a carefully prepared schedule, standardized for each class of building. Provision had also to be made of simple furniture for a considerable number of the huts and houses as many of the married operatives and staff came from a distant part of the country. An increased rent was charged in the latter case.
in the town,\(^1\) but in order to prevent a monopoly among them with a consequent exploitation of the consumer, the catering department opened a shop for meat and groceries, and by charging a certain percentage over cost to some extent fixed retail prices in the neighbourhood.

Certain essential supplies, however, remained so uncertain that special steps had to be taken. A large steam bakery was equipped to ensure an adequate supply of bread. A steam laundry, equipped with the most up-to-date plant, was opened in May, 1916, to deal with the enormous quantities of bedding and domestic washing in connection with the hostels, and also with articles of factory clothing such as overalls, dungarees, caps, etc. Three wash-houses were also constructed at points convenient to the groups of hostels where the girls were able to wash, dry and iron their clothes at a nominal charge of 2d. with soap and soda provided.\(^2\)

The organisation of strong measures in case of fire at Gretna, where the handling of inflammable and explosive process materials in the factory area, together with the large number of wooden houses and hutsments in the townships, made the fire risks very heavy, was a primary necessity.\(^3\) A professional Fire Brigade was accordingly instituted under the supervision of a Fire Master who reported weekly to the town manager, and three fire stations were set up at Gretna, Blackbank and Eastriggs. As a preventive measure during the air raids a factory volunteer brigade was formed and on occasion rendered valuable service in the extinction of fire. Between 1916 and 1918 the Fire Brigade was called in for 207 actual fires of which ten were of a serious character.

The site of the factory was both in Cumberland and Dumfriesshire, and was in the first instance policed by both counties. When the factory started working, Gretna was formed into a special police area.\(^4\)

\((b)\) Public Services.

The responsibility for public services (which in the ordinary course of events would have been undertaken by the central or local authority concerned) was to a great extent assumed by the Ministry, more particularly where the maintenance of public health and provision of educational facilities were concerned.

\(^1\) More particularly an arrangement was entered into with the Scottish Wholesale Co-operative Society to open branch Stores in each of the townships in 1915. They sold goods at moderate prices sufficient to meet all expenses and leave a fair balance, which, after deducting a charge equivalent to 5 per cent. on the capital expenditure involved, was handed over to the Ministry as rent for the premises occupied. This arrangement lasted till April, 1917, when the Society took over the business on the usual co-operative basis.

\(^2\) The wash-houses, which were a great success among the operatives, were reserved on certain days for the use of private householders, who did not avail themselves of the opportunity to any great extent, preferring to use the washing facilities with which every house was provided.

\(^3\) Within the factory fences strong preventive measures against fire were also organised.

\(^4\) Hist. Rec./R/1122. 7/24.
The need of special medical arrangements became apparent while the factory was under construction, and in December, 1915, the Ministry arranged with the National Health Insurance Commission to be responsible for medical attendance required both by workers in the factory and by residents in the factory area.\(^1\) The services of local doctors were secured, surgeries for first aid were established in the area, and arrangements made for infirmary treatment at Carlisle and Dumfries on terms similar to those charged for military patients.

These arrangements with the Commissioners, intended primarily for construction workers, continued, with certain modifications, after "construction" had merged into "operation." With the growth of the community it was found necessary to provide a special medical staff subject to and directly controlled by the Ministry. Gretna was served by one male and two female Medical Officers, Eastriggs by one male and one female, while in August, 1917, an administrative Medical Officer was appointed for the whole district. It was also found necessary to provide hospital accommodation on the spot, and in 1915 a works hospital, which with later extensions accommodated 84 patients, was erected.

The major infectious diseases were dealt with in the usual way by the local authorities, but the Ministry provided and equipped two wards in the Annan Infectious Diseases Hospital and also contributed a moiety of the construction cost and maintenance of a small infectious hospital opened at Longtown in October, 1917, and managed by the Rural District Council. Minor infectious diseases were treated in a temporary Isolation Hospital, replaced in May, 1918, by 05 West Hospital. In October, 1916, the attention of the Ministry was called to the ill-health of a large proportion of the workers caused by bad teeth, and as a result a dental surgery was built and equipped at the Department’s expense which dealt with upwards of 1,300 patients.

The sanitary services, on which the general health of the community so greatly depended, were, by arrangement with the Dumfries County Council and the Longtown Rural District Council, undertaken by the Ministry. A staff of sanitary inspectors dealt with all matters relating to sanitary defects and other nuisances and overcrowding; they took action in cases of infectious disease and maintained an inspection of food supplies.\(^2\) They were assisted in their work by a very

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\(^1\) The Insurance Commissioners agreed to repay on a cash value basis in respect of insured workers.

\(^2\) The extermination of rats was a matter of serious consideration. Mr. Duckworth, who visited the site in January, 1916, had foretold this nuisance, and had then recommended the appointment of a professional rat-catcher. (Hist. Rec./R/1122. 7/6.) Events justified his forecast: glycerine and other stores disappeared, potato dumps were riddled with holes, drawings in offices were destroyed; it was estimated, indeed, that each rat caused a loss of one farthing per day by the destruction of food and material. Such damages, combined with the danger from the spread of diseases, led to the appointment of professional rat-catchers in January, 1918. The number of rats destroyed in one way and another was 12,646.
efficient system of scavenging, carried out in the townships under the direction of the town manager and in the factory areas by the factory managers.

As a result of these precautions, the health record of Gretna was, on the whole, satisfactory. The number of deaths was 145, of whom 30 were females. The 1917 epidemics of measles and German measles visited the townships, but not so severely as the influenza epidemics in the following year. The epidemic of June, 1918, attacked about 1,400 persons, but was much lighter in character than the second outbreak of October, when 35 deaths occurred and the schools had to be temporarily closed.

As stated above, the Ministry undertook the provision of educational facilities. Those already existing had been barely sufficient for the needs of the scattered rural district; schools at Gretna and Dornock together could only take 130 pupils,¹ whereas it was considered that two schools each providing for 500 scholars would be necessary to meet the full requirements of the new community. The Ministry decided to erect these schools and, in order to maintain control over them, to administer them as voluntary grant-earning schools. Duplicate schools, planned on modern and well-considered lines, thoroughly well-lighted and ventilated and with bright, spacious and airy classrooms well supplied with all necessary teaching apparatus, were accordingly erected at Gretna and Eastriggs. The schools were controlled and administered by a local committee under the presidency of the town manager, and were inspected by the Scottish Education Committee. The maximum yearly attendance at Gretna was 396 and at Eastriggs 272, but the construction of both schools was undertaken in portions as the need for accommodation grew, and at the time of the Armistice neither building had been completed.

In conclusion, mention must be made of the means adopted to meet the abnormal increase in postal business, the existing rural sub-office at Gretna Green being of course entirely inadequate. Post offices were established at Gretna and at Eastriggs; a branch office was opened at Gartleburn and pillar boxes were plentifully distributed over the site. Other offices in the neighbourhood helped to relieve the situation; thus at Annan an adjoining building had to be borrowed for post office business on the factory pay-nights. Some idea of the vast amount of business transacted is gathered from the fact that during 1917 over two million letters were posted and about the same number delivered.

(c) Social and Recreation Schemes.

The organisation of a social and recreation department as carried out at Gretna was the result of abnormal circumstances and has no parallel elsewhere. In the early days of the factory, it was found that there was an increasing tendency for workers to remain at Gretna for

¹ The Scottish side of the Border only was concerned; on the English side a small school of the Cumberland Education Committee at Blackbank had to be closed as coming within the factory area.
comparatively short periods. A special investigation was held, resulting in the conclusion that the leakage of labour was almost entirely due to the absence of any regular means of recreation for either men or women in their leisure hours. With the object of keeping workers within the factory area and away from undesirable temptations elsewhere, railway services to neighbouring towns had been purposely restricted; for instance, there were no late evening trains between Gretna and Carlisle except on Saturday, when the latest train left Carlisle at 9.30 p.m. In order to ameliorate these conditions, the Ministry proceeded without delay to erect various places of entertainment and to establish a central and authoritative body known as “The Social and Athletic Association,” to which certain clubs and societies were affiliated.

The Treasury, in giving approval to this Association, laid down the broad principle that every effort should be made to render it self-supporting, but at the same time guaranteed indemnification to the extent of £3,000 against a possible loss on the working of the scheme. All social policy was to be determined by the superintendent of the factory, but the general control of the Association was vested in a standing Recreation Committee, composed of the leading officials in the factory and townships.

It was at Gretna, which had developed more quickly than Eastriggs, that a concentrated effort was first made to cater for the amusements of the new community. The pioneer effort of the Ministry was the erection of the Border Hall, with its spacious stage, fine dancing floor, extensive electrical plant and seating accommodation for 1,100 persons. It was erected, equipped and opened in little more than six weeks, to be in time for the first Christmas festivities of 1916. It was, however, determined from the outset that the accommodation provided at Gretna should be duplicated as far as practicable at Eastriggs and this was eventually accomplished. Thus each township became possessed of an institute, a cinema, a spacious hall for meetings, concerts and dances, a Mission hall, smaller buildings for general purposes, and a recreation ground with pitches for cricket, football, hockey and other games. Tennis courts and bowling greens were also provided.

The various clubs and societies which affiliated themselves to the Association were so numerous that it is impossible to do more than enumerate the principal ones. Chief among them was the Choral and Co-operative Society, the majority of whose members consisted, it is true, of members of the staff, but which contributed largely to the general amusement both by the production of such popular pieces as “H.M.S. Pinafore,” “The Gondoliers,” and “Paul Jones” (each staged for an entire week) and by sacred concerts on Sundays. They were seconded in their work by an Orchestral Society and an excellent Factory Band. Dramatic, horticultural, scientific, temperance, literary and debating societies were all well supported.

The favourite amusement, especially among the girls, was undoubtedly dancing, and every society and club at one time and another organised dances of its own. For reasons of policy the Recreation
Committee encouraged this form of amusement by instituting weekly "Free Dances" and "Popular Shilling Dances" both at Gretna and Eastriggs.

On the athletic side, football constituted the principal attraction during the winter, and at one time sufficient football clubs were in active operation to provide separate Leagues for the two townships. There were also hockey clubs, for both men and girls, and bowling clubs. During the summer the tennis courts were in great demand, and inter-club matches between Gretna and Eastriggs were arranged. Cricket clubs existed but, as was to be expected in Scotland, the game was not very extensively played.

The social history of Gretna would be incomplete without some account of the action taken to control the liquor traffic. During the early constructional period of the factory, when thousands of navvies and other labourers invaded the district, there was an abnormal increase in drunkenness. In August, 1915, the Ministry exercised their rights under the Defence of the Realm Act and took over the public-houses adjacent to the factory. The Central Control Board assumed control in November, and at the beginning of 1916 decided to adopt the principle of State purchase, and before March, 1916, most of the public-houses had been acquired. The sale of spirits was continued in certain cases. Thirteen canteens, licensed for the sale of beer but not of spirits, were subsequently opened under the auspices of the Board. An experiment, tried in co-operation with the Recreation Committee, of using them as recreation rooms when not open for the sale of beer was abused and had to be abandoned.

In conclusion, the Social and Athletic Association carried out the Treasury exhortation to be self-supporting. Its income was obtained in the first instance from annual club subscriptions varying between one guinea for the bowling club and one shilling for societies such as the literary and debating. These were by no means sufficient to cover expenses and the surplus income was obtained from the cinemas. In spite of the fact that the Association paid a yearly rental of £780 to the Ministry for the buildings, the profit from cinema performances were so large that, instead of making any demand on the Treasury guarantee, the Association voluntarily relieved the Ministry of many expenses for which it became responsible under the Recreation Scheme.

IV. Arrangements for Women Workers.

The problem of female labour at Gretna was unique. There was no possibility of drawing the full number of women required from the locality and between 5,000 and 6,000 had to be brought from all parts of the country. The Ministry recognised that the responsibility of their care was incurred, not only during factory hours but in their home lives as well. Early in 1916 they appointed a Lady Welfare Superintendent with a welfare staff, consisting of factory and hostel supervisors, clerical assistants and matrons, numbering, as the factory developed, upwards of 200 persons.
Arrangements for women at Gretna were grouped naturally under three heads—the engagement of labour, the supervision of the worker in the factory, and the supervision of conditions in the hostel. In the first instance the Employment Exchanges were authorised to secure the workers, but their arrival, often at the rate of some 200 persons a day, was arranged for by the Welfare Superintendent, trains were met, travellers were given free meals, medical inspection and enrolment in the factory were arranged for, and finally the worker was personally installed in the hostel to which she had been assigned.

Factory supervision of 11,000 women was complicated by the scattered nature of the factory and the prevalence of the three-shift system. It was carried out by the chief assistant to the Welfare Superintendent with a staff of shift supervisors and matrons of compounds. Welfare work in the factory was most successful. An excellent understanding existed between the girls and those in charge of them. Shift dances, shift concerts and plays, and even shift football matches were arranged by committees composed of staff and operatives, and this co-operation of the girls themselves produced particularly happy results.

The control of women’s housing, which included 70 large hostels and 40 to 50 smaller bungalows, was, however, the most important side of welfare work. The women were recruited from many employments; domestic servants, factory hands, laundry workers, shop assistants, farm hands, dressmakers, school teachers and clerks found themselves working side by side. It was essential at the outset to create a homelike atmosphere, which had yet to be combined with strict discipline. With this aim in view, hostel rules were made as simple and as few as possible, matrons and housekeepers were very carefully chosen, and the Lady Welfare Superintendent and her assistants kept in constant touch with every hostel.

Each hostel took the morning, afternoon or evening shifts in rotation, so that all girls housed in any one building were working on the same shift, with a consequent economy of labour and increase of general comfort. The meals were arranged in accordance with the shift; for the afternoon and evening shifts certain meals being provided at the factory. Board and lodging charges, fixed at 12s. in 1916, but rising gradually to 17s. 6d. as wages were augmented to meet the rise in prices, were deducted from the wages of each girl housed in Ministry quarters. Detailed arrangements as to absence, sickness, leave, discharge, etc., were necessary when the girls’ pay was so intricately bound up with their presence in or absence from the hostel. But this was only the framework of welfare. The real hostel life, the only one apparent to the girls, was that of a happy, comfortable home; good and plentiful food; clean, comfortable beds in prettily decorated cubicles; large fires in bright, gay mess and recreation rooms, combined with the kindly, sympathetic interest of the matron in charge. Abundant

1 The Lady Welfare Superintendent also controlled welfare work in the Carlisle area, which included oversight not only of two large hostels holding 750 girls, but also a good deal of visiting of the Gretna girls in Carlisle lodgings.
sources of interest and enjoyment were provided for the leisure hours. In addition to the social amusements organised for and indulged in by the community at large, there were hostel picnics on the shores of the Solway in summer, classes in needlework, dressmaking, millinery, first aid, singing, gymnastics and country dancing, cookery, laundry and basket making.

Hostel parties, got up by the matron assisted by a committee of the girls, were very popular at holiday times; men friends were invited and the programme generally consisted of a short concert followed by a dance. Sales of work were occasionally arranged for war charities. The Girl Guide movement was also introduced into Gretna, with an appreciable effect on discipline both in factory and townships. The Lady Welfare Superintendent acted as Division Commissioner and many of the staff were company officers.

The girls were encouraged to co-operate in the arrangements made for their comfort; every hostel or bungalow had its spokeswomen, elected by their fellows, who as occasion required met and conferred with the Lady Superintendent.

In short, all care and consideration was lavished on the women workers, whose welfare was considered by the Ministry as second only to the production of cordite.
## APPENDIX I.

(Chapter III.)

### Housing Schemes undertaken for Munition Workers, 1915–1918.

(a) **Temporary Cottages and Hostels erected by the Ministry.**

<table>
<thead>
<tr>
<th>Place</th>
<th>Capacity of Scheme</th>
<th>Date of undertaking</th>
<th>Firm or Factory concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham, Lickey</td>
<td>Hostels for 450 workers</td>
<td>1917</td>
<td>Austin's.</td>
</tr>
<tr>
<td>Birmingham, Longridge.</td>
<td>Hostels for 780 workers</td>
<td>1917</td>
<td>Austin's.</td>
</tr>
<tr>
<td>Birtley</td>
<td>895 Cottages, 46 Hostels for 3,000 workers</td>
<td>1915</td>
<td>Belgian N.P.F.</td>
</tr>
<tr>
<td>Coventry</td>
<td>466 Cottages</td>
<td>1916</td>
<td>White and Poppé, N.F.F.</td>
</tr>
<tr>
<td>Coventry, Holbrook Lane.</td>
<td>32 Hostels for 3,000 workers</td>
<td>1916</td>
<td>White and Poppé, N.F.F.</td>
</tr>
<tr>
<td>Coventry, Whitmore Park.</td>
<td>31 Hostels for 2,900 workers</td>
<td>1916</td>
<td>White and Poppé, N.F.F.</td>
</tr>
<tr>
<td>Coventry, Barras Heath.</td>
<td>5 Hostels for 5,000 workers</td>
<td>1916</td>
<td>Coventry Ordnance Works.</td>
</tr>
<tr>
<td>Dudley</td>
<td>345 Cottages</td>
<td>1916</td>
<td>Harper, Son and Bean, N.P.F.</td>
</tr>
<tr>
<td>Hereford</td>
<td>3 Hostels for 140 workers</td>
<td>1915</td>
<td>N.F.F.</td>
</tr>
<tr>
<td>King's Norton, Abbey Wood.</td>
<td>1 Hostel for 400 workers</td>
<td>1918</td>
<td>N.F.F.</td>
</tr>
<tr>
<td>King's Norton, Edgwood.</td>
<td>1 Hostel for 250 workers</td>
<td>1918</td>
<td>N.F.F.</td>
</tr>
<tr>
<td>Scotswood</td>
<td>5 Hostels for 500 workers</td>
<td>1917</td>
<td>Armstrong Whitworth.</td>
</tr>
<tr>
<td>Sheffield</td>
<td>411 Cottages</td>
<td>1916</td>
<td>Firths, Hadfields.</td>
</tr>
<tr>
<td>Woolwich</td>
<td>708 Cottages, 168 Hostels and Colonies for 2,061 workers</td>
<td>1915</td>
<td>The Arsenal.</td>
</tr>
<tr>
<td></td>
<td>1,500 Married Quarters, 16 Hostels for 1,600 workers</td>
<td>1915</td>
<td>The Arsenal.</td>
</tr>
</tbody>
</table>
## APPENDIX I.

### (b) PERMANENT HOUSES.

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of Houses</th>
<th>Date of undertaking</th>
<th>Type of Agreement</th>
<th>Firm or Factory concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avonmouth</td>
<td>150</td>
<td>1917</td>
<td>Post-war Ownership</td>
<td>Spelter Works.</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>1916</td>
<td>Writing off from</td>
<td>Vickers.</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>1917</td>
<td>Post-war Agreement</td>
<td>General.</td>
</tr>
<tr>
<td></td>
<td>202 semi-permanent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birmingham</td>
<td>251</td>
<td>1916</td>
<td>Ministry Loan</td>
<td>Austin's.</td>
</tr>
<tr>
<td>Coventry</td>
<td>600</td>
<td>1915</td>
<td>Grant to Local Authority</td>
<td>Coventry Ordnance Works.</td>
</tr>
<tr>
<td>Crayford</td>
<td>210</td>
<td>1916</td>
<td>Post-war Agreement</td>
<td>Siddeley Deasy.</td>
</tr>
<tr>
<td>Dolgarrog</td>
<td>250</td>
<td>1915</td>
<td>Ministry responsible</td>
<td>General.</td>
</tr>
<tr>
<td>Dudley</td>
<td>300</td>
<td>1915</td>
<td>Grant to Local Authority</td>
<td>Vickers.</td>
</tr>
<tr>
<td>Erith</td>
<td>400</td>
<td>1915</td>
<td>War Office Loan</td>
<td>The Aluminium Corporation.</td>
</tr>
<tr>
<td>Farnborough</td>
<td>250</td>
<td>1917</td>
<td>War Office Property</td>
<td>Harper, Son and Bean, N.P.F.</td>
</tr>
<tr>
<td>Guildford</td>
<td>28</td>
<td>1914–15</td>
<td>Writing off from</td>
<td>R.A.F.</td>
</tr>
<tr>
<td>Hendon</td>
<td>250</td>
<td>1917</td>
<td>Ministry Loan</td>
<td>Dennis Bros.</td>
</tr>
<tr>
<td></td>
<td>225</td>
<td>1917</td>
<td>Ministry Loan</td>
<td>Aircraft Mfg. Co.</td>
</tr>
<tr>
<td>Irlam</td>
<td>160</td>
<td>1917</td>
<td>Post-war Agreement</td>
<td>Grahame-White Co.</td>
</tr>
<tr>
<td>Lincoln</td>
<td>200</td>
<td>1917</td>
<td>Post-war Agreement</td>
<td>Partington Steel Co.</td>
</tr>
<tr>
<td>Oldbury</td>
<td>70</td>
<td>1916–17</td>
<td>Writing off from</td>
<td>Accles and Pollock.</td>
</tr>
<tr>
<td>Peterborough</td>
<td>48</td>
<td>1916</td>
<td>Writing off from</td>
<td>Brotherhood.</td>
</tr>
<tr>
<td>Redcar</td>
<td>300</td>
<td>1917</td>
<td>Ministry Loan and Grant</td>
<td>Dorman, Long.</td>
</tr>
<tr>
<td>Scunthorpe</td>
<td>36 semi-permanent</td>
<td></td>
<td>Post-war Agreement</td>
<td>John Brown &amp; Co.</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>1918</td>
<td></td>
<td>Appleby Iron Co.</td>
</tr>
<tr>
<td>Sheffield</td>
<td>261</td>
<td>1918</td>
<td></td>
<td>Firths N.P.F.</td>
</tr>
<tr>
<td>Spondon</td>
<td>158</td>
<td>1918</td>
<td></td>
<td>British Cellulose Co.</td>
</tr>
<tr>
<td>Stocksbridge</td>
<td>319</td>
<td>1916–17</td>
<td>Writing off from</td>
<td>Samuel Fox.</td>
</tr>
<tr>
<td>Weybridge</td>
<td>100</td>
<td>1916</td>
<td>Writing off from</td>
<td>Vickers.</td>
</tr>
<tr>
<td>Woolwich</td>
<td>1,086 houses, 212 flats</td>
<td>1915</td>
<td>Royal Arsenal responsible.</td>
<td>Royal Arsenal.</td>
</tr>
<tr>
<td><strong>Scotland:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clydebank</td>
<td>160</td>
<td>1916</td>
<td>Writing off from</td>
<td>John Brown &amp; Co.</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>1918</td>
<td>Post-war Agreement</td>
<td>Singer's.</td>
</tr>
<tr>
<td>Dalmuir</td>
<td>530</td>
<td>1915</td>
<td>War Office Loan</td>
<td>Beardmore.</td>
</tr>
<tr>
<td>Glengarnock</td>
<td>250</td>
<td>1916</td>
<td>Post-war Agreement</td>
<td>Colville's.</td>
</tr>
</tbody>
</table>
### (b) Permanent Houses—contd.

<table>
<thead>
<tr>
<th>Place.</th>
<th>Number of Houses.</th>
<th>Date of undertaking.</th>
<th>Type of Agreement.</th>
<th>Firm or Factory concerned.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scotland—contd.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gretna</td>
<td>941 cottages, 97 convertible hostels.</td>
<td>1915</td>
<td>Ministry responsible</td>
<td>Explosives Department.</td>
</tr>
<tr>
<td>Mid-Lanark</td>
<td>200</td>
<td>1915</td>
<td>Grant to Local Authority.</td>
<td>Beardmore.</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>1917</td>
<td>Post-war Agreement</td>
<td>Colville, Beardmore, Stewart &amp; Lloyd.</td>
</tr>
<tr>
<td>Port Glasgow</td>
<td>400</td>
<td>1917</td>
<td>Writing off from Excess Profits.</td>
<td>Russell &amp; Co.</td>
</tr>
<tr>
<td>Queens Ferry</td>
<td>191 6 convertible hostels.</td>
<td>1915–16</td>
<td>Ministry responsible</td>
<td>Explosives Department.</td>
</tr>
</tbody>
</table>

### (c) Houses adapted for Hostels, partly or wholly financed by the Ministry.

<table>
<thead>
<tr>
<th>Place.</th>
<th>Capacity</th>
<th>Date of undertaking.</th>
<th>Firm or Factory concerned, et c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrow</td>
<td>38</td>
<td>1918</td>
<td>Various Firms.</td>
</tr>
<tr>
<td>Birmingham</td>
<td>50</td>
<td>1917</td>
<td>For Roman Catholic girls.</td>
</tr>
<tr>
<td>Bristol</td>
<td>42</td>
<td>1918</td>
<td>Training Section.</td>
</tr>
<tr>
<td>Coventry (Foleshill Workhouse)</td>
<td>50</td>
<td>1917</td>
<td>Clearing Hostel.</td>
</tr>
<tr>
<td>Enfield</td>
<td>—</td>
<td>1917</td>
<td>Royal Small Arms Factory.</td>
</tr>
<tr>
<td>Farnborough</td>
<td>123 (3 hostels)</td>
<td>1916</td>
<td>R.A.F.</td>
</tr>
<tr>
<td>Gloucester</td>
<td>38</td>
<td>1916</td>
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APPENDIX II.

(CHAPTEIII.)

Housing Schemes administered by the Ministry on 1 July, 1920.

(a) HOUSES AND BUNGALOWS.

i. Complete (Permanent Schemes):—
   - Mid Lanark 250 houses Shirehampton 150 houses
   - Moss End 200, Coventry (Gordon Road) 24
   - Clydebank 100, Coventry (London Road) 214
   - Glengarnock 250, Queen’s Ferry 900

ii. Complete (Temporary and Semi-permanent Schemes):—
   - Sheffield 710 houses Scotswood 410 houses
   - Dudley 333
   - Barrow-in-Furness 202, Woolwich 2,654
   - Coventry (Holbrook Lane) 465, Woolwich (Archery Rd.) 1 41

iii. Incomplete (Permanent Schemes):—
   - Coventry (Radford Road) 226 104
   - Barrow 250 154
   - Lincoln (Wragby Road) 200 43
   - Irlam 160 12

iv. Schemes belonging to the Ministry, but not administered by the Housing Department.
   - Gretna: 601 wooden huts, 55 wooden hostels, 325 brick or stone houses, 30 brick hostels
   - Langwith: 41 houses
   - Pembrey: 17 existing houses taken over from Messrs. Nobels

(b) HOSTELS.

Edgwood (Men’s Hostels), Eltham (Women’s Hostels) and Sheffield.

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1 Converted Hostels.
2 Capable of conversion into cottages.
3 These were the only hostels occupied by tenants. There were also a large number of untenanted hostel buildings in various stages of disposal.
APPENDIX III.
(Chapter VI.)

Woolwich Housing Schemes.1

The housing problem in Woolwich and its immediate neighbourhood early assumed importance, owing to the influx of thousands of workers at the Royal Arsenal. On the outbreak of war, the numbers employed totalled 10,866; they had more than doubled themselves by January, 1915, while in May, 1917, they had reached 74,467. This rapid growth sufficiently indicates the urgency of the housing question, which was further complicated later by the introduction into the neighbourhood of many thousands of fresh workers for the Abbey Wood National Filling Factory and for the Thames Ammunition Company, the King’s Norton Metal Co., and other firms.

The steps taken by the Government to meet the housing difficulty included the erection of both permanent and temporary accommodation. The former method was adopted by the War Office, from whom the Ministry took over a large scheme for permanent houses begun early in 1915. The Ministry of Munitions, mindful of the serious depression at Woolwich and Erith after the South African War which led to working-class houses remaining vacant, concentrated on the provision of temporary accommodation. Attempts were also made to improve existing transit facilities so as to import workers from a distance, and extensions were made both to omnibus and train services, while a new ferry greatly facilitated the employment of workers from the North of the Thames.2

(a) Permanent Housing Scheme.

On 8 January, 1915, the Local Government Board, the Treasury, the War Office and the Office of Works, acting in conference, decided to embark on a building scheme for permanent houses at Woolwich. It was agreed that the work should be undertaken by the Office of Works, and the Department immediately proceeded to acquire the necessary land on the Well Hall Estate, near Woolwich. At the outset it was intended to erect 1,000 houses, but later, in order to cheapen the scheme, a certain number of flats were substituted, bringing the total number of dwellings to 1,298. The Local Government Board laid down that the scheme should be on the best town-planning lines, and twelve houses to the acre were adopted as a standard. The houses

1Based on M.W.39697, 39697/2, 3, 5; L.R.H/8/9, 10, 115; O.F./Buildings/23; Eastern/2/1605; M.F./Gen./1490; Hist. Rec./R./346.2/1, 5, 11, 24; Hist. Rec./H/346/3; Report of Committee of Enquiry into Royal Ordnance Factories and of Minutes of Engineering Sub-Committee (Hist. Rec./R/1122. 11/19); Minutes and Reports of Departmental Housing Committee, Jan., 1919–July, 1920; Report from Committee of Public Accounts (1917), Appendices 5, 12; (Printed) Weekly Reports No. 79, XII (10.2.17); No. 82, XII (3.3.17); No. 95, XI (9.6.17).

2See above, p. 43, for some account of transport facilities.
differed as to the amount of accommodation: 116 of the first-class contained three bedrooms, a bathroom, living room, parlour, extra room on the ground floor and a scullery; 357 of the second-class had the same accommodation with the exception of the ground floor room, while 613 third-class houses had three bedrooms, a living room and scullery. The flats, of which there were 212, had each two bedrooms, a living room and scullery. The weekly rents, which were fixed on the recommendation of the valuer to the London County Council, were 14s. 6d. to 16s. 6d., 12s. to 14s., 10s. to 11s. 6d. for the three different classes of houses. The rent of the flats was from 7s. to 7s. 6d. a week.

The governing consideration in the erection of these dwellings was urgency. Work was actually begun on 1 February, 1915; by September, 1915, about 1,000 were finished (of which the greater number were occupied), and the beginning of December saw the completion of the scheme. The maximum of speed was not attained without correspondingly heavy expenditure, and the total estimated net cost of the scheme was approximately £808,000, which worked out at the high average cost of £622 per house or flat, including land, roads, sewers and fences.

An arrangement was made with the Housing Department of the London County Council and was in operation during 1917, by which they managed the estate on the lines followed on their own estates in return for a remuneration of 4½ per cent. on the gross rentals.

(b) Temporary Schemes.

At the same time as the Well Hall Garden Suburb was started the Government took steps to ensure the rapid erection of 3 temporary hostels for boys and 50 huts, to serve as married quarters, at Plumstead. The extension to the Arsenal shops in the summer of 1915 and the proposed introduction of a large number of women workers compelled the new Ministry almost immediately to face the necessity of providing additional housing accommodation. In the first instance efforts were made fully to exploit local resources. Enquiry made as to the accommodation available in the district under the control of the naval or military authorities resulted in 70 married quarters being taken over from the garrison. A site on which roads and sewers were already constructed was obtained by the War Office from the London County Council, who had abandoned a building scheme there on the outbreak of war. On this site the Ministry proposed to erect 350 temporary huts, but investigation showed the site to be low-lying and broken by holes and ditches, which made any layout without previous filling a matter of difficulty, and eventually only 125 huts were erected. Married quarters were also erected on the Corbett Estate, Eltham, and in October, 1915, Treasury sanction was sought for a further 1,500 huts and for several hostels. In December, expenditure up to £345,000 for huts and £41,275 for hostels was sanctioned, which provided for 1,500 huts at a cost of £230 each, 5 boys' hostels, 10 hostels for women, each accommodating 100 workers, and an experimental hostel for men.
It was anticipated that the factories in course of construction and nearing completion at Woolwich at this date would employ an additional 20,000 workers. It was impossible for many of these to live at a distance as existing transit facilities were already wholly inadequate in spite of attempts to improve them, and in March, 1916, it was reported that the housing situation at Woolwich was "almost hopeless." Scores of men imported through various agencies threw up their work after a week or two because they could find no accommodation, while two months later, when attempts were made to shorten the hours of Arsenal workers, it was found impossible to introduce the three-shift system among women as suggested by the Hours of Labour Committee, since lack of housing space prevented the importation of sufficient women.

During the summer of 1916 building operations were hurried on, and the situation improved. By the end of the year, under the temporary schemes begun by the War Office and those instituted by the Ministry, there were already erected or in course of construction (a) seven estates of about 2,700 temporary bungalows at Woolwich, Greenwich and Eltham; (b) hostels, opened by the War Office, to accommodate 300 boys, and others being constructed by the Ministry for 500 boys, 1,000 women and 100 men. Later extensions were made to these, and other hostels were opened for men, so that by 1917, when the Arsenal employed 74,467 workers (including 25,000 women), between 3,000 and 4,000 men, women and boys were provided for in this way.

Bungalows were also put up on the Well Hall Estate, on the Churchfield Estate, a site at Plumstead owned by Queen's College, Oxford, on the London County Council site at Greenwich, on the Corbett and Bostall estates at Eltham and Abbey Wood, and at East Wickham, Lodge Lane and Shepherd's Farm, all of these sites being either loaned to the Ministry or acquired under the Defence of the Realm Act.

In addition to these plans for the benefit of Arsenal workers, the Ministry had in 1915 initiated hostels at Slades Green for 140 operatives at the Thames Ammunition Works, and later at Edgwood for 500 from the Abbey Wood National Filling Factory, while 5 girls' hostels, originally constructed for Arsenal workers, were taken over in 1917 for the use of girls at the National Filling Factory. The King's Norton Metal Company and Messrs. Vickers also organised hostels in the district in connection with their works.

Practically all the huts at Woolwich consisted of five rooms: living room, scullery and three bedrooms, and in some cases there was a bathroom. The question of rents formed the subject of prolonged negotiations between the Treasury and the Chief Superintendent of Ordnance Factories early in 1915, before the plans passed under the Ministry's control. Three different bases were proposed: (a) the rents of house with similar accommodation in the locality, (b) a fair return on capital outlay, and (c) the maximum readily obtainable. The Chief Superintendent urged the last as the only practicable course, since the aim in building had been to induce men to come into the
district in order to work at the Arsenal, and these would be unwilling to pay more than 5s. or 6s. per week. The actual cost of each hut worked out at the unusually high figure of £325 owing to the abnormal conditions and rapidity of construction. Thus calculating on a 20 years’ life at 4 per cent., the rentals should be 19s., while the economic return on 70 per cent. of the outlay, as required by the Treasury, would make the figure 15s. In May, 1915, the Treasury fixed the rents at 9s. 6d. and 10s. per week, which, during the year 1917-18, brought in a return of 21 ½ per cent. on the capital outlay. By August, 1918, all the huts available were occupied at these rates.

Some of the hostels were placed under the direct control of the Arsenal Welfare Supervision Department, as this facilitated smooth working as regards the allocation of separate wings to the different shifts to ensure quiet for sleep and similar details. Others were leased either to local committees or to organisations such as the Y.M.C.A., but with a special agreement to ensure their use as hostels for Arsenal workers. For example, in the case of the boys’ hostels the lessee undertook to use the building as a hostel for Arsenal boys only, to be responsible for the physical and disciplinary control of the boys and to provide for medical treatment when required. The Chief Superintendent of Ordnance Factories supplied equipment and paid rates and taxes, and the lessee paid a rent of 1s. per week for every person in the building. The total charge to the boys was not to exceed 12s. per week, but, subject to these conditions, the lessee made all arrangements for management and service at the hostels. The hostel charges made to women for rent were from 1s. 3d. to 1s. 9d. per week, according to the class of accommodation provided, while men were charged 1s. 6d. per week.1 The houses and bungalow huts were far more satisfactory than hostels from the economic standpoint and gave rise to little anxiety until the post-war period.

The huts were not so rapidly occupied as the permanent houses during 1916-17, and bad “slumps” in letting were experienced after the August air raid in 1916, and the bad weather late in the year. The reports on the bungalows showing the number occupied each week indicate a tendency throughout the whole period from 1916-18 for the numbers to rise in summer and decrease in winter, when the huts were inevitably somewhat damp and cold. In some cases the unavoidable minimum of discomfort was augmented by lack of permanent ventilation or by inferior timber. The worst estate for letting in 1916 was the Corbett Estate, the whole of which was low-lying and nearly twenty minutes’ walk from trams and shops. The municipal services, policing, scavenging, fire protection, etc., for all the estates were undertaken by the Woolwich Borough Council, and the huts were accordingly subject to rates. The roads were usually in a very bad state as they were only constructed for temporary use and were much cut up by army lorries taking short cuts.

The success of the hostels varied very considerably, some proving extremely popular while others were never used to their full capacity.

1 These charges were considerably less than those ordinarily prevailing in hostels, see above, p. 16.
The most successful year of their administration was from March, 1917, to March, 1918, when the largest numbers were housed, and at the end of 1917 the position was considered satisfactory as few difficulties arose in management and rents were rarely in arrears. The fact that it was impossible to keep the hostels full, however, caused them to be run at a considerable total loss. Thus the St. George's hostel for boys, which showed a profit up to March, 1918, showed a deficit in the following nine months owing to the Arsenal policy of replacing boys with women and girls, while by February, 1919, two hostels run by the Y.M.C.A. had losses of £4,066, and two others directly controlled by the Arsenal lost £6,282 and £9,817 respectively. These last two hostels with one or two others were still open in the spring of 1919 when they were being run at a loss which reached some £302 per week on the men's and £218 on the women's, while roughly a third only of the women and a half of the men were employed at the Arsenal. By June the staff which administered the hostels had been transferred to the Ministry of Labour; one hostel was closed and it was arranged that the Chief Superintendent of Ordnance Factories should retain the others only so long as they were required by the Arsenal.

(c) The Post-Armistice Position.

The cessation of hostilities made little difference to the demand for huts, which remained full throughout 1919, but after the Armistice the better type of tenants tended to move away as they found work elsewhere, leaving a very rough element in possession. Owing to complaints of cold and damp an abatement of 2s. 6d. a week as coal allowance was allowed for the first three months of 1919. In spite of this concession, in February, 1919, a rent strike occurred which threatened to be serious. An organisation known as the Government Hutments Protection League was formed to conduct a campaign against the administration of the estates, and in the first week of March the number of those refusing rent was 414 against 1,049 who paid. Mis-statements were made in the press and rioting and demonstrations occurred, chiefly with a view to terrorising the rent-paying householders, who formed the majority, into joining the strike. In most cases refusals to pay were due to pressure from strike-leaders, as in the case of the troubled housewife who dared not pay "because the League of Nations told her not to," while sometimes actual fear of ill-treatment by the more lawless section prevented compliance. A statement from one of the non-strikers showed that the leaders were chiefly non-Arsenal men or unemployed; they demanded a 5s. reduction in rent, but there appeared to be no real ground for this step, as a long waiting list of applicants for vacant huts were prepared to pay the current rates. At the end of March the temporary reduction of 2s. 6d. was made permanent and the strike collapsed.

In 1919–20 the management passed from the Chief Superintendent direct to the Ministry, but the system was not satisfactory. Some of the estates were taken over by the London County Council, and efforts were made to relinquish state-ownership of the remainder.
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HISTORY OF THE MINISTRY OF MUNITIONS

VOLUME VI

MAN POWER AND DILUTION

PART I

RELEASE OF MUNITION WORKERS
FOR MILITARY SERVICE, 1916–17
Volume VI
MAN POWER AND DILUTION

PART I
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CHAPTER I.
THE SITUATION, AUTUMN, 1916.

I. Introductory.

In the autumn of 1916 Great Britain reached a critical moment in the development of her fighting power. Hitherto the Departments of State had given their attention to the extension or maintenance of the various components of military strength, for which they were severally responsible, without much reference to the effects of their action on one another. The manufacture of munitions and military equipment, naval and mercantile construction, the output of coal, the working of the railways and docks, the supply of gas and electricity, the export trade, the production and distribution of food and other necessaries, all competed with each other to some extent and especially with the Army for the manhood of the country.

The problem of co-ordinating these diverse lines of activity for a supreme military effort would have been difficult, even if all contingencies could have been ruled out of account. But the problem was in no sense static. Apart from political developments, and new measures required to counter a change in the strategy or tactics of the enemy, the programmes of the Admiralty and the Ministry of Munitions needed many months to mature, and the co-ordination of national effort was still far from complete.

But the problem contained another factor, compared with which the co-ordination of military and economic programmes was relatively simple; yet, unless it was dealt with successfully, schemes, however well balanced, must come to nothing. For the successful prosecution of the war it was imperative to retain among the people the spirit of determination, cheerful endurance of inconvenience, freedom from suspicion and fault-finding, willingness to persevere in hard work. On the outbreak of war, and even at critical moments in its course, it is not difficult to awaken popular enthusiasm and obtain decisions which call for very great sacrifices; but in a protracted struggle the goodwill of the people cannot be retained unless the action of the Government is approved as reasonable not merely in principle but in detail. Confusion in administration and the appearance of arbitrary action soon undermine confidence, produce irritation, and arouse a suspicious temper, which is fatal to sustained effort, even if it does not end in an explosion of feeling.

In so far as compulsory powers were proved to be necessary for carrying on the war the people were ready to grant them to the Government, but in the exercise of such powers they required above everything else equality of treatment. No doubt the popular notion
of equal treatment is profoundly modified by the exigencies of modern warfare; the demand for equal sacrifices from all is quite impracticable. But, whatever limitations the various requirements of the State may impose upon the application of a simple rule, public opinion is insistent in demanding even-handed justice within those limitations.

The difficulties of administration under such conditions were much increased owing to the immense complexity of the problem and the rapid variation of its factors, and decisions affecting all that a man possessed were necessarily left to the discretion of a large number of individuals, whose judgments, however honest, were based on partial data, and many of whom were not practised in the execution of written instructions. Consequently, even if the policies of the Departments had been better co-ordinated than in fact they were, many anomalies could not have been avoided in their application to individuals.

The situation was further complicated because the exemption of munition workers from military service depended primarily on their employers and was only subject to such checks as inspection and forms and schedules could provide.

In such circumstances two dangers are apt to arise. An attempt may be made to cut the knot by withdrawing all exemptions below a certain age—a simple measure, which promises at once to meet the State's most obvious need of men for the Army and to satisfy the popular desire that the young men fit for military service should all alike serve in the Field. The objection to such a solution is the fact that the more complex any organisation is (and there is none more complex than a great industrial state mobilised for war) the more the operation of the whole is liable to be retarded by the unequal functioning of the parts; a measure, therefore, which impairs the efficiency of the limiting factors instead of using the surplus energy of the remainder, breaks down as soon as the effects of applying it are realised. On the other hand delay in dealing with grievances when large bodies of men are irritable and suspicious may lead to a situation in which expedients must be hurriedly devised and a bargain struck without proper consideration of its consequences. Thus the difficulty is only postponed and its solution at a later date may be gravely embarrassed.

In dealing with man power the short cut is the longest way to the end. Although history does not repeat itself, the following narrative may be of service, if it proves that only through a thorough understanding in detail of the military, economic and psychological problems involved in a war of attrition can an adequate man-power scheme be well and truly laid.

II. The Establishment of the Man Power Distribution Board.

On 2 August, 1916, Mr. Walter Long's Cabinet Conference on exemptions agreed to report to the War Committee that in their opinion it was desirable to set up a committee of three persons with full and final power to determine the distribution of man-power in
this country.\textsuperscript{1} On the same day Mr. Lloyd George circulated for the consideration of the Cabinet a memorandum drawn up by the Adjutant-General in support of this proposal. The Departments of State, he said, were competing against each other to obtain and retain men for their own purposes. Such competition not only dissipated energy, but made it impossible for him to forecast accurately the number of men available for drafts, since his calculations depended on factors over which the War Office had no control. He therefore proposed that a Board should be established, independent alike of each of the Departments concerned, with the power of final and absolute decision as to the allocation of men available under the Military Service Acts. He suggested that the Board should consist of a chairman and two members, one with experience in engineering, the other with experience in finance. It should be empowered to decide all questions concerning man-power distribution, and to regulate the numbers of men retained in civil works, in munition factories, mines, etc., through inspection boards directly responsible to itself. Further, the Board would require to be consulted in connection with any large programme, for example, a new gun programme. In such a case the Board would be able to express a reasoned opinion of the programme in terms of man-power, and to decide whether that power was available or not. The Board would thus relieve the Recruiting Department of the War Office of questions relating to exemptions, the reservation of occupations, and the provision of labour for the Ministry of Munitions. Such questions did not properly belong to the War Office, which had been forced by circumstances to deal with them; rather they should be decided by an organisation possessing full powers and able to take a detached view of the needs of the Departments concerned.

The Ministry of Munitions did not welcome this proposal to establish what was in effect a new Department with absolute control over the supply of labour. On 4 August, Mr. Montagu pointed out to the War Committee that power to regulate the numbers of men retained in civil work, in munition factories and in mines would require new and controversial legislation. For such regulation meant industrial compulsion. The Munitions of War Act went as far as it was probably safe to go in the organisation and the compulsion of labour. The Ministry's relations with Labour were then, he urged, very satisfactory, and it would be a fatal error to undertake legislation certain to antagonise those whose co-operation was essential.

Moreover, any interference between the Ministry and its supply of labour must diminish the output of munitions. Experience had proved that it was of no use to give orders and wait for them to be fulfilled. Manufacture must be chased from the raw material to the finished product; and the supply of labour must be controlled no less than the supply of materials and components. The Ministry had taken a year to build up an organisation for dealing with labour, verifying the

\textsuperscript{1} Vol. IV, Part III, Chap. III, Sect. X. The writer of this Part is much indebted to a study of the documents relating to the Man-Power Board by Miss D. Etlinger. (Hist. Rec./H./300/3).
demand and allocating the supply, training unskilled workers and finding skilled men in the Army who should be released, enforcing dilution, and as dilution proceeded transferring men from one factory to another. If a new Department were set up, it must cover the same ground. It would encounter the same difficulties, and face afresh the old controversies. It must find new men to do the work, though where they could be found no one could tell. Such being the case, was it probable that the new machinery would get to work quickly without friction or complication or overlapping and would it not hazard the success of what had already been done?

On the other hand, Mr. Montagu agreed that some speedy method of settling disputes between Departments should be provided. Disputes did arise; but either the controversy dragged on, and each party made the best of its position, or else the War Committee was asked to adjudicate when it had time. But the War Committee was not constituted for this purpose and had not time to act speedily as a court of appeal between disputing Departments. He suggested, therefore, that one member of the War Committee, connected neither with the War Office, the Admiralty, the Ministry of Munitions, nor the Board of Trade, should be chosen by the Prime Minister for the purpose of settling on behalf of the War Committee, if necessary after consultation with them, these interdepartmental disputes on labour, having taken into consideration the general labour situation and in particular the question whether the Department appealing to him was making the best use of the labour it already possessed.

On 5 August the War Committee had the Adjutant-General's proposal before them, and decided that the question should be discussed, in the first instance, by a special committee, with Lord Derby as chairman, charged with the duty of drafting terms of reference for their consideration. On 15 August Lord Derby forwarded the terms agreed upon by this committee, and on 22 August the War Committee approved the establishment of a Man-Power Distribution Board and accepted the proposed terms of reference which were as follows:

(1) To determine all questions arising between Government Departments relating to the allocation or economic utilisation of man-power for the purpose of the successful prosecution of the war, and, in order to give effect to its determination, to direct the Government Departments concerned to create the machinery necessary to co-ordinate their activities in regard to the distribution or utilisation of men and women.

(2) Further, a proposal put forward by any Government Department requiring any important demand for more man-power shall be referred to the Board, which will decide on the feasibility of the proposal from that standpoint.

1 The other members of this committee were Dr. Addison, the Adjutant-General, Sir H. Llewellyn Smith, Sir W. Graham Greene and Sir E. Troup.
(3) The Board to have power to call for any evidence it thinks necessary, and to direct Departments to obtain such information as it may require.

(4) The decisions of the Board to be final, unless appealed against to the War Committee.

After the meeting the Prime Minister arranged with Mr. Chamberlain to take the chair, and Lord Midleton accepted the post of vice-chairman. The other members of the Board, whose appointment was approved by the War Committee on 22 September, were Mr. Arthur Balfour, of Sheffield, Mr. G. N. Barnes, M.P., and Mr. S. Walsh, M.P. At this meeting, after some discussion on the terms of reference, the War Committee agreed that the Man-Power Distribution Board should work, as far as possible, through existing machinery, acting, in the first instance, as a court of appeal; but it was not thought advisable to attempt then to lay down any hard-and-fast rules. The War Committee considered that the best plan would be for the Board to get to work as soon as possible, and that experience would probably soon suggest the direction in which any reorganisation was advisable. In the meantime it was decided that the new Board might supersede Mr. Walter Long’s Cabinet Conference on exemptions.

Mr. Chamberlain undertook to get to work at once on these lines, but he entered a caveat that at present he could not foresee what the developments of the Board would be, and that the work might possibly prove too heavy for a Cabinet Minister already charged with the responsibility of a great Office of State.

III. The Requirements of the War Office.

At a meeting of the War Committee on 12 September the Chief of the Imperial General Staff pressed the great urgency for the Man-Power Board. The recruiting outlook was the reverse of satisfactory. A very large proportion of men were in some districts being rejected as unfit for military service. Employers, both government and private, were releasing for the Army a greatly undue proportion of older men. Some Tribunals were granting a very large number of exemptions. About 400,000 men were required by 15 March, 1917, in order to keep the existing number of divisions up to strength and to provide for the authorised Royal Artillery and Royal Flying Corps expansions. The possibility of getting these men depended on factors quite outside the control of the War Office. On 12 August, 1916, the number of men known to recruiting officers to be badged or exempted on occupational grounds amounted to over 1,600,000; in addition, men temporarily, conditionally, or absolutely exempted, appeals pending, and absentees, amounted to 1,100,000; while the men exempted from the Military Service Acts (including men discharged from the service) amounted to about 500,000—in all, nearly 3,300,000 men of military age upon whom the War Office had no call. Moreover, there were in civil life nearly 250,000 rejected men, and more than 250,000 among those then under call to join for service, whom the Army would not get, and who would ultimately be added to one or other of the foregoing classes.
On 26 September the Adjutant-General gave evidence before the Man-Power Board. He had reached the end of his resources. Unless the Man-Power Board took drastic action he could not look forward to a monthly average of more than 35,000 general service men for the next three months, though large new demands had just been made upon him. The War Office was spending its time in internecine warfare with every other Department of State in order to obtain what was necessary for the defence of the State. War service badges had been issued broadcast over the country, 300,000 were known to be held by men of 30 years of age and under. Debadging was futile.

The men released were for the most part old married men with families, who were expensive to the State and useless to the Army. Others were lost owing to the period of grace allowed by the Military Service Acts. Further, the Ministry of Munitions was still issuing nearly 9,000 badges a week. Consequently many of the tribunals were refusing to administer the law. Some gave temporary exemptions because the Government did not call out the young unmarried men. Others were influenced by local feeling, especially in the country districts. Moreover, many of the Medical Boards were unsatisfactory. Some of the doctors were too old, all were overworked; in some cases the proportion of rejections was so high that the suspicion of corrupt influence could not be resisted.

As an immediate expedient the Adjutant-General suggested that the Board should issue instructions that no man should be taken into the employment of the Ministry of Munitions or persons acting under the Ministry:

(1) when he had once been debadged;
(2) when he had a claim for exemption pending before a Tribunal;
(3) when his claim for exemption had been refused by a Tribunal;
(4) if he had a temporary exemption from the Tribunal so long as his certificate was unexpired.

The majority of the men then being badged would probably fall under one or other of these heads.

But the requirements of the Army could only be met if the Man-Power Board would release the younger men, and fill their places with older men engaged in industries from which they could be spared. This would be facilitated by raising the military age to 55. If it was decided that men under 25 should join the Colours, skilled men belonging to certain trades essential for the production of munitions might be excepted, since their sudden withdrawal would probably make chaos in the works, and exemption might perhaps be extended to the only sons of widows and other similar categories; but all claims to exemption should be decided by the question whether in fact the claimant fell within one of the specified classes. As in France, the
military officer commanding a district might be responsible, with the help of the police, for satisfying himself that the claim of the man for exemption was properly put forward.\(^1\) But in any case, what was wanted was a general rule with definite exceptions, and all claims for exemption should be decided on matters of fact instead of opinion.\(^2\)

### IV. The Requirements of the Ministry of Munitions.

On 25 September the Ministry of Munitions presented their case to the Board in a letter\(^3\) written by Dr. Addison to Mr. Chamberlain. He pointed out that the munitions programmes were being continually revised; every revision showed a substantial increase, especially in the demand for heavy guns and ammunition; the demands were almost always of the most urgent kind and necessitated work at the highest pressure against time. Simultaneously, the need of men for the Army was draining the man-power of the country. Every day it became more urgent that the utmost economy should everywhere be observed in the use of labour. The Ministry therefore, suggested that the Board should adopt the following principles.

(1) Each Department should be required to create machinery of a kind satisfactory to the Board, by which to secure, as far as possible, the most economical and useful employment in regard to its duties of the man-power already at its disposal.

The principle, applied to the Ministry of Munitions, that no skilled men should be employed on work which could be done by unskilled labour, male or female, and no man fit for active service should be employed on munitions work, whose place could be filled, without reduction of output, by others not eligible for military service—this principle should be applied throughout the Army, the Navy, and the industries of the country. Men ought not to be taken from the manufacture of munitions to the detriment of output, while men fit for active service were being used for clerical and menial services which could be performed either by soldiers not so fit, or by civilian labour, or while such men were not being released so far as possible from unessential industries or works engaged wholly or partly on Admiralty contracts.

(2) When application was made to a particular Department for men for the Army, regard should be had, not simply to the conflicting claims of the Army and the Department in question, but to the sources generally from which the men required could best be spared.

(3) The Board should have regard not only to present requirements, but to the requirements necessary to meet the lately augmented munitions programme.

At the moment the Ministry were short of 23,000 skilled men, and 12,500 semi-skilled or unskilled men. But their gravest problem was how to meet the enormous requirements of the new programme, and at the same time release for active service those for whom conceivably some substitutes might be found. Large numbers of additional guns

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1 Evidence given before Man Power Distribution Board, p. 38
2 Ibid., p. 49
3 M.W. 143944/3.
and howitzers were needed, and the recent fighting had increased the demand for repairs beyond anything previously anticipated by the War Office. For the heavy artillery the daily ration per gun had been augmented and in some cases doubled, and the Ministry was now asked to provide an additional 300,000 rounds a week for the field guns. In other directions also the demand was rapidly expanding. The Ministry had just been charged with the supply of motor transport. What the new programme would amount to in terms of labour and machinery could not yet be estimated; but it would probably require the mobilisation of all those industries which were in any way capable of doing this work, as well as the provision of much costly and delicate machinery. Moreover, the Ministry had lately received a notification that several thousands of the most highly skilled workmen were needed for the manufacture of engines for aircraft.

In laying plans to provide these increases over the already prodigious programme, great demands must be made upon raw materials of the most diverse kinds. 40,000 additional men would be required for the coal mines and coke-ovens. Arrangements were well advanced to bring into blast many new blast-furnaces and to restore old ones, in order to obtain an additional 37,000 tons of pig-iron weekly. Extensions to steel works had been sanctioned, which would in due course produce 50,000 tons of steel a week. In the meantime, enormous purchases of steel and pig-iron had to be made in America. Similarly the new programme required an additional 1,100 tons of high explosive weekly, and 450 tons of propellant. To provide this a great factory had been started at Avonmouth, and many large extensions were necessary at Gretna, Queen’s Ferry, and elsewhere. For all these various purposes the Ministry would require not less than 100,000 more men in the near future.

Dr. Addison then passed to the subject of badges. There had been much loose and ill-informed talk about the issue of badges to men of military age. The total number of badges held on 19 September by such men was 880,176. Of these he estimated that nearly half were employed on work for the Admiralty or the War Office. He proceeded to draw attention to the precautions which had been adopted since the beginning of 1916 to secure that badges were not issued to those not entitled to them. No doubt in dealing with such large numbers many errors had been made, but since April, 1916, firms had been required to keep a register of their male employees over the age of sixteen, the badge certificate, which conferred exemption from the Military Service Acts, was made out to the individual man to whom it was issued, a scrutiny of badges was being carried out systematically, and so far more than 9,000 establishments had been inspected and 30,000 exemptions withdrawn. Greater progress would be made in releasing men for the Army if a satisfactory scheme could be worked out for the transfer of men not fit for general service to a Reserve from which the Ministry could draw the necessary substitutes. But although a number of men, commonly described as unskilled, had been badged, it must not be assumed that they could readily be replaced. In blast-furnaces, for example, and steel works, young able-bodied men were essential.
On 27 September the Board examined Dr. Addison on the pro-
grammes of the Ministry, and their schemes for the supply of labour, dilution, exemption, and substitution. He pointed out\(^1\) that Mr. Long's pledge that a man transferred to the Reserve should be free to go where he liked, work where he liked, or not work at all,\(^2\) had hitherto stood in the way of any substitution scheme of use to the Ministry. So acute had the difficulty become that the withdrawal of badges had recently been stopped altogether.\(^3\) But a solution was now in sight.\(^4\) In reply to the question\(^5\) whether he saw any reason why the Board should not recommend that no man should receive a badge certificate:—(1) whose certificate had been withdrawn by the Ministry; (2) whose case was pending before a tribunal; (3) whose claim had been refused by a tribunal; (4) to whom a tribunal had given temporary exemption, Dr. Addison said that he thought the first condition was right, but he could only agree with the rest, if the Ministry was enabled to reclaim the man from the Army, provided that the man was not needed by the Army in virtue of his special skill. Tribunals frequently decided cases on grounds other than the indispensability of the man for munitions work. Even if a man was not necessary to his employer, he might be required elsewhere.

V. The Requirements of the Admiralty and the Home Office (Coal Mines Department).

On 28 September, Admiral Moggridge attended to give the Man-Power Board what information it required. He explained the procedure by which the Ministry of Munitions issued badges on behalf of the Admiralty, excepting employees in H.M. dockyards and naval establishments and transports.\(^6\) Some account was also given of the steps which the Admiralty had taken to enforce dilution.\(^7\) There was a large number of young men in all the establishments connected with the Admiralty; but it was essential for the efficiency of the Navy that they should be there.\(^8\) In promoting dilution the Admiralty were doing more for themselves than anybody could do for them. They were straining every nerve not to protect any men who should be doing any other work.\(^9\) But their contracts were behind-hand; they were suffering from many industrial troubles and difficulties;\(^10\) they had recently given up a considerable number of yards entirely to merchant ship work.\(^11\) Any sweeping release of men was quite out of the question.\(^12\) It was of the first consequence that the Navy should be strong enough to protect the Army. If anything happened to the Navy, the Army was lost.\(^13\)

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\(^1\) Evidence, pp. 18, 26, 74.  
\(^3\) Evidence, pp. 27, 83.  
\(^4\) i.e., the Army Reserve Munition Workers' Scheme, see below, p. 64.  
\(^5\) Evidence, pp. 68 ff.  
\(^6\) Ibid., p. 31.  
\(^7\) Ibid., pp. 32 ff.  
\(^8\) Ibid., p. 36.  
\(^9\) Ibid., p. 37.  
\(^10\) Ibid., p. 42.  
\(^11\) Ibid., p. 38.  
\(^12\) Ibid., p. 42.  
\(^13\) Ibid., p. 41.
The Chairman then submitted the recommendations which the Board were considering.¹ He pointed out that many tribunals were refusing to send men to the Colours, because they found that a man to whom they had refused exemption was subsequently badged on behalf of some government establishment; or they complained that cases pending before them were taken out of their jurisdiction by the granting of badges, or that young unmarried men were sheltered under badges, while they were being asked to send older men with large families to active service.² Admiral Moggridge replied that the Board of Admiralty should be consulted, but so far as he could tell, they would be prepared to agree not to badge a man whose certificate had been withdrawn.³ The rule should, however, apply to all Departments alike; and there was the practical difficulty that the man might have two months’ grace before the recruiting officer could get hold of him. With respect to the proposal that no man should be badged whose case was pending before a tribunal, he pointed out that the badging organisation was very much behind in its work. Applications for badges made some time ago might still be waiting for departmental or inspectors’ reports, and in the meantime the cases might have been taken to the tribunals. This rule would involve thousands of men who should be badged but were not owing to office delay.⁴ He agreed that a man to whom a tribunal had refused exemption should not be badged; and a man who had obtained a temporary exemption, should only be badged if he had been exempted with a view to getting a badge.⁵

On 26 September, Sir R. Redmayne gave evidence concerning the coal mines. The War Committee had decided, on 7 June, that no more miners should be recruited, but all miners already enlisted and allotted to home service should be released for work in the mines, and also miners in training for foreign service, subject to the consideration of the numbers immediately required for drafts. 288,000 miners had joined the Army, and there was a net deficiency of 165,000, as compared with 30 July, 1914.⁶ The shortage of hewers and hauliers was most serious. They had enlisted most freely, and were most difficult to replace. The stoppage of exports to Russia and enemy countries was counterbalanced by the requirements of France and Italy, which had doubled. The Navy was taking six times its normal quantity. The home demand had not diminished. It was estimated, after making the fullest allowance for more regular working and the return of miners from the Army, that the country would be six million tons short on the current year, and this deficiency could not be made good save by economy in use.⁷ Consumption could only be controlled by setting up administrative machinery, which would entail a vast amount of clerical work. It was quite clear, Sir R. Redmayne concluded, that the mines could not spare more men; the committees dealing with the export and distribution of coal were sometimes at their wits’ end to find coal.

¹ See below, p. 11. ³ Ibid., p. 46. ⁵ Ibid., p. 49. ⁷ Ibid., p. 89.
² Evidence, p. 43. ⁴ Ibid., pp. 47, 48. ⁶ Ibid., p. 82.
VI. The Memorandum of the Man-Power Distribution Board, 29 September, 1916.

After hearing the evidence of the Departments mentioned above the Man-Power Board drew up a memorandum on 29 September, which was submitted to the War Committee for their approval.1

The Man-Power Distribution Board have heard evidence tendered on behalf of the Board of Admiralty, the Army Council, the Ministry of Munitions, and certain other Government Departments.

It has been proved to the Board that fresh supplies of men are urgently needed for the Armies and Munition Factories in order to maintain our forces in the Field at the numbers already fixed for them, and at the same time to maintain the supply of munitions essential for their equipment and proper utilisation.

The Board reserve for further consideration the questions of agricultural labour and of the excepted and certified occupations.

The present report deals only with other industrial and non-manual workers. The Board direct:

1. That no badge certificates shall be issued to men:
   
   (a) who have already been de-certificated by a Government Department;
   
   (b) whose cases are pending before Tribunals;
   
   (c) to whom Tribunals have refused exemption;
   
   (d) to whom Tribunals have given temporary exemptions;
   
   (e) already under notice to join the Army.

2. That where a certificate has been withdrawn the date of withdrawal and the number of the certificate should be endorsed on the man’s Registration Card.

3. That all men made available for the Army in pursuance of these decisions should be enrolled as soon as the law permits.

4. As there is urgent need for highly skilled men of certain trades, it shall be open to the Ministry of Munitions to claim the services of men of these trades included in the above order. On receipt of such a claim from the Ministry of Munitions the Military Authorities shall at once transfer the men claimed to a special class of skilled men, unless they are immediately required for service in an equally skilled capacity in the Army, provided always that the men so transferred undertake, while in this special class, the obligation already voluntarily undertaken by the War Munition Volunteers to work under civilian conditions in whatever place the Ministry requires their services.

5. The Board draw the attention of all Tribunals to these decisions. They desire to impress on Tribunals that they should:
   
   (a) continue to give the most careful consideration in every case before granting exemptions,

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1 The text is given as it was finally approved by the War Committee. No changes of substance were made.

(5024)
(b) avoid extending (except in cases of urgent necessity) the existing temporary exemptions, of which there are at present nearly 400,000 in existence, and

c) expedite the settlement of outstanding applications and the hearing of appeals, of which 200,000 are pending.

6. The Board observe that the process of dilution has been very unequally carried out in different districts and in different works. They have directed the special attention of the Authorities concerned to this subject. The Board regard the carrying forward of this process of dilution as of the utmost importance. It is the only method by which an extension of the age for compulsory service can be avoided. The Board have requested the Board of Trade and the Labour Adviser to His Majesty's Government to confer with employers and Trade Union leaders as to the extension of the practice of dilution to firms engaged wholly or partially on private work, so as to set free skilled men thus engaged for munitions work. It is essential that a large part of the labour now engaged on private work should be diverted to Government orders or released for the Army.

7. The Board have under consideration further steps to secure the release of young men and for the better organisation and extended use of women and men over military age.

8. The Board have also under consideration further measures for the release of men of military age in Government Departments.

This memorandum was considered and approved by the War Committee on 3 October. A lengthy discussion took place on the wording of section 4; but it was agreed that no skilled man taken by the Army should be employed on work requiring a lower degree of skill than that which he possessed, or on a different kind of work from that in which he was skilled.

The main object of the directions given by the Man-Power Board was to expedite the work of the tribunals, by removing their grievance that Government Departments were over-riding their jurisdiction and protecting men to whom they had refused exemption. The solution adopted was open to two objections. First, it involved a temporary, and possibly a permanent, loss of many skilled men to munitions work. The procedure of the Ministry in issuing badges was slow, owing to the precautions taken and the necessity for consulting other Departments and obtaining inspector's reports. Consequently, many employers made applications to the tribunals and the Ministry concurrently. Moreover, error, carelessness, ignorance, and the constant movement of men from one establishment to another resulted in the omission to obtain valid exemption for many men entitled to it. Secondly, although section 4 was not inconsistent with the Prime Minister's pledge that skilled men with special aptitude should not be recruited for general service, the fact remained that they were handed over to the Military authorities, with whom it rested to what use they should be put. This arrangement was likely to lead to misunderstanding,
and in an electric atmosphere of suspicion and perplexity might cause an explosion. This danger would have been diminished if the Prime Minister's pledge had been embodied in section 4, and if it had been explicitly provided that all skilled men subject to enlistment under the order of the Board should be transferred to a special Reserve, from which the Ministry would be entitled to claim them, unless they were immediately required for service in an equally skilled capacity in the Army.¹

¹On 30 September the Man-Power Board made their first report to the War Committee. They stated that in their opinion (1) no addition should be made to the existing programme without consulting the Adjutant-General to ascertain the effect on recruiting; (2) the building of new factories, subject to particular exceptions, should not be sanctioned, since they could not be expected to produce before the end of the war; (3) the Allies should be informed that further demands for supplies might entail a reduction of Britain's military effort. The War Committee considered these recommendations on 5 October. The Minister of Munitions explained that the new requirements of the War Office could only be satisfied if a large number of new factories were built, most of which would come into bearing early in 1917. Consent was therefore refused to the proposition that the building of new factories should not be sanctioned. As regards the other proposals it was decided that all large orders, before being placed, should be referred to the Adjutant-General, who should report to the Secretary of State for War on any demand which in his opinion might dislocate his calculations.
CHAPTER II.

THE TRADE CARD AGREEMENT.

I. The Prime Minister's Pledge to the Skilled Men, 28 September, 1916.

Great as the difficulties were in adjusting the claims of the Departments on the man-power of the country, they were surpassed by the difficulty of combining the most economical employment for the common end of individuals varying in skill, experience, and physique with the general demand for equality of treatment. The pressing need for men skilled in munitions work fostered in the minds of the craft unions a claim to privilege which was resented as arrogant by those on whom the hardships of service in the trenches fell. Expressions such as "the waste of skilled men in the infantry" insensibly favoured pretensions which only a high sense of duty could have corrected. But moral enthusiasm can hardly be maintained throughout a war of attrition. Losses and failures and long periods of apparent inaction stimulate the spirit of fault-finding. Inequalities of suffering accentuate the jealousies and divisions of individuals and classes. Change of circumstances and the blunders inseparable from complex and novel experiments in administration give rise to charges of broken pledges. To maintain at such a time the morale of the home front, not only must the policy of the Government be clear-cut, adapted to the facts, and plain to the people, and the application of that policy to the individual be certain and free from all suspicion of unfairness, but above all is it necessary to appeal to the motives which ought to regulate men's conduct, notwithstanding appearances and the advantages which an appeal to popular or sectional prejudices may secure. At home no maxim is more pernicious than "divide et impera."

The operation of the Military Service Acts and the withdrawal of badge certificates, however carefully they had been administered, could hardly have avoided occasions of grievance to the trade unions, in view of the promises which had been made to them concerning compulsory service and dilution. But the administrative machinery of the War Office and the Ministry of Munitions, being improvised and working at intense pressure, was defective, and showed want of co-ordination not only between the two Departments but between their local offices and headquarters. Frequent complaints were made to Whitehall in the course of the summer of 1916, and on 27 September, Mr. Montagu, then Minister of Munitions, received a deputation of the Amalgamated Society of Engineers.¹

¹ Hist. Rec./R./320/12.
The society complained that although the Minister had stated in the House of Commons that the national factories were short of skilled labour, their skilled men were being taken into the Army. By skilled men they meant turners, fitters or machine men who had served their time in the trade. From some their badges and certificates had been withdrawn. Others, in the railway shops, were refused badges, neither could they obtain leaving certificates to go on to munitions work; even if they had enrolled as War Munition Volunteers, they were not transferred. Yet they were being released for the Army. In one case it was alleged that the military authority had torn up a man’s certificate and thrown it into the fire. The society had some 600 special cases of men who had been taken into the Army contrary to the pledges of the Government, if not illegally. These had been sent to the Labour Advisory Committee set up by the War Office under Mr. Wardle as Chairman; but so far little satisfaction had been obtained. As a rule they were told that since the man was already in the Army nothing could be done. This was causing wide-spread irritation and discontent which would manifest itself in various ways.

The representatives of the Ministry replied that such recruiting was never intentionally permitted, since the Ministry was absolutely dependent on the skilled men for the fulfilment of their programme. Where mistakes had occurred the reason suggested was that the holders of badge certificates were unaware of the right of exemption which they possessed, and the means by which they could secure it. It was agreed that these should be more clearly and widely known. The Minister promised to take up the question of the railway shops with the Board of Trade, and to investigate each of the 600 cases of wrongful enlistment alleged by the society; but he reminded them that skilled men were needed in the Army as artificers, to which the society replied that it would save them much trouble if the Government would ask them to co-operate in finding the men required instead of taking them surreptitiously and very much against their wills.

On the following day a large deputation representing the craft unions laid their grievances before the Prime Minister. In his reply Mr. Asquith said:

"There are two governing principles, as Mr. Montagu has pointed out, which have been enunciated and recognised by responsible Ministers, which, though they have not always been carried out in practice, ought to be carried out. The first one—and about this I feel as strongly as any of you here—is that skilled men (by which I mean men who from natural ability or training, or a combination of both, have special aptitude for particular and indispensable kinds of national work here at home) ought not to be recruited for general service. As a matter of fact that would be an illustration, and a most deplorable illustration, of the kind of waste to which I was referring a moment ago. About that we are all agreed, but you will also agree—it is not a qualification at all of the general principle, I believe it is only an application of it—that there are some forms of military work for which skilled men are required. They are absolutely essential
to our artillery and for our engineering work, and for what I may call the technical branches of an Army in the field. I am sure that you would not grudge, and that you do not grudge on behalf of your unions and those whom you represent, to the Army that it should draw upon you to the necessary extent for the men who are needed, and who are qualified for that special form of military work. (No.) I am sure we are all agreed about that so far . . . .

"That is what I call the first principle. Then the second is this: that we are to make the most economical use—and I am not using the word economical in the sense of parsimonious, but in the sense of the best adaptation of means to ends—of our best national resources in the way of personnel for the purpose of the War—and the War for the moment is our supreme and governing preoccupation—we must apply, as we have applied and are applying, the principle of dilution; and I will say something about its limitations in a moment. Now what does dilution mean? Dilution means not that you should get rid of your skilled men and send them to fight in the Army, which many other people can do quite as well—it does not mean that (Hear, Hear); it means that you should get rid of your unskilled men, men who are not absolutely essential and indispensable for the technical purposes of their trade, and, if of military age, as far as possible substitutes are found for them. It is a mistake to suppose that dilution in any sense is understood by those responsible for the carrying on of any of these things to mean the substitution for skilled men who can do skilled work of persons who can only do that work in a bungling, inefficient, and inadequate way. It was never intended, but so far as skilled men are concerned, as my friends Mr. Montagu and Mr. Henderson have said, dilution means spreading. It does not mean wasting (Hear, Hear); it does not mean annihilation or removal; but it means spreading your skilled resources over as wide a surface and in as many channels as they can be effectively employed; and so far as those who are not specially qualified are concerned, it means undoubtedly the substitution for men of military age of others, both men and women and young persons, who can do the unskilled work or can be trained to do it in a very short time, and who can quite efficiently take the place of those who are better employed at the Front. I believe we are agreed about that . . . .

"The whole difficulty arises of course in the practical application of these principles to particular cases. Mr. Brownlie, in particular, has brought forward some cases in which he alleges the military authorities have violated, or at any rate ignored, one or other of these principles. If any such cases can be substantiated, they ought to be remedied and set right. I think from the practical point of view great good will come—I hope so and believe so—from the establishment of the Man-Power Board, which is dealing not indeed with individual cases, but dealing with what I may call the subordinate and derivative rules governing the
problems which follow from the large general principles with which we are all agreed. And I am sure Mr. Henderson is quite right in saying that there ought to be a much closer co-ordination and simplification of the machinery. But if, as I believe is the case, you and my colleagues are agreed on the general principles which ought to be applied now that we have got this body, which is not merely advisory but which has executive authority, and I am satisfied is thoroughly possessed of and guided by these principles, I am sure that the difficulties and troubles which have arisen in the past and which I admit are very real, will in the future be mitigated and finally removed."

II. Mr. Henderson’s Suggestions for Improving the Administration of Exemptions.

After issuing their directions on 3 October, the Man-Power Board addressed themselves to the problem of improving the administration of exemptions. On 4 October they received a letter1 from the office of the Labour Adviser stating that Mr. Henderson was in entire agreement with the general principles of their memorandum, but in his view the successful working out of these principles must depend on the establishment of thoroughly efficient machinery to control the operations of badging and debadging. This was a matter to which, in view of its effect on labour opinion, he had necessarily had to give very close attention. Want of co-ordination or irregularity in these operations not only led to loss and waste in the distribution of man power, but, appearing as it did in the eyes of organised Labour, partly as a symptom of inefficiency in the central Government and partly in the shape of personal hardship to individuals, it tended to create a spirit not always compatible with the most effective and wholehearted prosecution of the industries required for the service of the war.

On this subject Mr. Henderson sent copies of two memoranda which he had recently submitted to the Ministry of Munitions. With regard to details, he was not prepared to express a definite opinion, though he saw considerable advantage in a decentralised system, provided that there was complete co-ordination and therefore concentration of responsibility in London. The trade unions should be able to negotiate directly with a single Department possessing undivided responsibility. These memoranda, dated 2 and 9 September respectively, were written in response to a request2 from Mr. Montagu on 31 August for the views of the Labour Adviser on the extension of dilution to private work and the importation of Irish and alien labour, new departures which, in the Minister’s opinion, his prospective demands for labour, both skilled and unskilled, would render necessary.

In reply, Mr. Henderson said that he believed that the question of badging and de-badging was at the root of the problem. Much of the resentment against the introduction of foreign labour was due to the fact, within every workman’s knowledge, that skilled Englishmen

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1 M.N.S.B./232/4.  
2 M.W. 139902/2.
were daily being withdrawn from work of national importance for service in the Army. Nor could the assistance of the trade unions be obtained for the extension of dilution until the recruiting of skilled labour was stopped. The process of issuing badges was too slow. The provision that application for badges might only be made by the employer was open to serious objection. The trade unions asserted that many of their members were serving in the Army because their employers refused to apply for badges on their behalf. When a man left, his employer sometimes withdrew not only his badge, but his certificate. These defects should be amended. Workmen of the following classes employed on munitions work ought to be protected by badge certificates: (a) tradesmen (i.e. men who had served the usual apprenticeship to their trade), (b) semi-skilled men (i.e. men who were not tradesmen, but had qualified in a particular branch, e.g. machine-men) who were engaged at their branch of their trade prior to the outbreak of war, (c) unskilled men (i.e. those who were engaged in purely labouring work) in so far as it was not practicable to substitute female labour. De-badging should be confined to workmen other than these, unless a man refused to enrol as a War Munition Volunteer or to go where he was required. Men of military age who had taken up munitions work since the outbreak of war without any previous experience should be released for military service, their places being taken by female labour so far as practicable.

On 13 October, Mr. Henderson explained to the Board the kind of administrative machinery which he thought desirable. A single Department should have full responsibility for the exemption of the men required for munitions and other industries of national importance. In dealing with this question it should have no departmental interests of its own to consider and protect. The Man-Power Board was, in his opinion, best suited to undertake this responsibility; and, if desired, he would be happy to place his office and staff at the service of the Board to carry out their policy.

Exemption should be based on the Trade Card Scheme proposed by Mr. Wardle’s committee and approved by the Director of Recruiting. A trade card would be issued to every man engaged in a certified occupation in engineering, shipbuilding, or the metal trades, who was prepared to enrol as a War Munition Volunteer. Great importance was attached to this principle. If a man was exempted from military service he ought to be willing to serve the interests of the nation as a Munition Volunteer. Arrangements would be made for authenticating the bona fides of every applicant, either through his trade union or, if he was not a member of a union, by the examination of his apprenticeship papers. This scheme should be applied in the first instance to men not yet badged; it could be extended subsequently to badged men, if a revision of badges should prove necessary.

Mr. Henderson then suggested that local committees should be formed consisting of six persons, two representing the employers, two the skilled workmen and one the unskilled workmen, with the

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1 Evidence before the Man-Power Distribution Board, p. 6.
2 Ibid., pp. 6, 7.
Mayor or some person of local standing as chairman. These committees would exercise, under the direction of the Man-Power Board and any Department operating on its behalf, such executive and advisory powers as might be entrusted to them. Their principal duties would be to meet the Army’s demand for craftsmen and to arrange for the release of men for general service who were found to be no longer required for munitions work. They might also undertake the carrying out of the scheme of substitution recently set on foot by the War Office. Representatives of the Admiralty, War Office, and Ministry of Munitions would be entitled to appear before the local committees and make representations on behalf of their Departments, which should have the right of appeal to the Man-Power Board. But these Departments should not be represented, directly on the local committees.¹ So far as the local tribunals were concerned, they should be instructed to hand over to the man-power committee all cases in which it was proved that the man was a skilled man.² Skilled men must be protected against the decisions of the tribunals, whose business under the Military Service Act was to get men for the Army. In short, the machinery for regulating the exemption of men engaged on work of national importance should be co-ordinated, lifted out of the Departments which had an interest in getting the men, and put under an authority whose sole object was to secure the best service for the nation.³


On 11 October, Sir Mortimer Durand, Chairman of the Badge Committee,⁴ gave the Man-Power Board his impressions of the manner in which the problem had been handled by the Ministry of Munitions. Mr. Long, in a letter of 5 May,⁵ had suggested that the Committee should endeavour to control the principles upon which badges were issued and withdrawn. But this had proved impossible. The Committee was only advisory; it exercised no control whatever.⁶ The Ministry acted without consulting the Committee; and the Committee was precluded from discussing any large questions of policy, because the representatives of the Admiralty and the Ministry upon it declared that such questions were beyond their powers.⁷ Moreover, the conflict of interests represented on the Committee prevented it from arriving at anything at all.⁸

In his opinion, Sir M. Durand said there should be a definite ruling that all men under 25 were primarily required for the Army.⁹ No doubt exception must be made in favour of certain highly skilled men. But they should be reclaimed for civil life from the Army. As it was, the Munitions Department had got the men; they were, so to speak, inside the fort, and the War Office had to get them out. From all he could hear it seemed that the really indispensable skilled men would

¹ Evidence, p. 16. ⁴ See Vol. IV, Part III, Chap. III, Sects. VI, X.
³ Ibid., p. 18.
be a very small proportion of the million men of military age then exempted by badges.\(^1\) How the indispensable men should be protected it was very difficult to say; but he would decentralise as much as possible, put far more power into the hands of inspectors, and let them decide on the spot, subject to a short direction from the Man-Power Board, stating very exactly and succinctly the kind of consideration which should be given to claims on account of special skill.\(^2\)

Finally, he pointed out that badges were being issued much more rapidly than withdrawn. The Ministry of Munitions was still pouring out badges at the rate of 1,000 to 1,500 a day.\(^3\) In a reply to the question whether he saw any reason why the Board should not direct the cessation of badging, pending further steps they might think necessary, he said that *prima facie* there was no objection, and he should like to see it, but he was not prepared to say it would be possible, because the Ministry considered that they wanted men very badly indeed.\(^4\)

On 12 October, the Man-Power Board sent their second report to the War Committee.

"The Board ask the approval of the War Committee to a direction that no more badge certificates be issued pending the further consideration by the Board of the question of de-badging and of the certified and reserved occupations.

"They are informed by the Chairman of the Badge Committee that badges are now being issued at the rate of 1,000 to 1,500 a day (this includes unskilled as well as skilled men). The immediate effect of this on recruiting is obvious. But still more serious is the effect which this extensive badging may have in prejudicing the working of any new measures which may hereafter be found necessary, for experience shows that when once a man has been badged it is extremely difficult to get him unbadged, or, if unbadged, to secure him for the Army."

This report was not considered by the War Committee until 17 October. But before the meeting Mr. Montagu saw the Board and urged\(^5\) that if badging was suspended it would be difficult to carry out the Prime Minister's pledge to the trade unions that no skilled man should be taken into the Army except in his skilled capacity. The A.S.E, (Amalgamated Society of Engineers) had already told the Ministry that they would not work dilution any more, because the Board's directions of 3 October were a breach of the Prime Minister's pledge. Although this charge was not strictly true, it was not possible to assure the engineers that their men would not be retained in the Army for general service.\(^6\) Moreover, it was essential to continue to issue badges and certificates to badged men who changed their employment, and to renew temporary certificates on expiry where necessary to maintain the output of munitions.\(^7\) The Minister would, however,

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1 Evidence, p. 9.
2 Ibid., pp. 11–13.
3 Ibid., p. 14.
4 Ibid.
5 Evidence, p. 7.
6 Ibid., p. 8.
7 Ibid, p. 9. A large proportion of the badges issued by the Ministry in the spring and summer of 1916 fell under one or other of these heads; consequently the figure of weekly issues on which so much stress was laid by the Ministry's critics was misleading. Allowance was not made for the constant movement of men from one establishment to another; and the badging system was not adapted to deal with this important fact.
be prepared to stop badging unskilled men if the War Office would undertake to supply substitutes for any unbadged men called up from munitions work.¹

Accordingly, at the meeting of the War Committee, Lord Midleton, who represented the Man-Power Board in the absence of Mr. Chamberlain, stated that, within a fortnight, the Board hoped to be able to arrange a scheme for dealing with de-badging and the certified and reserved occupations after consultation with the Admiralty and the Ministry of Munitions. In the meantime, as an emergency measure, he invited the approval of the War Committee to the following arrangement:

1. That the Ministry of Munitions should cease badging unskilled men under 30 years of age after 23 October for a fortnight.
2. That unskilled men who were not badged and were taken for military service from munitions work under this arrangement, during the period named, should be replaced by substitutes, as in the case of badged men, under the new substitution scheme.

The War Committee approved this temporary arrangement, and the Minister of Munitions undertook responsibility for seeing that it was carried out. On 31 October, Mr. Montagu informed the Committee that he had stopped the badging of unskilled men without delay, and the period of a fortnight was on the point of expiry. He did not desire to resume the badging of unskilled men, and would not do so, provided that the existing arrangement with the War Office as to the provision of substitutes was still observed. The Secretary of State for War agreed to the continuance of this condition, which was approved by the War Committee.

**IV. The Scheme of Local Administration proposed by the Man-Power Board.**

In the meantime, the Board proceeded with the consideration of schemes for setting up a new local administration to deal with exemptions. On 13 October, they asked the opinion of the Director of Recruiting, General Geddes. They had come to the conclusion that no extensive measure of de-badging could be carried out except by local committees of some kind. But should they be representative of the Departments concerned, or of employers and workmen with an independent chairman? General Geddes preferred the second alternative; the first would only carry on the wrangle, which went on interminably in Whitehall. But these local bodies should be under the control of the Man-Power Board, and they should be as few as possible; otherwise they would be difficult to co-ordinate.²

On 17 October, Dr. Addison was asked whether the Ministry would object to the setting up of area committees for the issue and withdrawal of badges. The Ministry and the War Office might each have a member, the Chairman being appointed by the Man-Power Board, with representatives of Labour and Employers acting as assessors. Dr. Addison

¹ Evidence, p. 9
did not think this a practical proposal. Such a body would have no responsibility for supply; nor could it know the urgency of any given contract, or the demand for labour elsewhere; it could not even go into the shops and investigate cases on the spot.1

A similar proposal, with the addition of a representative of the Admiralty, was submitted to Admiral Moggridge the following day. He did not think the Admiralty would concur with it; their programme had been definitely approved by the Cabinet, as essential for the safety of the country, and they could not deviate from it. Only the Admiralty were fit to judge what their requirements for labour were. The proposed local committees must continue to use the technical officer who had been inspecting for badging and de-badging, and they must refer to the technical departments of the Admiralty all questions relative to the state and urgency of supplies.2

On 25 October, the Man-Power Board sent to Mr. Montagu a rough draft of the following scheme, which they proposed to submit to the War Committee at an early date:3

(1) The Ministry of Munitions to continue to act as the recording Department of all badge certificates issued and withdrawn.

(2) The issuing and withdrawal of badge certificates to be done by a Divisional Officer appointed by the Man-Power Board under the instructions of a Divisional Board appointed for each of the seven Employment Exchange Divisions and under the general direction and control of the Man-Power Board.

(3) The Divisional Board to consist of a Chairman appointed by the Prime Minister; four representatives appointed by the Man-Power Board, the Admiralty, the War Office and the Ministry of Munitions respectively; a representative of Labour appointed by the Labour Adviser to H.M. Government; and a representative of local employers appointed by the Associated Chamber of Commerce.

(4) The inspectors of the Admiralty and the Ministry of Munitions to be used as far as possible, and all inspectors to report to, and be responsible to, the Divisional Boards of their respective Areas.

(5) The decision of the Divisional Board in all matters connected with the issuing and cancelling of badge certificates to be final, except that any Government Department affected shall have the right to appeal to the Man-Power Board within fourteen days of the decision of the Divisional Board.

(6) The Chairman of the Divisional Board to report to the Man-Power Board from time to time the general results of the action of his Board and to report specifically on cases where appeals are made to the Man-Power Board.

1 Evidence, pp. 19, 20.  
2 Ibid., pp. 2–7.  
3 A copy of the scheme submitted to the Admiralty was sent by Sir Graham Greene to Mr. Montagu on 21 October with a request that he might discuss it with the Third Sea Lord and himself. On 24 October, a scheme in substance identical with that set out above was sent by Lord Midleton to Mr. Montagu for his consideration, though it had not yet been approved by the Board. (M.W., 143944/3.)
On 26 October, the Board was informed that in Mr. Henderson's opinion their scheme would not secure the confidence of the working classes. The representation of Labour on the Divisional Board ought to be increased to three. A single man, with no colleagues to support him, faced by the representatives of three Departments, would not be accepted by the workmen as capable of safeguarding their interests. Moreover, no one man could speak for all the skilled trades; still less for all trades skilled and unskilled. The selection of representatives would in any case be difficult; but if the Labour Adviser were limited to one man, whatever selection he might make would not obtain the confidence of Labour. Finally, the right of appeal to the Man-Power Board should not be denied to the labour representatives.

V. Mr. Montagu's Alternative—The De-badging of all Semi-Skilled and Unskilled Men.

In the meantime, Mr. Montagu had decided to try to arrive at a settlement with the War Office by making as large a concession as he thought possible, without imperilling the output of munitions, and to ask the War Committee to direct the Man-Power Board for the time being at any rate to consider the Ministry outside its scope. The Board had sent its memorandum of 29 September and its report of 12 October to the War Committee without submitting them for the consideration of the Ministry, although they vitally concerned it. And it had been apparent for some days that the Board was contemplating drastic steps for altering both the policy and the administration of exemptions for munitions work.

Consequently, on 25 October, Mr. Montagu addressed a memorandum to the War Committee. There was no room for difference, he said, between the Ministry of Munitions and the War Office. Both were working on the same problem, the creation and maintenance of equipped forces to fight the enemy. His duty, therefore, was to do everything in his power to release men for the Army consistently with the satisfaction of the demands for munitions.

From the census then being taken he estimated that the badged men of military age might be classified as follows:

<table>
<thead>
<tr>
<th>Employed on work for</th>
<th>Skilled</th>
<th>Semi-skilled</th>
<th>Unskilled</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>War Office</td>
<td>51,000</td>
<td>14,000</td>
<td>7,000</td>
<td>72,000</td>
</tr>
<tr>
<td>Ministry of Munitions</td>
<td>332,000</td>
<td>101,000</td>
<td>51,000</td>
<td>504,000</td>
</tr>
<tr>
<td>Admiralty</td>
<td>227,000</td>
<td>65,000</td>
<td>32,000</td>
<td>324,000</td>
</tr>
<tr>
<td></td>
<td>630,000</td>
<td>180,000</td>
<td>90,000</td>
<td>900,000</td>
</tr>
</tbody>
</table>

He postulated that the skilled men could not be touched. The Ministry and the Admiralty wanted 31,000 more skilled men for their work. Moreover, the Prime Minister had given a pledge to the trade

1 M.N.S.B./232/4.  
2 M.W. 17234/52.
unions that skilled men would not be taken for general service. The Ministry were doing what they could by training and dilution to increase the number of skilled men and to improve their use. It was alleged, indeed, that men were masquerading as skilled to escape military service. He was anxious to dispose of this charge and had invited the War Office to appoint one or two engineers to sit in the Labour Department of the Ministry and satisfy themselves that the scrutiny of skilled men, which he intended to make, was thorough.

He proposed, however, to release both the semi-skilled and unskilled men so far as he could. He must except those who were employed in the manufacture of steel and similar work. But all the rest who were fit for general service he would release, if substitutes were found for them. Moreover, since the unattested men could claim two months' grace before they joined the Army, he proposed\(^1\) to withdraw at once the badge certificates of all semi-skilled and unskilled men, provided that a man should not be called to the Colours:—

(a) without a substitute being found, either by the Ministry or by the War Office;
(b) if no substitute was found, without the Minister's consent;
(c) unless he was fit for general service;
(d) provided that the War Office and the Admiralty agreed to similar terms for the men employed on their work.

All the suitable men should be available by Christmas, if substitutes could be obtained. To make certain of these, the Government ought to have complete control of the services of every man and woman in the country up to the age of 55. Had the time come for universal service? If it had not, the manufacture of munitions ought to be the last to suffer because such powers did not exist.

Having set out the steps he proposed to take to assist the War Office, Mr. Montagu went on to criticise the Man-Power Board. He submitted that it was not acting in accordance with its terms of reference; and, even if it was intended to have the functions it was then exercising, it was not assisting the Minister in his efforts to help the War Office. He urged that the Board was not acting as a court of appeal; nor was it attempting to use existing machinery, as the War Committee had ruled.\(^2\) On the contrary, it was proposed to set up new executive machinery, and to transfer a large part of the Ministry's staff to work it. But the Minister had no staff to spare. If his technical officers were taken, dilution must slow down, and the handling of other difficult labour problems would be impeded. Moreover, there was a long and complicated history behind the matters with which the Board proposed to deal; pledges, agreements, elaborate arrangements to safeguard their fulfilment. If they had realised this, they would have seen that this new proposal would clog administration, hazard strikes, reopen difficulties in a fair way to settlement, harass shop managers and firms unprofitably, and destroy the improved relations with the trade unions, on which output depended. He

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\(^1\) This scheme was suggested to the Minister by Mr. (later Sir) Stephenson Kent on 23 October. (M.W. 17234/52).

\(^2\) See above, p. 5.
could not consent, and he ought not to be asked to consent, to surrender the control of labour in the firms controlled by and contracting for the Ministry. The Minister, being responsible for output, was entitled to make his own arrangements for achieving that output. He therefore asked whether a direction could not be given to the Man-Power Board that for the present at any rate the Ministry of Munitions could be considered outside its scope.

On 31 October, the War Committee discussed the scope of the functions of the Man-Power Board. The Prime Minister drew attention to the Committee’s conclusion of 12 September. In view of the fact that it was not then considered advisable to attempt to lay down any hard-and-fast rules, he held, without prejudice to the question of principle, that it ought not to be regarded as ultra vires for the Man-Power Board to make suggestions to the War Committee, pointing to changes of machinery. The Chairman of the Board stated that the Board would not make any order or proposal public without first submitting it to the War Committee.

VI. The Discussion between the Minister of Munitions and the Man-Power Board, 2 November, 1916.

Having failed to make good his claim that the Board’s action was ultra vires, Mr. Montagu stated his case before them on 2 November. At the outset the Chairman said that their proposals had not received the final approval of the Board, but were put forward for discussion. Mr. Montagu began by explaining that whatever the Ministry might have done in the past, it then confined itself to executing the requirements of the Army in the Field, as formulated by the Army Council. The new programme, dated 23 September, would need 300,000 more men and women to carry it out, so far as he could foresee.

He went on to read out a paper he had just had prepared on the Board’s scheme for dealing with badges. He regarded it as a fundamental principle that whoever was responsible for the supply of munitions must be responsible for the control of the labour necessary to produce them. The Board’s scheme vitally impaired such control as the Minister possessed over men of military age. The labour administration of the Ministry did not consist of a number of discrete parts dealing with separate problems; it was a single organisation, dealing with a single, though varied and complex, problem. Badging, substitution, dilution, the verification of demands for labour, enquiries concerning leaving certificates, time-keeping, infringements of the Munitions of War Acts, complaints of victimisation, the removal of trade union restrictions, prosecutions, the conduct of munitions tribunals, were all inter-related; they must go hand-in-hand, and be done under single control. To separate the withdrawal of exemptions and substitution from dilution and put them in the hands of different officers responsible to different authorities, would result, if not in chaos, in a great loss of efficiency.

1 See above, p. 5. 2 M.W. 143944/3; Evidence, pp. 11–18.
Moreover, how was the action of the Divisional Boards to be co-ordinated? How were they to become cognisant of the engagements entered into with the trade unions, and the obligations under which the Government had placed itself? What security was there that attention would be paid to these pledges? Control by means of appeals was slow and wasteful. Again, how were they to be kept informed of the changing requirements of the Army, of the urgency for a firm's output, of the need for labour in other parts of the country? Secrecy was often essential, and he intended to preserve it.

Mr. Montagu proceeded to show that it would be difficult to find an employer who possessed at once the technical knowledge required and the confidence of his competitors; nor was it probable that any of the great trade unions would be content that the representative of another union should decide the fate of their own members.

He claimed, therefore, that he should be left in control of exemptions for munitions work. But he did not suggest that his local organisation might not be improved. He was told that the pledges as to the recruiting of skilled men were still not being kept. He therefore proposed to ask labour representatives to act along with the local officers of the Ministry in order to discover and deal promptly with such breaches.

Mr. Montagu's statement was followed by a general discussion. The Chairman assured the Minister that he recognised the extreme difficulty of the task which had been entrusted to him. The Board was not hostile to the Ministry, but seeking a via media for the Departments. It would not have been created unless the demands on manpower had exceeded the supply; its only purpose was to find the best means of reconciling the rival claims. In view of the Military Service Act, the presumption was that every man up to 41, who was not covered by a direct statutory exemption, ought to go into the Army. But the Ministry of Munitions had the last word as to any man it claimed, and judged in its own cause. Would the position be tolerable if it were reversed and the War Office had an absolute right to decide whether a man should be exempted or not?¹

Mr. Montagu replied that it would be intolerable, as his predecessor had seen, when he claimed to have the last word. He had received an order, and it would be unfair to hold him responsible for executing it if the labour necessary to carry it out was subject to an indefinite strain.²

The Chairman urged that the result of leaving the Ministry sole judge of what should be done had not been satisfactory. De-badging had failed. Many recommendations had been made, but few acted on. The Ministry could not investigate fitness for particular work or degree of skill. That must be done on the spot. But decisions were made at headquarters by subordinate officials, who had no means of becoming conversant with the facts or training to judge of them.³ Complaints were rife, and came from Labour as much as from any other source. Labour said the skilled men were going into the Army, while the unskilled were being badged.

The Minister explained the procedure which had been followed. He admitted that there had been a net increase in the number of badges issued; but as long as the requirements of the War Office for munitions increased, so must badges. He would, however, try to devise a method of associating a military representative with his own local officer to decide questions of substitution. Whether a substitute was suitable or not was already decided locally; but he was not prepared to leave the question whether a substitute could be dispensed with to local officers, without giving the employer an opportunity of appealing to the Ministry.

The Chairman thought that the Ministry's position would be strengthened if the final decision rested with someone who stood outside, such as the factory inspector. It was very invidious for the Minister to decide against the manufacturer whose customer he was.

The discussion then turned to the classification of men as skilled. The Chairman suggested that the Ministry claimed as skilled an unduly high proportion of badge holders; a number of these should be released for the Army, if not at once, shortly. Mr. Barnes said that he called a man skilled who had served an apprenticeship. The Minister replied that this definition was of no use for his purposes; he must cover the skill of a man operating a machine which a newcomer could not operate without a certain period of training. The Chairman was disposed to agree with the Minister, but he would give the employer a certain time for the release of such people and then take them, substitute or no substitute. Let him make the vacuum, and it would be filled; otherwise no substantial progress could be made.

Mr. Montagu replied that if the Board made such a recommendation, he could only tell the War Committee that in the opinion of the Ministry as a whole he could not be responsible for output.

Finally, the Chairman pointed out that in Mr. Montagu's scheme Labour was not represented. But a man might think he was being unfairly treated; perhaps he had taken leading part in some labour dispute, and suspected his employer of getting rid of him by substitution. This might be avoided if it was decided that all men of a certain age must go. But Mr. Montagu's scheme turned on substitution, and therefore left room for the fear of victimisation. He considered it essential that Labour should be represented in the administration of the scheme.

VII. The Proposals of the Amalgamated Society of Engineers.

On the following day, 3 November, the Board received the Executive Council of the Amalgamated Society of Engineers. They complained that, in spite of the Prime Minister's pledge, their skilled men were being taken for the Army. They alleged that some recruiting officers ignored the validity of badge certificates.

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1 See Vol. IV., Part III, Chap. III, Sects. V, IX.  
2 Evidence, p. 35.  
3 Ibid., p. 33.  
4 Ibid., p. 41.  
5 Ibid., p. 43.  
6 Ibid.  
7 Ibid., pp. 46-48.  
8 Evidence, pp. 11-15.
of their society, badged and certificated, had even been arrested.\(^1\) Then there were the skilled men in the railway shops, at the Royal Aircraft Factory, Farnborough, and elsewhere, who were not badged,\(^2\) though they were engaged on munitions or other essential work. Finally, there were men still employed on commercial work which was understood to be of national importance for export. These men were continually being taken for military service. They estimated that of their 200,000 members about 15,000\(^3\) were in the Army, of whom about half were serving as ordinary soldiers.\(^4\)

They warned the Board that there was great unrest in many parts of the country, and they had very serious misgivings as to what would happen if this practice continued. Their difficulty was that they did not know where they were. They were buffeted about from one Department to another like a shuttlecock.\(^5\)

In their opinion the best solution would be for their society to issue a card to their members certifying that they were skilled men,\(^6\) and this card should be accepted by the military authorities as exempting the holder from military service.\(^7\) They allowed it was not possible to give absolute immunity to the skilled engineer,\(^8\) but suggested that in so far as skilled men were required for skilled work in the Army, the A.S.E. should be invited to find them\(^9\).

Some members of the council thought that exemption should be conditional on the undertaking to work wherever required as a Munitions Volunteer.\(^10\) But it appeared that the society was not yet prepared to commit itself to this position.\(^11\)

After some discussion on these questions it was suggested that the council should draft their proposals, and come back with them on 7 November. Accordingly the following suggestions were then made:—\(^12\)

\(a\) No skilled men to be taken compulsorily for military service.

\(b\) Skilled men required for the various mechanical operations in the Army to be first taken from skilled men now serving in non-mechanical units.

\(c\) The A.S.E. is prepared to furnish names and, wherever possible, particulars of skilled men now serving in non-mechanical corps.

\(d\) The Government to take steps to issue badge certificates to skilled men not at present in possession of a badge certificate, and no skilled men to be de-certificated without the consent of the union.

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\(^1\) Evidence, p. 7.  
\(^2\) Ibid., p. 20.  
\(^3\) Ibid., p. 3. Cf. Evidence, 7 November. On 7 November the council told the Board that between 3 October and that date 97 journeymen and 36 apprentices, members of their society, had been called up. (Evidence, p. 8.)  
\(^4\) Ibid., p. 10.  
\(^5\) Ibid., p. 7.  
\(^6\) The term "skilled men" included (1) those who had served a recognised apprenticeship and were getting full wages; (2) machine men who set up their own jobs, and ground and fixed their own tools. (Evidence, p. 35.)  
\(^7\) Ibid., pp. 8, 20.  
\(^8\) Ibid., p. 4.  
\(^9\) Ibid., p. 27.  
\(^10\) Ibid., pp. 25–32.  
\(^12\) Evidence, p. 2.
(e) That if the Government need further drafts of skilled men, the A.S.E. are prepared to meet and discuss terms whereby such men can be secured on a voluntary basis.

(f) Cards to be issued by the Society's responsible officials certifying that the bearer is a skilled workman and a member of the A.S.E.

The chairman of the Board at once took exception to clause (d). That made the union master of the situation, and what was conceded to one union could not be denied to others. But it was not possible to contemplate that such powers as those should be given at that time to an authority which was not responsible to the Government. He suggested, however, that the trade card proposed in clause (f) should be taken as strong presumptive evidence of skill, and an arrangement should be made whereby trade union officials should have the right of bringing the case of a skilled man, who in their opinion had been improperly taken, before some local authority, which should at once investigate the case and decide it. Mistakes were inevitable; what was needed was a quick and sure remedy.

The Chairman then asked what steps could be taken to render available for national work skilled men who were engaged on private work and not indispensable. In reply it was said that the question of military service should be settled first. The situation was very grave. The Council had just received the following telegram from Sheffield:

"Unofficial meeting of members, 3,500 men, Sunday, passed resolution that if man taken out of Vickers for military service is not returned to civil life in seven days all our members and kindred trades down tools."

The position at Glasgow was acute. The District Committee there emphatically protested that all "dilutees" must be combed out before skilled men were taken from the Army. A notice, posted in the Royal Aircraft Factory at Farnborough, that the Medical Board would attend shortly to examine and classify all men not already enlisted into the Army, had very much incensed the men there and the worst was feared. These were indications of what was happening throughout the United Kingdom.

The Chairman said it was lamentable that, under any circumstances and under whatever provocation, such a threat as the Sheffield resolution should be used in regard to munitions work. It meant that over a dispute, whether right or wrong, with respect to one man in Sheffield, lives were to be sacrificed by the hundred in France. The men should be told that with all seriousness.

The deputation urged that it was not a case of one man. The one man taken from Vickers was the last straw. The remedy, in their opinion, was to exempt the skilled men from military service. If that was done, they were ready to agree that these men should be moved to the work for which they were most urgently required in the national interest, under conditions which would be satisfactory to all the parties concerned after discussion and agreement. They were

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1 Evidence, pp. 3, 4. 2 Ibid., p. 5. 3 Ibid., p. 6.
prepared to co-operate in finding the skilled men necessary for the Army on a voluntary basis; but if these men were taken compulsorily, the stage of receiving threatening telegrams would be passed. However unfortunate it might be, they were compelled to state before the Board what they believed to be the fact. The threat would be carried into execution long before they were called into consultation.¹

VIII. The Third Report of the Man Power Board,
9 November, 1916.

The Board's third report opened with a statement of the Army's requirements. 314,000 general service men were needed by 14 March, 1917; but not more than 114,000 of these were likely to be obtained by medical re-examination, the expiry of temporary exemptions, or the attainment of military age. 200,000 must therefore be drawn from those who were protected from military service. Excluding men employed in mines and railwaymen, the Board classified the protected men as follows:—

1. Men protected by Government Departments:—
   (a) by badge certificates ... ... 1,000,000
   (b) by other means about ... ... 345,000
       ____________________________________________ 1,345,000

2. Men protected by tribunal certificates:—
   (a) on the ground of their employment in certified occupations ... ... 473,000
   (b) on other grounds ... ... 453,400
       ____________________________________________ 926,400

3. Men protected by recruiting officers' certificates:—
   (a) certified occupations ... ... 365,000
   (b) on direct instructions from the War Office ... ... 50,000
       ____________________________________________ 415,000

     Total ... ... 2,686,400

In the opinion of the Board the machinery for dealing with badging and de-badging was not satisfactory and had not secured the public confidence. Only 52,000 badges had been withdrawn in ten months; probably more than this number had been issued during the last three months. The War Office calculated that not more than a quarter of the men de-badged had been secured for the Army. The tribunals complained that men were badged to whom they had refused exemption. Grave unrest was being caused in the labour world. The Admiralty and the Ministry of Munitions were the sole judges in their own cause.

The scheme suggested by Mr. Montagu, on 25 October,² afforded a basis for a satisfactory solution, but was open to the following objections:—(1) No provision was made for deciding the disputes, certain to arise, as to the classification of the men concerned; (2) it

¹ Evidence, p. 20. ² See above, p. 24.
seemed impossible to constitute the Minister, who was, so to speak, a party to the dispute, sole judge of the question whether in any given case substitution was indispensable; (3) the Minister's proposal extended to all unskilled and semi-skilled men up to the age of 41. But in the Board's opinion it was improbable that the older men could be better employed in the Army than in the production of munitions. To de-badge them would needlessly add to the work to be done and increase the unrest of labour.

The Board accordingly recommended:—

(1) That the Admiralty and the Ministry of Munitions should forthwith de-certificate all badge-certificated men of military age under 26 by general order, provided that—

(a) The War Office shall not call up more than 33 per cent. of the men so de-certificated in any single establishment;

(b) No man so called up shall be a fully skilled man;

(c) Only men fit for general service shall be taken for the Army;

(d) No man shall be called up who is engaged on any of the kinds of work set out in Appendix A¹ without the consent of the District Referee (hereafter described) for the area in which the man is employed;

(e) No man shall be taken for the Army who is engaged on any of the kinds of work set out in Appendix B,² until a substitute has been provided;

(f) The balance of the de-certificated men not called up shall be given temporary exemption certificates by the local Recruiting Officer, and such certificates shall not be withdrawn without instructions from the Army Council acting upon fresh orders from the War Committee.

It is hoped that this scheme will provide about 80,000 general service men for the Army within two months from the date of the general order.

(2) From the date of this order no men of military age under 26 years of age shall be badged unless fully skilled.

(3) It shall be a condition of the exemption of fully skilled men from military service that they forthwith enrol as War Munition Volunteers.

(4) To carry out this scheme it is necessary to provide local machinery for the determination of points which may be in dispute.

The Board recommend that the War Office and the Ministry of Munitions respectively should appoint District Representatives (the former not necessarily a soldier, and preferably a man with works or engineering experience) to act locally in each of the principal centres and in such other areas as the Departments may find advisable.

¹ Appendix A included with a few exceptions the occupations certified by the Ministry of Munitions (see Vol. IV, Part III, Appendix VII) underground workmen in mines other than coal mines, and sundry others.

² Appendix B covered tube workers only.
These officers shall determine:

(a) which men are to be called up;
(b) in what cases substitution is necessary;
(c) whether an individual man is a fully skilled workman or not;
(d) what men of 26 years of age and over should be badged or de-badged.

In the case of naval establishments, and, if desired by the Admiralty, in the case also of works under the sole control of the Admiralty, a representative of the Admiralty shall take the place of a representative of the Ministry of Munitions.

In case of any difference of opinion arising, the Board propose that it should be determined by a District Referee (wherever possible a Superintending Factory Inspector) to be appointed by the War Committee on the recommendation of the Man-Power Distribution Board, and to act as that Board's representative, and that his decision should be final.

In order to meet the complaints made by the trade unions and to allay the serious unrest which prevails among them, the Board think it necessary that a duly appointed representative of a union should be authorised to represent to the District Referee any case in which the union think that one of their members is being improperly included in the unskilled or semi-skilled classes; on this point also the decision of the District Referee should be final.

It has been suggested to the Board that the unions should issue cards to their fully skilled members. The possession of such a card would be strong presumptive evidence that the man was so skilled, and no man possessing such a card should be called up till his case had been submitted to the District Referee.

The Board recommend this proposal for adoption. The form of card to be used should be submitted for the approval of the Man-Power Board.

The Board think that this scheme would provide a simple and effective remedy for the complaint of the trade unions, that at present both the provisions of the law and the pledge of the Prime Minister are not infrequently violated, and that they are unable to find any authority to whom they can appeal for redress with any probability of success.

The substitution scheme, which has recently been agreed to between the Admiralty, the War Office and the Ministry of Munitions, should materially assist the carrying out of the foregoing proposals without causing undue disorganisation of industry or loss of output of munitions.

The Board then proceeded to make the following recommendations:

(1) The Government Offices.—That an instruction should be issued to all Departments that no new men fit for general service should be engaged.

(2) The Certified Occupations.—That exemptions granted to men in certified occupations should only be valid if the men were engaged or agreed to engage on work of national importance.
(3) Skilled Men in the Army.—That the military authorities should be directed by the War Committee to transfer such men to units where their special skill was required, in order that the demand of the Army for skilled men might be met without withdrawing them unnecessarily from munitions and other urgent work; and they should invite the trade unions concerned to assist them in tracing these men.

(4) Employment of Women.—That the Army Council should consider the establishment of a trained corps of volunteer women, under women officers and in uniform, for employment in substitution for men on various subsidiary army services.

In conclusion, the Board said that they believed that their proposals were the best that could be devised within the limits of existing law, pledges and agreements, for providing a further supply of men for the Army, without dislocating necessary work. It was not within their province to express any opinion on these restrictions, but they were convinced that further measures for the direction and control of labour would be necessary to enable labour (both male and female), then engaged on private work or work not of national importance, to be diverted to national war service work.

IX. The Objections to the Man-Power Board’s Proposals.

In answer to this report of the Man-Power Board, Mr. Montagu circulated two memoranda on 15 November, and a third on 18 November. He developed at length the various lines of criticism which have already been indicated. He then amplified the alternative which he had proposed on 25 October and laid before the War Office, but which, so far, had been neither accepted nor rejected. He believed that his scheme would produce more men for the Army than the Man-Power Board’s scheme, which he argued could not yield the 80,000 general service men they anticipated. In order to deal with complaints of victimisation and improper debadging or enlistment he proposed to set up local committees, consisting of the Chief Dilution Officer, representatives of the Admiralty and War Office, the Divisional Officer of Employment Exchanges, and representatives of Labour nominated by the Labour Adviser. These committees would decide cases on the spot so far as possible; but to deal with references to London he proposed to set up a new section in the Ministry, the personnel of which would be settled in consultation with the Labour Adviser.

The Minister also undertook, so far as possible, in shell and other contracts to fix a minimum percentage of women and ineligible men to be employed in fulfilling the contract.

1 See above, pp. 24–26. 2 See above, p. 24. 3 The number of badged men aged 18 to 25 was 276,700. Of these about 112,000 were employed in the iron and steel and kindred trades, and in shipbuilding, where substitution was very difficult and the prospective demand for men was 60,000. Of the remainder, 164,700, the great majority were skilled; and in any case 33 per cent. of them only amounted to 55,000.
Finally, he pointed out that the provision of substitutes, which must be found before many men could be released for military service, was seriously handicapped by the immobility of labour and by the absence of any control over men who were not of military age, or were unfit for military service, and over women. It might be necessary to adopt the principle of compulsion for labour. Probably every man up to the age of forty-five who was badged, exempted, or ineligible for military service, should be enrolled as a national war service worker, and should be liable to be claimed by the Government, subject to appeal to the tribunals. He suggested the appointment of a committee to consider this question. The conditions should be not less favourable than those given to War Munitions Volunteers, and the extension of the scheme to women should be considered. Before such a policy was adopted, the labour requirements of every department of industry should be laid before the trade unions and the public. The assistance of the unions should be invited in satisfying the country's needs, with a warning that, if the needs were not satisfied, a scheme ready to hand for compulsion was inevitable.

On 17 November the Board of Trade stated that the machinery proposed by the Man-Power Board was, in their opinion, gravely defective. It would be administratively impossible for the local tribunal suggested to carry out the duties assigned to it. At the utmost it could only act as a court of appeal in exceptional cases.

The day before, Mr. Henderson had called the attention of his colleagues to what he regarded as the gravest crisis in industry since the outbreak of war. The threatened stoppage at Sheffield was only one indication of the unrest prevailing throughout the labour world, unrest which he could only ascribe to one cause—the complete want of confidence in the equity and efficiency of the existing arrangements for the distribution of man-power. He was convinced that the proposals of the Man-Power Board, so far from allaying this unrest, would precipitate a most formidable industrial outbreak.

While the War Office and the Man-Power Board had to deal with men as units in vast totals, the labour leaders had to deal with them as individuals with grievances, as men who knew by heart the Prime Minister's pledge, and believed that it was being daily violated. This belief might be groundless, but, so long as it existed, all minor measures for improving the organisation of essential industries would be difficult and all larger measures of universal service impossible.

There was one way, and only one way, of allaying the temper which had been aroused. The outstanding grievances were victimisation, when the skilled man lost his protection because he had offended his employer, or because the employer had a friend whom he wished to shelter, and improper enlistment, when a skilled man was taken into a line regiment in defiance of all pledges. The workmen must be satisfied that the right men were being taken and the right men were being left. This could only be done if their representatives were given a share in the management of the machinery itself. Mr. Montagu's scheme, if

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1 See above, p. 32.
adopted in its entirety by the Government and loyally worked by the Departments, would, he believed, not at once, but in a short time, restore the confidence of Labour, and enable the Government to confront the difficulties inherent in the larger plans of national organisation to which they were being logically drawn. But confidence must come first.

In conclusion, Mr. Henderson said:

"I may appear to have suggested that all we have to consider is the personal grievance of the skilled men. This is far from being my intention, and I can say with confidence that in the view of all responsible labour leaders the sole ground on which a skilled man is entitled to claim exemption from military service is that he is prepared to place his skill wholly at the service of the nation industrially."

X. The Sheffield Strike, 16 November, 1916.

The storm broke before the report of the Man-Power Board was considered by the War Committee. On 9 November, Mr. J. T. Murphy, Secretary of the Sheffield Engineers' Shop Stewards' Committee, wrote¹ to the Prime Minister informing him that at a mass meeting of the members of the engineering trade unions, held on Sunday, 5 November, the following resolution was passed unanimously:

"That in the event of the military authorities attacking our members for military service a down tools policy will be adopted. This is applicable only to journeymen and apprentices who were in the trade prior to the commencement of the War. In the case of Leonard Hargreaves, he must be returned to civil life within seven days, or this resolution as above will be put into effect."

He went on to explain that the crisis had arisen as a result of the engineers' resentment at the taking of skilled men whilst the dilution of labour proposals were in operation. L. Hargreaves was a fitter by trade, employed at Messrs. Vickers, Brightside. He was debadged, and having no certificate had to join the Army.² He was then in the Army Service Corps.

A similar letter was sent to Mr. Montagu on the same date.³ On 13 November, Mr. Murphy wrote again to the Minister, demanding the release of a skilled turner, who, after serving twelve months in France, had been wounded and discharged on the expiry of his time, but having

¹ M.W. 153721.
² Hargreaves was in fact transferred as a War Munition Volunteer from Erith to Sheffield on 25 January, 1916. On 14 September the firm made an application for a badge certificate which the Ministry of Munitions received on 27 September. On 26 October the certificate was issued; but Hargreaves had already been called up on the 23rd. Presumably the firm omitted to apply for a badge certificate earlier because he was a War Munition Volunteer (see Vol. IV, Part III, Chap. III, Sect. IV). The subsequent delay at the Ministry was due in part to the complicated procedure which was necessary in order to carry out the Man-Power Board's directions of 3 October (see above, p. 11).
³ In the letter to Mr. Montagu the words "of the receipt of this letter" were added after "seven days" in the resolution quoted above.
been refused a badge certificate\(^1\) and called up had rejoined the Colours on 9 November, feeling that he could not suffer the indignity of being fetched by escort. Mr. Murphy added that the question at issue was not only the return of these men, but the standing of skilled workers in relation to the military authorities. Many of them had received only temporary certificates; many others had been refused certificates altogether. The whole district was in a fever of excitement. “Engineers consider these actions a deliberate violation of the pledges given to them, and in the face of the dilution of labour which has taken place with their assistance there is every danger of their resentment taking violent form.”

On 14 November, representatives of the Ministry conferred with Mr. Henderson,\(^2\) who said that the situation was very serious. He thought that an endeavour should be made to give the trade unions some assurance with regard to those men who were genuinely skilled. He suggested that a skilled man might be defined as a man who in August, 1914, was a member of a recognised craft union. Mr. Montagu, on being informed of this, decided to see Lord Derby at once and put to him a proposal that the craft unions should be asked to provide for the Army, by a voluntary system, the number of skilled men required by the military authorities, and that conditionally upon their doing this the Ministry of Munitions would undertake to debadge no skilled men, and to give a badge to any skilled man not already in possession of one—“skilled man” to be interpreted in the sense suggested by Mr. Henderson, the question of skilled men who were not members of a recognised craft union being left open:

Consequently, on the afternoon of 15 November, Lord Derby, Mr. Montagu and Mr. Henderson,\(^3\) met representatives of the A.S.E. and other craft unions. In view of the special circumstances, Lord Derby undertook that Hargreaves should be freed from military service, although, as he explained, the War Office did not act outside its powers in taking him, and was then using him in his skilled capacity as a fitter. He went on to outline a scheme under which he proposed that all members of the engineering trade unions who were journeymen or apprentices at the outbreak of war should enrol as War Munition Volunteers, and receive cards of exemption authorised by the Army Council through their unions, and in return the unions should undertake to procure for the Army the men who were required as artificers. As a result of Lord Derby’s statement the following telegram was sent by the Executive of the A.S.E. to their branch secretary at Sheffield:—

“On representations of Executive and in view of proposals submitted by Ministry for dealing with enlistment of skilled men War Office have given orders for dealing with Hargreaves to be returned to civil life and therefore stoppage of work cannot be justified or permitted.” But the secretary was ill in bed, and the movement was in the hands of the shop-stewards.

\(^1\) The badge was refused, in accordance with general instructions, because he was 23 years of age and a time expired soldier. (M.W. 153721).
\(^2\) M.W. 153721.  \(^3\) Hist. Rec./R./320/15.
A mass meeting of 1,000 men was held at Sheffield on the same day and resolved to strike at 5 the following afternoon unless a satisfactory message was received from the Government before then. Next morning the shop-stewards' committee received a letter from the Executive of the A.S.E. advising them to do nothing until the result was known of the national conference, which had been summoned to deal with the whole question on 16 November. The committee replied that they could not accept this instruction unless the War Office or the Ministry assured them that Hargreaves had been released. At mid-day, telegrams were sent to him and to Mr. Lloyd George, but no replies were received, and a telegram to Mrs. Hargreaves, at Halifax, asking whether her husband had returned home, brought the answer "No." At 5 o'clock, therefore, on 16 November, the strike began at Sheffield and Rotherham, and men were despatched on motor cycles to carry the news and bring the men out elsewhere. Next morning it was reported that nearly all the skilled men, numbering tens of thousands, had struck work; if the strike went on for another day, probably 100,000 would be out. On Saturday, the men at Barrow went out in sympathy with Sheffield.

In the meantime, at 6.20 p.m. on 16 November, the Ministry telegraphed to Mr. Murphy, quoting the telegram sent by the Executive of the A.S.E. to their branch secretary, and adding:—

"Grievances as to enlistment of skilled men are being examined and dealt with in consultation with the trade unions concerned, who are assisting to maintain the output of munitions essential at this time of national crisis. No stoppage of work on munitions must take place."

At the same time the Executive of the A.S.E. telegraphed to their officials in Sheffield, instructing them to inform members that they must immediately resume work. This instruction was read out at the A.S.E. Institute three hours later, and received with derision. It was thought that the Ministry were trying to avoid recognising the shop-stewards; moreover, a telegram had just been received from Hargreaves, saying that he had received no intimation of release. The next morning, Mr. Murphy announced from the steps of the Institute that no news of Hargreaves' release had yet been received; the men required his presence in Sheffield, and a solid guarantee from the Government that similar cases should not occur in future. Until they got this they must hold fast and not go back to work.

On Saturday morning, the 18th, Hargreaves appeared in Sheffield at a meeting of the strikers. They then decided to return to work at 6 a.m. on Monday, but unanimously agreed to strike again if any one who had participated in the strike was victimised or penalised in any way. The decision to resume work was no doubt affected by the knowledge that negotiations were proceeding favourably in London.

At first sight the narrative of this strike looks like a chapter of accidents. The case of Hargreaves was singular. The object of the strike was conceded the day before it began. Sheffield was noted for its steadfast devotion to war work and its freedom from industrial trouble. Yet in the annals of the war no strike showed so few
signs of indecision or half-heartedness. The main reason was the profound and wide unrest, due to the belief that the pledged word of the Government was being violated; that dilution, introduced under the pretext of spreading skilled labour, was being used to force the skilled men into the Army and to exempt those who had taken up munitions work to evade military service. The suspicion with which the Government was regarded was extended to the officials of the trade unions, who seemed powerless to protect the interests of the rank and file. Consequently the intimation of the Government's intentions, sent through the A.S.E. on the eve of the strike, failed to prevent it. Perhaps it may be thought that the Ministry of Munitions should have communicated directly with the shop-stewards. But its deliberate policy was to negotiate only with the recognised leaders of the trade unions. Any other course would have further impaired their authority, already shaken by the Munitions of War Act. Possibly the strike might have been averted if the local representative of the Ministry had been given a more authoritative position, and not merely employed as an intelligence officer, or even if some one had been despatched from headquarters with instructions to carry out what was necessary without a moment's delay. Even with the aid of the telegraph and the telephone, departmental machinery is too cumbrous to deal with a crisis, where every minute counts. On the other hand the strike confirmed what events on the Clyde had already shown, that the shop-stewards under capable leadership were a formidable power, which the restrictions imposed on the trade unions by the war were strengthening. The committee which organised the Sheffield strike was appointed by the mass meeting on 5 November, and, after every allowance has been made for the inflammability of their material, the rapidity and completeness with which they effected their purpose were remarkable. Their success was a sinister omen for the Ministry.

XI. The Trade Card Agreement, 18 November, 1916.

The proposals made by Lord Derby on 15 November were considered the next day by the national conference of the A.S.E. He had proposed that all members of the engineering trade unions who were journeymen or apprentices at the outbreak of war should place their services at the disposal of the country as War Munition Volunteers; they should then receive, through their union, cards of exemption from military service authorised by the Army Council, who would issue orders to all recruiting officers that no man in possession of such a card be called to the Colours without instructions from the War Office, which would not be issued without reference to the Labour Adviser and the Minister of Munitions, after a local enquiry at which a representative of the union would be heard in support of the man's claim; the trade union officials would undertake to procure for the Army weekly, in the first instance out of the men not employed by or under the Minister of Munitions, men of the age and skill required to fill vacancies in the artificer grades of the Army, the requirements

1 M.W. 153721.
of the Army being communicated weekly through the Labour Adviser to the trade unions concerned.

In reply, the conference adopted counter-proposals which differed from Lord Derby's in the following particulars:—(1) all journeymen and apprentices should be exempt; (2) only men not then engaged on war work should enrol as War Munition Volunteers; (3) the provision empowering the War Office to cancel exemptions after consultation with the Labour Adviser and the Minister of Munitions was struck out; (4) the obligation to provide the artificers required was altered into a promise to do their best; (5) special terms were asked for men enrolled as artificers.

On 17 November a conference was held at Downing Street between members of the Government, including Mr. Montagu, Mr. Chamberlain, Mr. Runciman, Mr. Henderson and Lord Derby, and representatives of the A.S.E. The deputation attached very great importance to the limitation of the provision concerning War Munition Volunteers. They pointed out that many men already enrolled had not been moved, and urged that the great majority of the men then on war work would never need to be moved. They inclined to withdraw their opposition to the provision for cancelling exemptions, when it was proposed that the executive of the union should be consulted, and the local enquiry should be restricted to cases where a man's right to hold a card was disputed. They agreed to limit the agreement to men who were either journeymen or apprentices at the outbreak of war. The Government then submitted a new draft embodying their suggestions as to the withdrawal of the cards, and meeting the union's claim concerning Munition Volunteers, and their undertaking to provide artificers.

This draft was considered by the conference on 18 November. The only amendment of importance was the substitution of August, 1915, for the outbreak of war, as the date bringing journeymen and apprentices within the agreement. This was accepted by the Government and the following agreement was then signed by the Ministers and by the delegates of the national conference who bound themselves for the Government and for the society to do collectively and individually all they could to make it successful:—

The undertaking given by the Prime Minister on 23 September, 1916, that "skilled men (by which I mean men who from natural ability or training, or a combination of both, have special aptitude for particular and indispensable kinds of national work here at home) ought not to be recruited for general service" will be strictly observed subject to the conditions attached to it by the Prime Minister at the time.

In order to give immediate effect to this pledge it is proposed:—

"1. That all members of the Amalgamated Society of Engineers,\(^2\) as one of the trade unions of the skilled engineering

\(^1\) M.W. 153721/3.

\(^2\) The words "the Amalgamated Society of Engineers as one of " were added at the conclusion of the conference with the Government on 18 November. (Hist. Rec./R./320/17).
trades, not now fully engaged, or at any time hereafter ceasing to be fully engaged, on war work, shall enrol as War Munitions Volunteers, and thus place their services at the disposal of the country, in accordance with arrangements now in existence under the War Munitions Volunteer Scheme.

"2. The skilled men referred to in this agreement are men who were either journeymen or apprentices prior to August 15, 1915.

"3. All skilled men on war work or who have enrolled as War Munitions Volunteers shall be provided with a card of exemption from military service. The form of this card will be authorised by the Army Council and the card will be issued through the trade unions. Orders will be issued by the Army Council to all recruiting officers that no man who produces such a card to the local recruiting officer shall be removed from his work without a specific authority from the War Office, which will not be given without reference to the Minister of Munitions and the Executive of the man's union.

"In case of any dispute arising as to a man's right to hold a card it shall be decided by a representative of the War Office, a representative of the Ministry of Munitions, and a representative appointed by the Executive of the union to which the man belongs.

"4. The provision of skilled mechanics for the Army will in future be made by the Ministry of Munitions.

"The trade unions will do their utmost to provide the Ministry of Munitions with skilled men, who will undertake to serve at the choice of the Ministry either in the Artificers' Corps in the Army or as War Munitions Volunteers in civil life.

"If skilled men for the Army are not secured in this way, it is clearly understood that recourse must again be had to the statutory powers.

"5. That the Amalgamated Society of Engineers will furnish names and, wherever possible, particulars of skilled men now serving in non-mechanical corps, and the Army Council will continue to make every possible effort to transfer such skilled men to mechanical units."

The agreement was signed by Mr. Montagu, Mr. Henderson, Mr. Chamberlain and Lord Derby, on behalf of the Government, and by Mr. Brownlie and eleven of the leading officials of the A.S.E. on behalf of that society.\(^1\) It was at once communicated to the Press, in order to check any aftermath of the strike. But a note was prefixed stating that the Government had endeavoured to obtain a conference with representatives of the other skilled engineering unions concerned, but it was not found possible to collect them in time.

On 22 November, members of the Government conferred with representatives of six engineering unions\(^2\) in the morning, and in the

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\(^1\) M.W. 153721/3.

\(^2\) Steam Engine Makers, Amalgamated Tool Makers, United Machine Workers, United Pattern Makers, Amalgamated Smiths and Strikers, Electrical Trades Union.
afternoon with a committee representing the unions with which the Government was negotiating for the extension of dilution to private and commercial work. At the first conference no little resentment was expressed at the preferential treatment of the A.S.E.; as in the nursery, the most troublesome child had received the best attention: the A.S.E. declined to act along with the other unions, and then, a separate arrangement having been fixed, the other societies were expected to fall into line with them; such treatment prejudiced their officials in the eyes of their members and gave the A.S.E. a splendid advertisement. At the second conference one of the fatal weaknesses in the Trade Card Scheme came to light. The scheme was intended to be restricted to those unions from which the Army could draw artificers. But the distinctions between the unions did not answer this purpose. The lines of demarcation were variously drawn by different societies, nor were they drawn as a rule precisely. Even the A.S.E. embraced classes of labour for which there was little demand in the Artificers’ Corps. Moreover, the scheme was regarded by the unions primarily as a scheme for securing exemption from military service on the ground of skill. The claims therefore, of the two great shipbuilding societies, the Boilermakers and the Shipwrights, were not refused. After some discussion the privileges of the scheme were extended to the Sheet Metal Workers and to the Ironfounders and the Scottish Moulders. Castings were obviously essential for every kind of munition work. The British Steel Smelters were also included. But in spite of their protests and the claims of aircraft work the wood-working trades were excluded. The discussion showed that the application of the scheme proceeded on no well-defined principle, and that those who were denied its privileges would resent their exclusion bitterly.

XII. The Government’s Solution of the Man-Power Problem, November, 1916.

The Sheffield strike brought into a new perspective the Man-Power Board’s proposal to de-certificate all men under 26 years of age. Accordingly, when the War Committee took the Board’s third report into consideration on 17 November, Mr. Chamberlain explained that the Board only intervened when a difference arose between the Ministry of Munitions and the War Office; under these circumstances the Board had made the proposals which seemed to them best suited to the situation; but the Board were far from wishing that their proposals should act as a bar to agreement between the Departments, if such agreement was possible, and, if they agreed, there was no occasion to submit the results to the Man-Power Board, who need only be informed that agreement had been reached.

The Minister of Munitions said that the proposals of the Man-Power Board were not acceptable to him, and that it would be infinitely


3 For the list of societies represented at this conference, who were included in and excluded from the Trade Card Scheme, see Appendix I.
preferable to arrange an agreement with the War Office on these questions by direct conference and negotiations between the War Office and the Ministry of Munitions, and thus avoid a prolonged debate at the War Committee. He had submitted proposals some time ago to the War Office. They had not been accepted or rejected, but had not been proceeded with because it was held that the Man-Power Board must deal with the matter. Since then similar questions had been settled by direct negotiations with other Departments, and he submitted that the right use of the Man-Power Board was to settle differences between Departments when they could not settle them between themselves. In this case, as no settlement had yet been attempted, he urged that an effort should now be made by means of a meeting between Lord Derby and himself.

This suggestion met with the general approval of the War Committee. It was agreed that the interests of the Admiralty could be safely left in the hands of the Minister of Munitions. It was settled that a meeting between the Minister of Munitions and Lord Derby, each attended by such staff as they required, should be held at the Ministry of Munitions that afternoon, and that the presence of the Chairman of the Man-Power Board, who had offered his services as amicus curiae, should be obtained if occasion arose.

Accordingly, the Minister of Munitions undertook to withdraw from all unskilled and semi-skilled men their badges and certificates, and to release those under 31 years of age, who were fit for general service, up to 50,000 by the end of January 1917, or such near-by date as the conditions of the Military Service Act would permit; excluding those who were employed in the manufacture of steel and its ancillary trades and in shipbuilding. The Army Council undertook to do everything in their power to enrol as many men as possible not fit for general service as Army Reserve Munition Workers, in order to replace the men withdrawn and to reinforce the munition factories, provided that the Minister would do what he could to find substitutes through his Labour Department, among men not fit for general service or women. The Army Council also undertook to instruct all recruiting officers that no man employed in a government establishment, controlled or badged firm should be called to the Colours without consultation with the representative of the Ministry of Munitions. This agreement was approved by the War Committee on 30 November.

The matters relating to the exemption of munition workers being disposed of, the War Committee approved the other recommendations of the Man-Power Board on 21 November. They then took into consideration the question of seeking compulsory powers to direct men over military age, and possibly women, to undertake the duties for which they were most suited. They recognised that this was a matter of great difficulty in view of the existing law, pledges and agreements, and the fact that the Military Service Act was passed only on the distinct understanding that it would not be followed by proposals for

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1 See above, pp. 32, 33. The Man-Power Board was formally dissolved by the War Cabinet on 16 January 1917, and its powers and archives were transferred to the Director-General of National Service. (M.N.S. B./232/9).
compulsory industrial service. But as conditions had entirely changed since the various pledges and undertakings were given, they thought it possible that it might be necessary to ask Parliament and the various interests to whom pledges had been given to reconsider these pledges. Before expressing a final opinion, they directed the Departments to supply the text of any pledges, agreements or undertakings, parliamentary or otherwise, that had been entered into.

On 28 November the military members of the Army Council addressed a memorandum on the supply of men for the Army to the Secretary of State for War, with the request that it might be laid before the Government. It would be impossible after April, 1917, to keep the armies up to strength, unless steps were taken at once to introduce some better system of utilising the manhood of the nation, untrammelled by conditions that in practice nullified to a great extent the object of the Military Service Acts. The monthly intake of recruits was some 20,000 below requirements; and the total number of recruits for 1916 would probably be 95,000 short of the number which the Cabinet Committee agreed in February could be placed at the disposal of the Army by the end of the year.

For the year 1917 they estimated that 800,000 recruits, fit for general service, would be required, and in addition about 140,000 B. I and C. I men.

There were still in civil life over 2½ million men of military age, exclusive of Ireland; given, therefore, a proper organisation of the man-power of the country, there appeared to be no reason why the 940,000 men required should not be forthcoming. They, therefore, suggested that the military age should be raised to 55 years and that all men up to that age should be utilised for such national service as the Government deemed to be essential to the effective prosecution of the war.2

On 30 November the War Committee again considered the question of compulsory national service. In view of the serious military situation with which the Allies were confronted in consequence of the levy en masse in Germany's territories; the invasion of Roumania; the difficult financial situation likely to arise in the

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1 27/Gen. No./5866.
2 The argument is given in detail in a memorandum dated 12 December, 1916. Of the 11,050,000 males employed in July, 1916, 3,352,200 were engaged in trades and industries of relatively small national importance. Recruitment for the Army in 1917 must directly or indirectly be effected at the expense of these less important trades. It could not all be direct, since at the most only 350,000 men so employed were estimated to be fit for general service. Therefore a portion of the labour employed in the less vital trades must be mobilised voluntarily or compulsorily and transferred to essential industries to replace the majority of the young fit men who must be withdrawn from them to maintain the Armies. The balance must be replaced by female labour, by males then unoccupied, or by youths not yet of military age.

In addition a reinforcement of approximately 250,000 operatives had to be provided for the munitions factories.

The problem of recruitment for 1917, reduced to essentials, was to effect the transference of approximately one million persons from the non-essential to the essential industries. Nothing less would enable the Armies to be maintained.
United States of America; and the shortage of merchant shipping and food supplies, the members of the War Committee were unanimously of opinion that the time had come for the adoption of compulsory national service in this country.

The Committee reached the following decisions:

(a) They approved in principle the adoption of compulsory national service for all men up to the age of 60 years.

(b) They appointed a committee with the Minister of Munitions in the Chair, consisting of representatives of the following: the Ministry of Munitions, the Home Office, the War Office, the Local Government Board, the Board of Trade, the Man-Power Distribution Board, the Labour Adviser, and the Food Controller, to work out details, including the minimum age for its application to males; the advisability of extending it to females, including age limits; and the necessary legislation:

(c) The War Committee attached great importance to the enactment of the necessary legislation before Christmas, but they recognised that Parliament must be consulted with a view to a release from any pledges, agreements, and undertakings which would be violated if the schemes actually presented were carried out, and which were entered into under circumstances entirely different from those then existing.

Thus, while the policy of the Government was moving rapidly towards a comprehensive scheme of industrial compulsion, certain craft unions had secured the privilege of exempting their members from military service and recruiting from among them volunteers for the Artificers' Corps of the Army. This privilege was emphasised by the decision to withdraw from all semi-skilled and unskilled munition workers their legal certificates of exemption from military service, although collectively they were essential for the output of munitions, and many thousands of them could not be replaced by any available substitutes. In these circumstances the industrial situation at home was hardly less menacing than the military situation abroad.
CHAPTER III.

DILUTION ON PRIVATE WORK.

I. The Urgency of the Problem.

The Man-Power Board observed in their memorandum of 29 September that the process of dilution had been very unequally carried out in different districts and in different works. They went on to say:—

"The Board regard the carrying forward of this process of dilution as of the utmost importance. It is the only method by which an extension of the age for compulsory service can be avoided. The Board have requested the Board of Trade and the Labour Adviser to his Majesty's Government to confer with employers and trade union leaders as to the extension of the practice of dilution to firms engaged wholly or partially on private work, so as to set free skilled men thus engaged for munitions work. It is essential that a large part of the labour now engaged on private work should be diverted to Government orders or released for the Army."

The enforcement of dilution was confined to munitions work in controlled establishments. Mr. Lloyd George had promised on 25 March, 1915, that the relaxation of trade practices should be required only in relation to work done for war purposes. ¹ The Munitions of War Act limited the legal suspension of restrictive rules and customs to controlled establishments, and they only were legally bound to restore after the war what was suspended.² Outside of these limits dilution was a matter of voluntary agreement between an employer and his workmen. In this way dilution on munitions work had been carried out to some extent in establishments that were not controlled, on the advice of the Ministry's inspectors. Outside munitions a number of agreements had been made between employers' associations and trade unions, at the instance of the Home Office, for the employment of women and girls on operations hitherto restricted to male labour.³ Most of these related to the textile and the boot and shoe industries, and all to industries in which female labour was already established. They followed the lines of the Treasury Agreement of 19 March, 1915. They were expressly limited to the period of the war, at the end of which the employers undertook to restore the normal

¹ At the Treasury Conference with the A.S.E.; see Vol. I., Part II., Chap. IV., Sect. II. The promise was repeated at a conference with the A.S.E. on 24 February, 1916.
² See Vol. IV., Part IV., Chap. V., Sect. V.
³ See Agreements between Employers and Workpeople with regard to the substitution of female for male labour in industries other than the Manufacture of Munitions reported to the Board of Trade up to 25 July, 1916.
practices of the trade, and to reinstate those men who had joined the Forces. It was provided, as a rule, that standard rates of wages should be maintained, but special provision was made for the rates to be paid during training, and in the woollen and worsted industry it was agreed that if a larger number of women were required to replace a smaller number of men, the aggregate wages paid to the women should not be less than the aggregate wages paid to the men they replaced. Joint Committees of employers and workpeople were provided for the interpretation of the agreements and for the settlement of any difficulties which might arise.

As the method by which man-power is converted into military energy, dilution was urgent wherever production was indispensable. But nowhere was the need of it more pressing than in engineering. The demand for munitions, naval and military, was unlimited; the maintenance and repair of plant and vehicles were essential; agricultural machinery was needed to make good the loss of labour on the land; the increasing difficulty in financing purchases of food and war material abroad made it necessary to produce for export as much as possible; finally the development of the artillery, mechanical transport, tanks and aircraft greatly augmented the Army’s need for mechanics. Even if the skill and energy of every man were used in the best and fullest manner, the engineering industry was not equal to these demands. But its power was being wasted, notably in the textile and agricultural machinery branches, so long as skilled men were employed on processes for which unskilled labour was adequate, or the output of factories was restricted because machines stood idle which women or unskilled men could be trained to operate.

On 10 October Mr. Henderson informed¹ the Man-Power Board that he proposed to summon a private meeting of the Trade Union Consultative Committee, reinforced by representatives of the industries specially concerned, to consider the Board’s statement concerning dilution. He would undoubtedly be asked, and would like to explain at the outset, the sense in which the word “dilution” was used. Would the Board be prepared to authorise a statement on the following lines?

“The principle of the Board’s recommendation with regard to dilution is that skilled men, whatever their trade or craft, provided that their skill is required for some industry of national importance or for the technical branches of the Army, ought to be exempted from general military service, and the machinery of enlistment should be so contrived and so controlled as to ensure that this principle is given effect to. The object of dilution, in other words, is not to release skilled men for general military service, but to distribute them over industry in such a way as to make the best use of their skill, and conversely, to transfer to semi-skilled and unskilled men ineligible for military service, and women working under the direction of the skilled men, as much as possible of the work hitherto performed by skilled men themselves. Where

¹ M.N.S. B./232/4.
the supply of skilled men in any trade is greater than the national requirement, the skilled men should first be drafted into corresponding industries for which their skill renders them specially apt, or into a technical branch of the Army. It is only when the industrial requirements of the Army, Navy, and Mercantile Marine have been met, that the balance of the skilled men remaining in a trade should be taken for general military service.”

In reply to Mr. Henderson, the Board offered the following definition on 19 October:

“Dilution, in the sense in which it is used in paragraph 6 of the Board’s Memorandum of 29 September, 1916, is the principle that no skilled man shall perform work which can be performed by a less skilled man, that no young or fit man shall perform work which can be done by a man older or less fit, and that no male shall perform work which can be performed by a female.”

II. The Conference of Shipbuilding and Engineering Unions, 27 October, 1916.

Mr. Henderson met the Trade Union Consultative Committee on 16 October, to consider the extension of dilution to private and commercial work. The general sense of the meeting was in favour of the proposal, provided that it was carried out under the same conditions as existed in controlled establishments. It was agreed to confer with the trades affected in groups. Accordingly, Mr. Henderson summoned a conference of the trade unions concerned in the engineering and shipbuilding industries to discuss with him dilution on commercial engineering work, on 27 October.

After explaining the importance of the problem, Mr. Henderson suggested the following draft proposals as a basis of discussion:

“This Conference of Trade Unions, representative of the chief Unions in the Shipbuilding and Engineering Industries, having considered the recommendation of the Man-Power Distribution Board that the practice of dilution should be extended to firms engaged wholly or partially on private and commercial work, accepts, and agrees to recommend to their members, the principle that dilution shall be extended to private and commercial work, provided:

(1) ‘‘That the employers on their side agree to be bound by:

(a) ‘‘Terms at least as favourable to the workpeople as the Treasury Agreement of 19 March, 1915 (equivalent to the Second Schedule to the Munitions of War Act);

(b) ‘‘The terms of any Orders, including L.2 and L.3, made by the Minister of Munitions as to the remuneration or employment of women or girls on work customarily done by men, or of semi-skilled or unskilled men on work customarily done by skilled men.”

1 M.N.S. B./232/4.
(2) That in order to ensure that the skill and energy of every man be used in the best and fullest manner a guarantee be given that skilled men set free from private and commercial work as a result of dilution, shall not be taken for general military service as long as they are required either for munitions work or for technical units of the army, in which their special skill will be best utilised.

(3) That men of military age, who are fit for general military service, are not introduced in place of men displaced under this scheme.

"This Conference, in the absence of legislation, also urges the Man-Power Distribution Board to make arrangements that the terms of all agreements entered into in accordance with the above scheme shall be duly registered with a Government Department, with a view to the restitution of trade union conditions after the war.

"This Conference is also of the opinion that the work of the Man-Power Distribution Board, in carrying out a general scheme of dilution throughout industry, would be greatly facilitated by the institution of a system of local Committees on which Labour is adequately represented."

After reading out these proposals, Mr. Henderson urged that dilution should be extended by voluntary agreements between the trade unions and the employers. The work ought, if possible, to be done without fresh legislation, which would involve delay and might take a form not acceptable to Labour.

In the discussion which followed, opposition was not slow to appear. Pledges had been given in abundance, but they were continually broken and never so flagrantly as in recent months. The Treasury Agreement had not been carried out. The statement of the Prime Minister buttered no parsnips. Skilled men were still being taken for general service. The recruiting officer was a law to himself. Guarantees were useless unless means were provided to secure their fulfilment. There were scores of local committees, but they were only ornamental unless they were given power. They must have administrative control, and Labour must be adequately represented on them. Until the Government redeemed its pledges any extension of dilution would be bitterly opposed.

Mr. Henderson tried to meet the opposition by changing the last two clauses in his proposals from expressions of opinion to conditions which must be satisfied before dilution was extended to private work. Mr. Dawtry, however, moved:

"That this Conference decline to vote on the resolutions proposed pending the setting up of central and local committees representative of the trades concerned, having administrative control of dilution of commercial and private work, and the taking of skilled men for the Army."

Mr. Henderson pointed out that the Man-Power Board was in effect the Central Committee appointed by the Government to deal with these questions; to ask for another committee was merely
wasting time. He then informed the conference that the Trade Card Scheme had been brought to the notice of the Man-Power Board, who were then making arrangements for putting it into operation and reviewing under their authority the withdrawal of badges. On hearing this Mr. Dawtry withdrew his motion, and it was agreed to adjourn the conference until the Labour Adviser had obtained from the Man-Power Board definite information as to the putting into operation of the Trade Card Scheme and better arrangements with regard to the debadging of skilled men, and until a report was received as to the composition of the local committees responsible for giving effect to dilution on private and commercial work.

III. The Ministry’s Scheme for dealing with Labour Enlistment Complaints.

The steps which the Man-Power Board proposed to take to meet the situation indicated by this conference and the intervention of the Sheffield strike and the Trade Card Agreement with the A.S.E. have already been described. In the meantime the Ministry of Munitions, in consultation with Mr. Henderson, was engaged in working out a scheme of central and local machinery for investigating and adjudicating on complaints of improper enlistment or victimisation in connection with substitution or debadging. Not the least unfortunate consequence of the Sheffield strike was the suspension of this scheme. For, as the sequel will show, it was an essential part of a fair and comprehensive system for administering the exemption of munition workers from military service.

The Ministry’s object was to give Labour some direct administrative control without impairing the Department’s responsibility. Advisory powers, as experience had abundantly shown, were inadequate and unsatisfactory. The suspicion remained that, whatever advice might be offered, it would be set aside by some official; and the divorce of judgment from action encouraged partial investigation and the expression of impracticable opinions. On the other hand, if administrative powers were given to Labour, there was a risk of introducing into the departmental machinery wheels that would not work. The solution of the problem was found in setting up a section in the Labour Department of the Ministry under the direction of a representative trade unionist appointed by the Minister, and local committees with clearly defined powers subject to his instructions. The Director had the assistance of the departmental staff on the one hand, and labour representatives on the other. In the local committees the local officers of the Department were balanced by representatives of the trade unions nominated by the Labour Adviser. It was the duty of the labour representatives to receive complaints, ascertain their accuracy, and report what action should be taken by the committee. The dilution officer took what executive action might be necessary. Any member of the committee, who was dissatisfied with the action it recommended,

1 See above, pp. 31 ff.  
2 M.W. 143944/4.  
3 See below, pp. 88 ff.
had the right to require the dilution officer to lay the case before the Director of the section at headquarters.

This scheme was approved by Dr. Addison on 9 November. Accordingly, the following statement was submitted to the conference summoned to consider on 22 November the extension of dilution to private and commercial work:

"In order to give effect to the Prime Minister's pledge with regard to the enlistment of skilled men, the following arrangements are proposed:

"Central and local machinery will be established under the authority of the Minister of Munitions for dealing with allegations of victimisation by employers either in substitution or in debadging, and with allegations of improper enlistment. The local machinery will consist of the Chief Dilution Officer for each Employment Exchange area assisted by a Committee consisting of representatives of the War Office, the Admiralty and the Board of Trade, and an equal number, i.e., not less than three representatives of Labour, nominated by the Labour Adviser. It will be the duty of the Labour representatives to receive, investigate (either personally or through reliable agents), and to bring before the Committee all cases of victimisation or improper enlistment in the debadging or substitution of men which may be brought to their knowledge. The Dilution Officer will be the executive officer for carrying out the decisions of the Committee, and in the case of a difference of opinion in the Committee as to the action to be taken, the matter will be referred to the central machinery. The central machinery will consist of a Section in the Labour Supply Department of the Ministry of Munitions to be established for the purpose, the personnel of which will be settled in consultation with the Labour Adviser and will include representatives of Labour and will be associated with the Recruiting Department of the War Office. The Minister of Munitions proposes to appoint Mr. Shackleton as Director of the Section."

With this scheme before it, the conference on 22 November approved by a majority the principle of dilution on private and commercial work. But the A.S.E. refused the invitation to attend this meeting. They objected to negotiating about dilution along with trade unions which in their opinion had far less to lose by accepting it, and in the Trade Card Scheme they had obtained what they considered adequate safeguards for their members.

The conference pressed for certain amendments in the Ministry's scheme, which were placed before the Government by a deputation on the afternoon of the same day.\(^1\) The deputation opened by drawing attention to the absence of the A.S.E. from the conference, and asked for an undertaking that more favourable terms would not be given to any other society in separate negotiation. To this Mr. Montagu agreed, after it had been made clear that the Trade Card Scheme could not be extended to all the unions with which the Government was seeking an agreement on dilution.

\(^{1}\) Hist. Rec./R./324/9.
The deputation then explained the amendments. The conference
desired that the representatives of Labour on the local committees
should be appointed directly by the trades concerned (as on the Labour
Advisory Boards) instead of being nominated by the Labour Adviser.
Similarly, the appointment of labour representatives at headquarters
should be in the hands of the engineering and shipbuilding trades.
Further, they asked that pending the decision of a man's case he
should remain in civil employment; and if a man was released from
the Army for civil work, he should be employed as a civilian and
not under military discipline. Finally, they desired an assurance that
the machinery proposed would apply to all workmen, whether engaged
on public or on private work.

The last three requests were granted, but there appeared to be
some misunderstanding as to the nature of the local committees and
the central department. Mr. Montagu therefore wrote a letter\(^1\) the
next day, in which he explained that the local committees were not
intended to be advisory bodies, like the Labour Advisory Boards,
called together from time to time, but they should, each within its
own sphere, have administrative duties which would keep them in
continuous working. The duty of receiving and investigating com-
plaints would fall mainly to the labour members, who must, therefore,
be whole-time officers, and as such paid from public funds. Much of
their time would be spent in travelling from one centre to another to
examine cases on the spot—a more effective procedure than the study
of documents at a distance. Each committee should be able to deal
with a large area, but if any committee found its work too heavy the
Ministry was prepared to divide the areas and create new committees.
But the multiplication of committees would lead to inconsistent
decisions, and add very greatly to the work of the central department.

If the committees were to be few and their areas large, it followed
that the election of the labour representatives by the trades concerned
would not be practicable, even if election was likely to produce the
right men. It seemed better, therefore, that the Labour Adviser should
nominate them, though he would, of course, in making his choice,
consult the principal unions concerned.

The central authority would not be a committee, but a section of
the Labour Supply Department of the Ministry, and the two labour
representatives, who would be included in its staff under Mr. Shackleton
as Director, would be executive officers of the Ministry, responsible,
through the Director, to the head of the Department, and paid from
public funds like other officers.

The scheme as amended was then embodied in the agreement, into
which the trade unions were individually invited to enter with the
Minister of Munitions and the Labour Adviser concerning dilution on
private and commercial work, together with the other conditions
which had been proposed at the conference of 27 October.\(^2\)

On 6 December, the Labour Enlistment Complaints Section of the
Labour Supply Department was constituted with Mr. (later Sir David)
Shackleton as Director, and Mr. F. R. Lovett, as Assistant Director.\(^3\)

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\(^1\) M.W. 143944/4.  \(^2\) See Appendix II.  \(^3\) M.W. M.S. 7412.
IV. The Negotiations with the A.S.E., December, 1916.

While the other trade unions were considering the agreement into which they had been invited to enter concerning dilution on private and commercial work, Mr. Montagu asked the Executive Council of the Amalgamated Society of Engineers to discuss the question with him. The meeting was arranged for 12 December; but in the meantime the change of Government had taken place, and Dr. Addison, having become Minister of Munitions, presided. He laid before the Council the form of agreement, and explained under the seal of confidence the urgent reasons which rendered it imperative for the Government to press for the extension of dilution. The A.S.E. pointed out in reply that no statutory sanctions were contemplated in the form of agreement submitted to them. It proceeded upon the basis of the Treasury Agreement. The safeguards and guarantees of the Munitions of War Acts, such as they were, did not apply to the establishments in which they were asked to surrender their rights and customs. In their opinion it was very necessary that dilution on commercial work should have the same legal sanction as dilution on munitions work, and the same statutory pledges should be given as regarded restoration and reinstatement. They also suggested that the extension of the War Munition Volunteer Scheme, provided by the Trade Card Agreement, ought to give the Ministry all the skilled labour that was available. Under this scheme the Ministry could transfer any engineer subject to the Military Service Acts from private work to munitions. To this suggestion the Minister replied that, if this were done, industries might be destroyed which ought to be kept alive to meet the present, and still more the future, requirements of the country. The meeting was then adjourned until 18 December, in order to give the Council time for fuller consideration of the proposals.

On 18 December the Council of the A.S.E. opened by stating that they could not accept the agreement. They had urged their members to agree to dilution on the strength of Mr. Lloyd George's pledge, often repeated, that dilution should be limited to war work. Was it fair to ask them to take the responsibility of relieving the Government of this pledge? Moreover, if dilution was extended to uncontrolled establishments, there was no legal power to guarantee the restitution of pre-war conditions. In reply to the question, whether they would accept the principle of extending dilution to commercial work if statutory guarantees were given, they declined to say more than that they would consider such a proposal carefully.

In the discussion which followed, the Council asked for a statement, which they could circulate to their members, setting out the grounds on which the Ministry put forward their request, and showing how far the Ministry was prepared to go in safeguarding restitution. Not only should it be provided that the employers should not make a profit out of dilution, but Munition Volunteers transferred from commercial work

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1 M.W. 58424/120. The reasons given by Dr. Addison were not taken down by the stenographer.
2 Ibid.
should be guaranteed reinstatement. The Minister tried to reassure the Council against their fear that their skilled members might have difficulty in finding work after the war. The demands of reconstruction would be enormous, and the productive capacity of the metal industries was multiplying. The A.S.E. insisted, however, that as soon as the war was finished, all labour introduced under schemes of dilution must be dismissed. If there was room for any of it, they would be ready to negotiate with the employers, but only after it had been cleared out of the factory. Dr. Addison assured the Council that the pledge to restore pre-war conditions would be kept in the spirit and in the letter.

On 8 January, 1917, the statement asked for was sent to the A.S.E.¹ 15,600 skilled engineers were required immediately by the Ministry of Munitions, and their prospective demand amounted to 16,500. These needs could only be met by setting skilled men free from private work. But it would be disastrous to feed the munitions industries by starving the rest.

"The maintenance of output on private and commercial work is essential in order to support the national credit, to secure the country against any further loss of openings for foreign trade which may, if production falls, lapse in favour of neutral, or even of enemy competitors, and to guard against any diminution in the capacity of the machinery required in the manufacture of food and clothing, since any such diminution must directly contribute to a further increase in the present cost of living."

Dilution on private and commercial work was the sole means of securing the end in view. But the Government were not asking the skilled engineers to agree to such an extension of dilution without proper safeguards. These, it was suggested, fell into three main divisions.

"In the first place, it will be necessary to secure that departures from existing rules and customs, which may be found necessary in the case of private and commercial work, should be expressly authorised for the period of the war only . . .

"In the second place, it will be necessary to apply to the women or girls who may perform work of a private or commercial character customarily done by men, and to semi-skilled or unskilled men who take up work of this character customarily done by skilled men, provisions similar to those embodied in the Orders and Circulars issued from time to time by the Ministry of Munitions in relation to war work.

"In the third place, it will be necessary to secure that any workman who may be transferred from an establishment under these dilution arrangements should be guaranteed the same right of priority of re-employment there as any workman who has left that establishment for service with the Army and Navy.

"Further, the skilled engineers concerned may rest assured that the introduction of dilution on private and commercial work will not be permitted to be used as a means for increasing profits retained by firms engaged on this work."

¹ M.W. 58424/120.
V. The Growth of the Munitions of War (Amendment) Bill, 1917.

The conferences with the Council of the A.S.E. had shown that no substantial progress could be made without an Act. Dr. Addison therefore agreed on 20 December that a Bill should be drafted to enable the Ministry to effect dilution upon private work.\(^1\) It was also decided to proceed without any further discussion of the matter with the A.S.E., lest they should force the issue by taking a ballot of their members, which would almost certainly result in an adverse vote. The Minister of Labour, Mr. Hodge, who was at once consulted, concurred in this policy.\(^2\)

The Bill originally contained two operative clauses, which ran as follows:—\(^3\)

(1) Where the Minister of Munitions is satisfied that it is of national importance that all or any of the provisions of the Munitions of War Acts, 1915 and 1916, should be extended to work of any particular class or classes, or to all or any work in any particular establishment or class of establishment, he may issue a certificate to that effect and may by order direct that those provisions shall be extended accordingly; and thereupon those Acts or the provisions thereof set forth in the order shall have effect as though references to munitions work included references to the work specified in the order.

(2) Para. 3 of the Second Schedule to the Munitions of War Act, 1915 (which relates to priority of employment after the war) shall have effect as though the following words were added at the end thereof: “or who have been assigned to some other establishment by the Minister of Munitions in pursuance of section 6 of this Act.”

A covering memorandum\(^4\) explained that the object of the Bill was to enable the Ministry to make good the shortage of engineers by carrying into effect a scheme of dilution upon private work, and thus setting skilled men free to undertake government work. But this could not be done without the goodwill of the trade unions concerned. It was essential, therefore, that any provision to secure the release of these men must at the same time provide that for the sacrifice required from the men there would be compensating sacrifice on the part of the employers. Consequently, as a set-off to the dilution proposed, provision should be made, in establishments where it was carried out, for the limitation of employers’ profits, for the keeping of a record of changes in trade practices, and for a guarantee of restoration under the Second Schedule of the Munitions of War Act, 1915, and in addition, for the giving priority of re-employment to men transferred as War Munitions Volunteers, in the same way as priority was secured for the re-employment of men taken from the shops for the Colours. If, however, guarantees were afforded under these heads, it seemed equitable that provision should also be made to prevent strikes in the factories affected, and that section 7 of the Act of 1915, dealing with leaving certificates,

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\(^1\) M.W. 58424/120. \(^2\) Ibid. \(^3\) M.W. 164540. Draft dated 19 February, 1917. \(^4\) Ibid.
should be applied. In this way it would be possible to protect private industries which were essential from the confusion due to loss of men or stoppage of work.

The first clause of the Bill empowered the Minister to apply any or all of the provisions of the Munitions of War Acts where in his opinion it was of national importance that those provisions should be applied. The second clause secured priority of re-employment to War Munitions Volunteers. The Ministry did not propose to deal with the limitation of the profits of establishments certified under the Bill, but to transfer this power to the Inland Revenue Department under section 20 of the Munitions of War Act, 1916.

Although in the opinion of Sir F. Liddell, who drafted the Bill, it was not possible to apply the provisions of the Munitions of War Act, 1915, relating to suspension of rules, without bringing into force at the same time the provisions of that Act relating to limitation of profits, the Ministry considered it prudent, after consultation with Mr. Henderson, to make this connection explicit in the wording of the Bill. Accordingly the following proviso was introduced at the end of clause 1.

Provided that it shall not be lawful by any such order to extend to any establishment or class of establishments the provisions of the Munitions of War Act, 1915, relating to the suspension of rules, practices and customs tending to restrict production or employment, unless the provisions of that Act relating to the limitation of profits and to undertakings to carry out the provisions of the Second Schedule to that Act are also so extended.

About the same time a new clause was introduced empowering the Minister of Munitions to make wages awards binding upon minorities by the extension of awards affecting, or agreements made by, employers employing the majority of persons engaged on, or in connection with, munitions work in any trade or branch of trade.

Where an award as to a change in the rate of wages payable to persons engaged on or in connection with munitions work has been made either under Part I of the Munitions of War Act, 1915, or in pursuance of an agreement between representatives of employers and workmen, and the Minister of Munitions is satisfied that the award affects the majority of the employers and the persons engaged on or in connection with munitions work in any trade or branch of trade either generally or in a particular district, the Minister of Munitions may by order direct that the award shall be binding on other employers and persons so engaged, and in such case the award shall be binding not only on the employers and persons so engaged affected by the award, but also on such other employers and persons as aforesaid in like manner and with the like consequences as if the award had been made under Part I of the Munitions of War Act, 1915, and had been made in respect of a dispute affecting such employers and persons so engaged.

1 M.W. 164540/2. 2 M.W. 164540. Draft dated 1 March, 1917.
3 M.W. 164540/3. This clause first appeared in the draft of the Bill, dated 1 March, 1917. As printed below the clause includes several amendments designed to secure elasticity. (M.W. 164540.)
This novel and important provision originated in the following way. Hitherto the awards of the Committee on Production had concerned individual firms, or at most local associations of employers. This was in accordance with the practice which existed at the outbreak of war, nor did the variety of local circumstances allow of any more general procedure. In the course of 1916, however, such anomalies as the Committee on Production intended to deal with had been settled; and further demands for advances in wages were almost invariably based on one and the same ground—the increase in the cost of living. Consequently the numerous awards given by the Committee during the latter half of 1916 were in practically identical terms. Under these circumstances employers, trade union officials, and the Committee on Production, which was overburdened with work, alike desired to short-circuit the procedure, and an agreement to this effect was made in February, 1917, between the Engineering Employers' Federation and the unions connected with the engineering and foundry trades. This agreement provided for the suspension of the existing practice and its replacement by a general award under the Munitions of War Acts and of national application to all federated firms in the branch of trade concerned; it was also provided that the Committee on Production should in the months of February, June, and October, after hearing parties, consider what general alteration in wages, if any, was warranted by the abnormal conditions then existing and due to the war.

The A.S.E. made it a condition of their adherence to this agreement that any national award given to federated firms should be extended to all employers in the trade or trades affected; and the other parties to the agreement recommended that the Government should make arrangements to secure this end. After conferring with Mr. Shackleton and Sir George Askwith, Mr. Kellaway gave the required assurance, reserving for the Minister's consideration the precise operation of the proposed extension, as well as the method by which it should be carried into effect. By the new clause power was asked for to fulfil this promise.

But apart from any such stipulation it seemed desirable, in view of the steady rise in the cost of living, affecting all classes, but most of all the poorest, that some speedier means should be found for adjusting wages than the slow process of arbitration between individual firms and groups of workers. The national award made in the engineering and foundry trades appeared to present an opportunity for accelerating the machinery of settlement. Other trades were following the example set by the engineers. If the awards which resulted were extended under the powers proposed to be taken in the new clause, they would soon cover nearly the whole of the ground for which the Minister of Munitions was responsible.

Hitherto, the only power which the Minister possessed to extend the scope of an award in the case of men was the power bestowed by the Fair Wages Clause; but the operation of this clause was slow, and the sanctions behind it were only such as the various Contracts Departments could bring to bear. It seemed desirable to establish
a more expeditious procedure and a stronger sanction. The most
direct and effective way of doing this was by Statutory Order.1

VI. The Second Reading of the Munitions of War Bill,
27 April, 1917.

The War Cabinet authorised the Minister to proceed with the Bill
on 22 March, 1917. It had already been held back in view of the
withdrawal of the trade cards, and the difficulties and dangers involved
in that action rendered further delay advisable. Consequently the
measure was not brought before the House of Commons until 27 April,
when Mr. Kellaway, then Parliamentary Secretary to the Ministry,
moved the Second Reading. Although the House was asked to grant
powers to the Minister which would enable him to apply the provisions
of the Munitions of War Acts to any industry or establishment in the
country, very few members attended the debate. At one time, indeed,
only seven members were present.2 The debate, no doubt, took place
on a Friday afternoon, but the little interest that it awakened was a
measure of the extent to which Members of Parliament had fallen out
of touch with their constituencies and were unaware of the volcanic
forces which were presently to break loose in the great centres of
industry.

Mr. Kellaway explained in a lucid and conciliatory speech3 the
provisions of the Bill, and foreshadowed three new clauses which the
Government intended to introduce, in order to expedite arbitration, to
prevent rate-cutting, and to remedy a defect in the administration of
leaving certificates. He proceeded to justify the primary object of the
Bill. Dilution had enabled the State to augment in a marvellous
degree the output of munitions of war. The constriction of the
struggle made it essential that the State should now receive similar

1 It may be observed that the new clause carried out in part a recommendation
made by the Industrial Council in their report, dated 24 July, 1913. This body
was requested to enquire and report inter alia, how far and in what manner
industrial agreements, which were made between representative bodies of em-
ployers and of workmen, should be enforced through a particular trade or district.
The majority of the Council said:

"We have come to the conclusion that, subject to an inquiry made by an
authority appointed by the Board of Trade, an agreement entered into
between associations of employers and of workmen representing a sub-
stantial body of those in the trade or district should, on the application of the
parties to the agreement, be made applicable to the whole of the trade or
district concerned, provided that the agreement contains conditions to
secure—

(a) That at least . . . days' notice shall be given by either party of an
intended change affecting conditions as to wages or hours; and

(b) That there shall be no stoppage of work or alteration of the conditions
of employment until the dispute has been investigated by some agreed
tribunal, and a pronouncement made upon it."

The provisos were intended to compensate the small firms to whom the
application of the agreement might otherwise be very onerous. They were
naturally omitted in the new clause of the Munitions of War Bill.

2 Parliamentary Debates (1917), H. of C., XCII, 2779.
3 Ibid., 2741 ff.
powers to prevent the waste of skilled labour on private work. In particular, the submarine attacks on merchant ships made the transfer of every available skilled man to shipbuilding imperative; it was no less imperative that every idle machine in the agricultural implement trade should be set to work. Production, more production, and yet more production, must be the aim of the country. To waste skilled labour anywhere was a sin that could not be forgiven. In 1915, it was true, Mr. Lloyd George had said that women should not be introduced on private work. But then no one anticipated the duration of the war or its effect on private industries. The war had a way of upsetting the circumstances under which pledges were given. A man would be blind who refused to recognise the change. Twenty-eight of the principal trade unions concerned had accepted the principle of extending dilution to private and commercial work; and although the Amalgamated Society of Engineers were not parties to the agreement, there was no reason to believe that they would not show themselves as patriotic as other great trade unions. The main clause of the Bill did little more than give statutory sanction to the agreement which these unions had made voluntarily.

Mr. Pringle then moved,¹ as an amendment, "that this House declines to proceed with the Second Reading of the Bill until the restrictions upon the freedom of employment of munition workers are removed." The policy of dilution, he said, had never been in dispute. Controversy had arisen only over the conditions under which dilution was introduced. The safeguards, designed to secure the restoration of pre-war rules and customs, were not adequate in the existing Acts; but hitherto a working model of these practices had been retained in private establishments. If this model now vanished, nothing would remain but records, a flimsy foundation on which to rebuild what had been sacrificed. Moreover, the excess profits duty had cancelled any compensation which the restriction of profits under the Munitions of War Act had afforded to the workman. It appeared, indeed, that the position of controlled establishments was now more favourable than that of other undertakings. But the main objection to the Bill was the power which enabled the Minister to extend the leaving certificate to private industries. Section 7 of the original Act had destroyed all harmony between employers and workmen. As the Minister of Labour had once urged, it tied the workman to his employer. Discontent, sometimes breaking out into open revolt, had resulted, because workmen could not satisfy a munitions tribunal that it was in the national interest that they should change their employment. It might be necessary to place some restriction on the freedom of the workman. But the onus of proof should rest upon the employer, as the Minister of Labour had himself said, though he now backed this Bill. The employer ought to show that the services of the workman were essential to his establishment. The relaxation or withdrawal of Section 7 should therefore be made the condition of any extension of the powers of the Ministry of Munitions.

¹ Parliamentary Debates (1917), H. of C., XCII, 2753 ff.
Mr. W. C. Anderson seconded the amendment.\textsuperscript{1} The Ministry was, in his opinion, extending the Act at a very difficult time and at an unfortunate moment. There had been misunderstanding about the trade cards; there was increasing difficulty in obtaining food in some places; the munition workers were nervous and irritable owing to years of overwork. The Act should be amended rather than extended. The policy of coercion was not a good policy. If he were to read some of the cases tried by Munitions' Courts, the House would, perhaps, understand why there was an under-current of bad feeling on the Clyde and on the Tyne, in Barrow, Sheffield, and Coventry. He proceeded to tell how women had been fined at Coventry for losing time, how leaving certificates were abused, how frivolous cases were brought into Court by employers. Out of 965 cases taken before the Sheffield tribunal in March, 254 were dismissed as trivial or not proven; 256 were, apparently, so unimportant that they were adjourned on probation, the worker being given a word of caution. He would read an account of a recent case, written by a woman assessor to the tribunal\textsuperscript{2}:

"Then came the last of all—a thin, haggard woman in black. She had missed two half-days and one whole day, and had nearly always been late in the morning. She was asked if she admitted her absence and unpunctuality, and in a dull and listless tone she answered, 'Yes,' and said no more. 'Same fine' questioned the chairman, with a glance at me; but I felt there was something more behind that woman's look, and begged him to ask her if she could explain her absences, or offer any excuse. He did so, and the woman said, 'My baby was ill,' and wept. 'Did you stay at home to take care of it?' I asked. 'I had to,' she said; 'the granny was afraid to be left with it.' She wept again, and no one spoke. It was a grief so real that for a moment we all felt we could not speak. Then, 'Have you lost your baby?' I asked. The woman nodded and said, 'Yes, it died.'"

The chairman, of course, dismissed the case; but the point was, why was this woman ever brought before the court? Good firms did not require the Munitions Court, but bad firms were continually appealing to it to back up their own bad management.

In the debate which followed two points only need be noticed. One Member, in his enthusiasm for dilution and the results of women's labour, said that the Government's pledges to restore the practice ruling in the workshops prior to the war could not but be treated as scraps of paper in the larger interest of national efficiency.\textsuperscript{3} Mr. Wardle,

\textsuperscript{1} Parliamentary Debates (1917), H. of C., XCII, 2760 ff.

\textsuperscript{2} It may be argued that Mr. Anderson ought not to have cited this case, nor ought it to be quoted here. Hard cases make bad law. But the sequel is hardly intelligible unless cases such as this are borne in mind. No doubt the hardships consequent upon the Munitions of War Act were exceptional and trivial compared with the suffering caused by Military Service. But they were frequent enough to inflame the temper of large bodies of workpeople; and unless a policy of coercion, however mild, can reduce the misuse of coercive powers to negligible proportions, it risks losing all its gains, and far more, in a single upheaval.

\textsuperscript{3} Parliamentary Debates (1917), H. of C., XCII, 2790.
then Leader of the Labour Party, stated that he did not intend to oppose the Bill, since he had received no representations from any of the trade unions concerned, that opposition should be offered.\textsuperscript{1} On a division, Mr. Pringle’s amendment was lost by 100 to 10. The Bill was then read a second time and referred to a Committee of the Whole House.

\textbf{VII. The Munitions of War Bill in Committee, 7 May, 1917.}

The Bill was considered in Committee on 7 May, and the following amendments were made or proposed.\textsuperscript{2}

(1) Clause 1 was so amended\textsuperscript{3} as to provide that, if the Munitions of War Acts were extended to work other than munitions work, they should be applied in their entirety, since a fear had been expressed, lest the Minister in the exercise of his discretion should apply only those parts which were favourable to the employers, omitting those which were intended to compensate the workmen.

Mr. Pringle proposed\textsuperscript{4} that in no case should the leaving certificate provisions be applied if the Acts were extended, and he obtained substantial support from various quarters. Since the second reading members had received numerous resolutions from bodies of workmen and employers, protesting against their inclusion under the Acts. Hitherto, they had overcome their difficulties without the assistance of the leaving certificate. Why then should Section 7 be imposed upon them now? If the Government considered that the exercise of these powers might prove necessary, let them be kept in reserve until their necessity was established. But they should not be applied except by laying some Order on the Table of the House, which would give the House an opportunity of discussing the matter. Moreover, the Bill did not indicate how far the Ministry intended to go in extending the Acts. Would textile or agricultural workers, for example, be brought within their scope?

Mr. Kellaway assured\textsuperscript{5} the House that the Ministry had no intention of including the textile industries or agriculture; but they did want to apply the Acts to the manufacture of textile and agricultural machinery and to other industries of great national importance. He declined, however, to make any concession in respect of Section 7, beyond introducing further safeguards to prevent abuses either by tribunals or by employers. If that provision were entirely rescinded, the Government could not possibly undertake the responsibility of providing the Army with munitions. That was the considered opinion of those men who were responsible for the production of war material for the Army. Further, he had been told by a member of a deputation from the A.S.E. that, though at first there was a great deal of dissatisfaction with the Munitions of War Act, on the whole it was working well now and they received comparatively few complaints.

\begin{footnotes}
\item[2] For the Bill as amended in Committee, see Appendix IV.
\end{footnotes}
He was supported by Mr. G. Terrell, who said\(^1\) that Section 7 was the sole provision of the Act that benefited the employer, and there was no evidence that it had not worked very well. Any interference with Section 7 would affect the continuity of labour in the factories, and must result in a loss of output. On a division Mr. Pringle's amendment was lost by 35 to 92.\(^2\)

Mr. Pringle also proposed\(^3\) that the Acts should only be extended where the Minister had made an agreement authorising such extension with the trade union or unions representing the workers affected thereby. The basis of the original Act was a bargain with the unions concerned. The Act should only be extended on the same principle. Mr. Kellaway refused to accept the amendment, since it would enable a single union to block the application of the Bill; and it was negatived without a division.\(^4\)

(2) Clause 2 was so amended\(^5\) as to secure priority of re-employment after the war to workmen who had served with the Colours over those who had been transferred as War Munition Volunteers.

(3) In Clause 3 power was taken to extend awards relating not only to wages, but also to hours of work or other terms or conditions of employment\(^6\). The Clause was also redrafted in order to provide greater elasticity of application.\(^7\) It was desirable that a certain discretion should be left to the Department in making Orders under the Clause. The awards which it was proposed to extend would apply directly, as a rule, to large federations of employers, who had been in the habit of acting together and of giving advances at the same time and of the same amount. But it might well happen that a non-federated employer had anticipated the action of the federation in his trade by giving advances at an earlier date, or of a larger amount, or on a different basis. It was desirable, therefore, that the Department should have power to take into account the wages actually paid, and the amounts, dates, and forms of previous advances. On the other hand, cases might occur in which even the addition of the general advance would still leave the wages paid by a non-federated employer below the general level of the trade.

(4) A new clause\(^8\) was introduced to expedite arbitration. Delay in settling differences had caused much feeling, which was aggravated by the prohibition of strikes and the restrictions of Section 7. In introducing the Bill, Mr. Kellaway had admitted\(^9\) that what was regarded as the dilatory dealing with a dispute caused more irritation among the workmen than the matter in dispute itself. Accordingly, clause 4 empowered the Minister of Labour to make regulations with respect to the reporting of differences under section 1 of the Munitions of War Act, 1915, and with a view to preventing undue delay in negotiations for settling such differences to prescribe the time within which any such difference must be reported to him.

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\(^1\) *Parliamentary Debates* (1917), *H. of C.*, XCIII., 818.


\(^3\) *Ibid.*, 831.


\(^7\) *Ibid.*, 841.

\(^8\) *Ibid.*, 842.

(5) Clause 5 contained the promised amendments concerning leaving certificates.\(^1\) A remedy was provided for the grievance, referred to by Mr. Anderson\(^2\) on the Second Reading, that a workman, who had left his employer without a certificate, could not obtain employment after six weeks, because he could not produce a certificate either from his last employer or from the tribunal. It was enacted that in such a case the employer should, on application from the workman, issue to him a certificate that he was free to accept other employment.

It was also provided that if an employer refused or neglected to issue a leaving certificate, the tribunal should itself issue a certificate or order the employer to do so, unless it was satisfied by the employer that his refusal or neglect was not unreasonable. Thus the onus of proving that it was to the national interest that a workman should be retained in a particular employment was to some extent thrown upon the employer.

(6) Clause 6 provided\(^3\) that any Order or Regulation made under this Act should be laid before each House of Parliament forthwith.

(7) A new clause\(^4\) was introduced to prevent rate-cutting. The immediate cause of the recent strike at Barrow\(^5\), which had delayed by nearly three weeks the delivery of munitions urgently needed,\(^6\) was the suspicion that rates once fixed had been unfairly cut down. Although Mr. Lloyd George had given a pledge\(^7\) that piece rates should not be reduced anywhere, the Ministry's powers to make this good were very imperfect except in regard to women and those semi-skilled and unskilled men who were covered by section 7 of the Munitions of War (Amendment) Act, 1916. Otherwise the Ministry had to rely on Section 4 (2) of the original Act, which prescribed that no change in the rate of wages, salary, or other emolument to any class of persons employed in a controlled establishment should be made without notice to the Minister, who might thereupon withhold his consent to the change proposed, subject to the power of either party to demand arbitration. This section was obviously ill-adapted to secure the fulfilment of Mr. Lloyd George's pledge. Accordingly, it was now proposed to introduce the following new paragraph into the Second Schedule to the Munitions of War Act, 1915:

5A. Piece prices, time allowances, or bonuses on output, once fixed in the establishment, may not be altered except by express agreement, unless a substantial change in the method of operation or in the machinery, material, or tools is introduced, and where such a change is introduced the altered piece prices, time

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\(^1\) Parliamentary Debates (1917), H. of C., XCIII, 842.
\(^2\) Ibid., XCII, 2761.
\(^3\) Ibid., XCIII, 843.
\(^4\) Ibid., 844.
\(^5\) Ibid., XCII, 2743, cf. 2778.
\(^6\) These included 2 12-inch, 5 9·2-inch, and 8 8-inch howitzers, 12 18-pdr. carriages and 20 to 30 18-pdr. recuperators. The delay in the delivery of the 9·2-inch howitzers and the 18-pdr. recuperators was particularly serious.
\(^7\) At the Trades Union Congress, 9 September, 1915. See Vol. IV., Part I., Chap. III., Sect. V.
allowances, or bonuses on output shall not be such as to be less favourable to the workmen from time to time employed in the establishment.

(8) Finally, provision was made for the compensation of persons who were brought before munitions tribunals on frivolous or ill-substantiated charges. The following sub-section\(^1\) was substituted for Section 22 (1) of the Munitions of War (Amendment) Act, 1916:—

Where a munitions tribunal dismisses any case under the principal Act or this Act, the tribunal shall, unless it sees good cause to the contrary, award costs to the person against whom the complaint is made, and the costs so awarded shall, unless good cause to the contrary appears, include such sum as compensation for the expenses, trouble, and loss of time incurred in or incidental to the attendance of the person against whom the complaint is made before the tribunal and of any necessary witnesses as to the tribunal may seem just and reasonable.

After these amendments had been made Mr. Pringle proposed that the Government should give another day to the Report stage, in view of the absence that afternoon of many members who were interested in the Committee stage. To this proposal Mr. Kellaway consented, and the further consideration of the Bill was postponed until the following Friday. But the Engineers' strike had already begun in Manchester, and before the week was out it had spread from one end of the country to the other. When the Bill again came before the House of Commons three months later, dilution on private work was dead and Section 7 was moribund.

\(^1\) Parliamentary Debates (1917), H. of C., XCIII., 842.
CHAPTER IV.
DEBADGING AND SUBSTITUTION.

I. The Army Reserve Munition Workers' Scheme and Substitution.

The Military Service Act of May, 1916, empowered the Army Council to make arrangements for transferring to the Reserve soldiers whose services were required in civil employment.\(^1\) In order to avert all suspicion of industrial compulsion, pledges were given in the House of Commons that a man so transferred would be perfectly free to go where he liked, to work where he liked, or not to work at all.\(^2\) This condition made the scheme of little use to the Ministry of Munitions, which required a mobile body of workmen, who could be directed wherever they were most urgently needed. The Ministry, therefore, resisted the desire of the War Office to transfer to the new Reserve those soldiers who had already been released from the Colours for munitions work. On 22 June the War Committee decided that for the time being no change should be made, and referred the whole question for discussion to the Admiralty, the War Office, the Ministry of Munitions, and Mr. Henderson.

A conference accordingly took place on 6 July, at which it was unanimously agreed that the men already released should remain soldiers in full possession of their military status, privileges, and emoluments, but in future men should only be released on the understanding that they would pass into the Reserve and work wherever the Ministry required. They would no longer be entitled to the pay and allowances of soldiers, but would receive the district rate together with an allowance from the Ministry, approximately equivalent to any separation allowance to which they might have been entitled as soldiers.

The completion of the new arrangements was held up pending the appointment of the Man-Power Board and the settlement of the differences between the War Office and the Ministry. In the meantime it had become evident that the withdrawal of badge certificates from munition workers on a large scale was not practicable unless substitutes were supplied. The new scheme, therefore, not only provided for the return of skilled men from the Army, to whom alone the old scheme applied, but also for the transfer of unskilled men, unfit for general service, who might be substituted for fit munition workers who were not skilled. Its primary object, indeed, when it was put into operation, was substitution, not reinforcement.

The arrangements for substitution\(^3\) were explained to the Man-Power Board on 13 October, and received their approval. The Ministry proposed to release from munitions work unskilled men under

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\(^1\) See Vol. IV., Part III., Chap. III., Sect. VIII.; Part IV., Chap. III., Sect. V.

\(^2\) Parliamentary Debates (1916), H. of C., LXXXII., 976.

\(^3\) War Office, Circular Letter. 27/Substitution/1. (D.R. 4) dated 26 October, 1916; Evidence given before Man-Power Distribution Board. 13 October, 1916.
the age of 30 fit for general service, their places being taken (1) by men who were for the time being exempted from military service by local tribunals or recruiting officers on condition that they found work of national importance, (2) by men who were serving in the Army in units at home, who were classified as B2, B3, C2, or C3, and were surplus to the requirements of their unit for men of their category and medical fitness. Such men would be enrolled voluntarily as Army Reserve Munition Workers and transferred to Army Reserve W. The Ministry proposed to direct all badged firms to prepare a return of their employees under 30 years of age and unskilled; a copy of this list would be sent to the Headquarters of the Command in which the establishment was situated, in order that the medical examination of the men listed might be arranged. Men who declined to be examined would be regarded provisionally as fit for general service. In the meantime, men who were willing to enrol as Army Reserve Munition Workers would be interviewed for selection as suitable substitutes by officers of the Employment Exchanges, through which substitution would be effected. As soon as the substitute arrived, the Exchanges Divisional Officer would withdraw on behalf of the Minister of Munitions the badge certificate of the man to be released, who would be called up in due course.

This scheme was necessarily complicated and hardly promising. The classes, from which substitutes were to be drawn were not likely to produce men of the strength and endurance required of unskilled labour in many branches of munitions work. Substitution, to which an employer could not sustain a reasonable objection, was never easy to arrange on paper evidence. The Medical Boards, already over-worked, could not examine rapidly many thousands of men. Evasion was not difficult, since the unattested munition worker had, as a rule, two months' grace after the withdrawal of his certificate of exemption, before he could be required to join the Army. Finally, man for man substitution in a large establishment could scarcely avoid the suspicion of unfairness or victimisation. The hopes, therefore, which were built on this scheme in some quarters were not likely to be realised.

The main conditions under which the Army Reserve Munition Workers enrolled, as agreed upon by the Ministry of Munitions, the War Office, and the Labour Adviser to the Government, were as follows:

(1) The agreements signed by these men were of two kinds, the first (A.R.M.W. 1) applicable to men skilled in munitions work, the second (A.R.M.W. 2) applicable to men skilled in other trades and to unskilled men. In both cases the men agreed "to undertake work for war purposes in the employment of any firm of employers which may be named by the Minister of Munitions and to remain in such employment during the war for so long as is required by the Minister."

(2) These agreements entitled the men to a minimum rate of wages—10d. per hour in the case of agreement A.R.M.W. 1, and 7d. per hour in the case of agreement A.R.M.W. 2—and also to certain special allowances. These allowances, together with the sum necessary to make up the difference, if any, between (a) the standard rate of the
district (A.R.M.W. 1) or (b) the rate current at the job upon which
the man was employed (A.R.M.W. 2) and the guaranteed minimum
rate of 10d. per hour or 7d. per hour respectively, were recoverable by
the employer from the Ministry of Munitions.

(3) The allowances were as follows:

(a) Children's Allowance.—An allowance of 2s. 6d. per week if at
the date of signing the agreement the man who enrolled
had four and not more than five children, who being sons
were under 14 and being daughters were under 16 years of
age. An allowance of 5s. per week if the man had six or
more children.

(b) Subsistence Allowance.—A subsistence allowance of 2s. 6d.
per day for 7 days per week, if on investigation the man was
found to have dependents for whose maintenance he was
responsible, and from whom he was obliged to be separated
owing to his being employed by a firm named by the
Minister.

(c) Travelling Allowances.—In the case of workmen who signed
agreement A.R.M.W. 1, travelling allowances in lieu of
subsistence allowance were paid if the man, was employed
within daily travelling distance from his home at the
following rates:—if the journey exceeded half an hour each
way, the value of workmen's tickets and one hour's
travelling time per day at the rate of time-and-a-half; if
the journey did not exceed half-an-hour, the cost of work-
men's tickets only.

(d) Railway Warrant.—A free railway warrant was provided
where railway travelling was necessary to enable the man to
take up the employment assigned to him by the Minister.

(4) These agreements were subject to the understanding that the
man was liable to return to military service at any time that he ceased
to be employed by the firm named by the Minister or if he was ordered
to report himself for service with the Colours by the competent
Military Authority.

The Treasury gave their sanction to this scheme on 1 November,
1916. They pointed out that the children's allowances appeared to
introduce a novel principle in making the wages paid for civilian labour
dependent in some degree on the size of the worker's family; this
principle would have called for further consideration, if the Minister of
Munitions had not been committed to the scheme, which had been
announced in the House of Commons on 25 October.

This scheme was a compromise between the War Munition
Volunteer and the Release from the Colours schemes. The subsistence
and travelling allowances were similar to those of Munition Volunteers,
and were necessary to secure the mobility of the new workers. The children’s allowance followed from the principle laid down on 6 July, that workmen released from the Army under the new scheme should receive an allowance approximately equivalent to the separation allowance, to which they would have been entitled as soldiers. The guarantee of a minimum rate of wages was similar to the provision under which a Munition Volunteer was guaranteed the rate he was earning at the time of enrolment, if that happened to be higher than the rate of the district to which he was transferred. But the guaranteed rate of the Army Reserve Munition Worker being a moderate flat rate, the scheme did not involve either the expense or the complex administration of the War Munition Volunteer scheme, especially where the volunteer was making big earnings on piece work before his transfer. The Army Reserve Munition Workers scheme continued until the end of the war to provide in the main unskilled labour for the production of munitions; and, although it did not develop either as rapidly or as extensively as was contemplated at the outset, it fulfilled a useful purpose in setting free fit men for military service and reinforcing the munitions industries as the supply of unskilled labour from civilian sources was cut off.¹

II. The Procedure for releasing Unskilled and Semi-skilled Munition Workers for the Army, December, 1916.

Before the scheme of substitution, agreed to in October, had begun to work, a more comprehensive scheme, as has already been explained,² was approved by the War Committee on 30 November. The Minister of Munitions agreed to withdraw the protection afforded by the badge certificate from all men classified as semi-skilled and unskilled in government establishments, controlled and badged firms, provided, first, that only men fit for general service and under 31 years of age should be called up, and, secondly, that substitutes were obtained wherever in the opinion of the Ministry substitution was necessary. Moreover, steel production and its allied trades and shipbuilding were excluded from the arrangement, because able-bodied labourers were essential in these industries, and it was imperative that their output should not be hampered in any way. Subject to these conditions the Minister did not anticipate any difficulty in releasing 50,000 men by the end of January; but he pointed out that the possibility of rendering any such number, or; in fact, any appreciable number, available for service by that date depended very materially on his having immediate information of the medical classification of the men brought under the scheme.³

The War Office agreed to these conditions, and undertook to secure the enrolment of as many men as possible as Army Reserve Munition Workers, who would be available either as substitutes or as reinforcements.⁴

¹ See Appendix V.
² See above, p. 42.
Early in December the Admiralty concurred in this scheme, on the understanding that in Admiralty establishments, shipyards, and other firms, more than 75 per cent. of whose output was for the Admiralty, a representative of the Admiralty should decide whether a man could be released and how far substitution was necessary.\textsuperscript{1}

The arrangements for carrying this scheme into effect were unavoidably complicated. Lists of the men classified in their employers' registers as semi-skilled or unskilled must be prepared and forwarded to the recruiting authorities to arrange for their medical examination. The dilution officer must next decide whether the men graded as fit for general service could be released without substitutes or not, and if, as was probable, substitution was necessary to maintain output, what form it should take, and how soon afterwards the release could be effected. In the meantime, soldiers unfit for general service were paraded and invited to enrol as Army Reserve Munition Workers, if they seemed fit for munitions work of any kind. Finally, substitution was effected through the Employment Exchanges and the military authorities were informed when the man could be released.

Medical examination, which hitherto had been optional for men holding certificates of exemption from military service or entitled to the period of grace after the withdrawal of their certificates, was made compulsory by Regulation 45c. of the Defence of the Realm Regulations.\textsuperscript{2}

The most exacting work fell to the dilution officers. Their duty was to decide which individuals could be released in all establishments, except those for which the Admiralty and the Explosives Supply Department\textsuperscript{3} of the Ministry were responsible. They were guided by elaborate instructions and lists of the industries in which it was thought that substitution might be effected with least risk to the output of munitions.\textsuperscript{4} Unskilled men should, as a rule, be released seven days after the offer of a substitute. Only one substitute need be offered for acceptance. No question need be considered other than whether the physique of the substitute was adequate for the work. The release of semi-skilled men required more care. Sufficient time must be allowed for training substitutes, and men should not be released, who, as the result of dilution and training, were engaged on fully skilled work, which normally could not be undertaken by an unskilled substitute even after six months' training. If the efficiency of a substitute was disputed, the matter was referred to the dilution officer.

\textsuperscript{1} Ibid. Letter of Admiralty to Ministry of Munitions (P. 5500/16.)
\textsuperscript{2} 45c. The Army Council may require any person who holds, or in respect of whom an application has been made for, a Certificate of Exemption from Military Service under the Military Service Acts or otherwise or any person who, having held such a certificate, is not for the time being liable to be called up for service with the Colours, to present himself for medical examination, if such person has not already been examined by a Medical Board and, in accordance with the instructions of the Army Council for the time being in force, placed in a medical category.

If any person fails to comply with a requirement under this Regulation, he shall be guilty of a summary offence against these Regulations.

\textsuperscript{3} The lists furnished by the explosives firms were sent to Mr. S. R. Chichester, 6, Whitehall Gardens.

\textsuperscript{4} M.W. 146967/23.
"Dilution officers should bear in mind that the natural reluctance of the particular firms under consideration to release their men must not affect their judgment. A decision must be arrived at on the facts before them, and weight should only be given to such representations of the management as have a direct bearing on the question of output. Dilution officers should, therefore, understand that, although it is realised that a temporary fall of output may result, it will be their duty to exercise their judgment so that such fall of output is not likely to be considerable or extended over any appreciable period, or to affect any article of urgent importance."

The instructions necessarily left a wide margin for the exercise of the discretion of the dilution officer. Not only was it essential to appreciate the complex inter-relations of trades and industries, and the relative urgency of very numerous contracts, but the terms "semi-skilled" and "unskilled" had no precise meaning, and were by no means consistently applied by employers in making the registers of their workmen.

To the officers of the Employment Exchanges fell the duty of communicating with the military authorities, and of supplying as substitutes for the men to be released either Army Reserve Munition Workers or men or women registered in the ordinary way. All this work entailed much clerical labour, and the placing of substitutes was not an easy task.

Instructions, explaining the scheme and specifying the functions of the several departments, were issued by the Ministry of Munitions to the dilution officers on 14 December,¹ by the Board of Trade to the divisional officers of Employment Exchanges on 20 December,² and by the War Office to the recruiting authorities on 23 December.³

In the meantime, the Ministry was preparing the instrument for effecting a general withdrawal of badge certificates from all unskilled and semi-skilled men. The primary object of this procedure was to render those men whom the Ministry decided to release immediately available for the Army. The Military Service Acts granted to the unattended munition worker a period of two months' grace after the expiry of his certificate of exemption.⁴ Even if there was no intention to evade military service, this provision was inconvenient alike to the employer, the workman, and the recruiting officer. It was unsatisfactory for the employer to retain a man in employment after a substitute for him had been provided; and it seemed unfair to refuse him a leaving certificate. It was not easy for the workman to find a new job without concealing the fact that he was liable to be called up in a few weeks. And it was difficult for the recruiting officer to follow the man's movements and secure him for the Army when the period of grace had elapsed. All these difficulties were removed by cancelling the legal exemption and leaving the men at the disposal of the military authorities, as and when they were needed.

A further reason in favour of a general withdrawal was that it afforded the appearance of equal treatment, and diminished, if it did not eliminate, the opportunity for victimisation, to which the method of individual release hitherto followed was obnoxious.

On the other hand, the procedure was open to serious objection in so far as it created the impression that all unskilled and semi-skilled men of military age could be dispensed with, although in some industries even those fit for general service were essential, and in others the procedure was only possible because many were employed who were unfit for general service. Moreover, those who were retained were left without any legal form of exemption from military service—a position which was not likely to allay the unrest in munition works. Finally, the line was by no means clearly drawn between semi-skilled and skilled men, especially where the process of dilution had been carried far.

These difficulties, notwithstanding the requirements of the Army, were so urgent that the risk was accepted by the Ministry. A general instruction, therefore, was issued on 18 December, directing that all men, described as unskilled or semi-skilled on 1 December in their employers' register, must forthwith surrender to their employers, on behalf of the Ministry, any war service badges and certificates issued to them by the Admiralty, the War Office or the Ministry of Munitions. In accordance with the undertaking given by Mr. Lloyd George and Lord Derby, on 16 November, 1915, those who had voluntarily attested were informed that the Ministry of Munitions had now decided that they were more urgently needed in the army than for munitions work. The instruction signed by Lord Derby and Dr. Addison, who had just taken office in the new Government as Secretary of State for War and Minister of Munitions respectively, was exhibited by posters in all government establishments, controlled and badged firms, and the employers were required to take the necessary action.

So disquieting was this announcement to men, who had been led to believe that their work was essential, and were, in fact, indispensable collectively, that on 29 December the Ministry sent to the employers another poster, with the request that it might be displayed in proximity to the General Instruction of 18 December. The poster ran as follows:

MUNITION WORKERS STAY AT YOUR WORK.

The Army must have men fit for general service.

Although your badge is withdrawn, it does not follow—especially if you are over 31—that you are wanted in the Army.

You may be serving your Country better at your present job than in the trenches.

Remember the Army must have munitions in greater quantities than ever.

Your Country relies upon you to answer the call when it comes.

TILL THEN STAY AT YOUR WORK.

1 See Vol. IV, Part III, Chap. II, Sect. X.
2 See Appendix VI; M.W. 17234/80.
3 M.W. 146967/22.
4 Ibid.
III. The Difficulties of Substitution.

This complex procedure of substitution and release, requiring as it did the co-operation of the local officers of three Departments and the frequent transit of documents, disappointed the expectation of speedy results, which had been formed by those who were not acquainted with the detail of administration. Yet it is obvious that a new procedure affecting hundreds of thousands of men and involving the transit of the individual’s papers through not less than eight offices with critical decisions at three points in their course, namely, the medical examination, the confirmation of release and the provision of a substitute, was not likely to work out according to the time-table, even under normal conditions, much less when staffs were improvised and business was overwhelming. A clerical error, the misinterpretation of an instruction, sickness, the congestion of a registry, the accumulation of papers marked to a responsible officer, these and similar accidents might block the process of a document for a week or more with far-reaching consequences. Even in ordinary times it is difficult for a Department of State to make adequate provision to meet the ebb and flow of business, but in time of war waves are thrown up by unseen forces which play havoc with the best laid plans.

The delay in releasing men for the Army from munitions work strained the relations of the Recruiting Department of the War Office with the Labour Supply Department of the Ministry of Munitions and the Employment Department, which had just been transferred from the Board of Trade to the Ministry of Labour. Numerous letters were exchanged between the three Departments, and several memoranda were submitted to the War Cabinet to explain why only 7,000 men were released for the Army by the end of January, 1917, instead of the 50,000 anticipated.1

From these it appears that the principal reason for the slow working of the scheme was the delay in medical examination, as the following figures show:—

<table>
<thead>
<tr>
<th>Number of men reported by</th>
<th>6 Jan.</th>
<th>20 Jan.</th>
<th>2 Feb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) for medical examination</td>
<td>102,058</td>
<td>245,118</td>
<td>376,161</td>
</tr>
<tr>
<td>(2) as medically examined</td>
<td>12,883</td>
<td>—</td>
<td>41,766</td>
</tr>
<tr>
<td>(3) as fit for general service</td>
<td>5,351</td>
<td>8,249</td>
<td>12,664</td>
</tr>
</tbody>
</table>

Release necessarily lagged behind medical examination from the nature of the procedure; nor could all the men found fit for general service be released at short notice, since some were steel workers, who had been perversely summoned before the medical boards, and others were semi-skilled men, whose substitutes required lengthy training before they could be dispensed with. The main cause of the delay

1 M.W. 146967/11 and 31.
was the shortage of medical boards, but this was said to be aggravated by a misunderstanding as to the office to which the lists of men to be examined should be sent.\footnote{M.W. 146967/11 and 31. The Employment Department instructed their officers to send these lists to the Recruiting Officer (C.O. Circ. 2838). The War Office intended them to be sent to the G.O.C.-in-C. Home Commands (A.C.I. 2406). The instructions of the two Departments had not been interchanged owing to the urgency of the scheme, and the Employment Department did not receive a copy of A.C.I. 2406 until 5 January, 1917, when it obtained a copy through the Ministry of Munitions.}

In the meantime, the War Office claimed to have provided more than 70,000 substitutes, of whom the Ministry had made very little use. These were partly men serving in the Home Forces of a low medical category, partly men exempted from military service by local tribunals or recruiting officers on condition that they found work of national importance.\footnote{See above, p. 65.} On investigation, however, more than half of these men proved unfit for munitions work of any kind, and therefore were not enrolled as Army Reserve Munition Workers.\footnote{For example, on 15 November, 1916, 163 men were paraded at Aldershot, of whom not a single man was found to be fit for munitions work. The Employment Exchange officer who made the inspection reported that the men who were paraded included imbeciles and epileptics, while others were afflicted with extreme blindness and deafness, and others again were suffering from varvular disease of the heart and other serious maladies in an acute form (M.W. 146967/10. cf., M.W. 146967/31).} Moreover, about one-fifth of those enrolled were found not to be available after they had been placed by the exchanges, mainly because their medical category had been raised in the interval. The remainder were at the disposal of the Ministry either as substitutes or as reinforcements. But the Ministry was naturally reluctant to use them up in the second way, in view of their commitments under the substitution scheme. A considerable number of men were, therefore, left with their units pending the medical examination of the men whose certificates were withdrawn on 18 December. This delay naturally caused much inconvenience to the military authorities, since the depôts were clogged with men marking time. On the other hand, the Ministry complained that after a man had been placed, an interval of some weeks frequently elapsed before he started work, owing to the complexity of the procedure for release from the Army, and sometimes his transfer was cancelled owing to a change in his medical classification or for some other reason.

Substitution, therefore, made little progress in January, 1917. The process was accelerated in February and March, but it will be observed that by the end of July, 1917, only 34,847 Army Reserve Munition Workers had started work, of whom 22,643 were transferred from the Army to munitions work as substitutes.\footnote{See Appendix V.}

**IV. “The Clean Cut,” January, 1917.**

In the meantime, owing to the urgent requirements of the Army, the War Cabinet had sanctioned a more drastic measure. On 10 January, 1917, the Adjutant-General stated that the number of recruits
taken in 1916 was 305,459\(^1\) below the number fixed by the Cabinet for that year; 470,000 men fit for general service must be obtained by the end of April, 1917, in order to maintain the forces in the Field and to form the new units which had been sanctioned. Every day's delay in providing the necessary recruits meant a corresponding delay in despatching drafts in the spring and early summer. The Man-Power Board had been very helpful in bringing prominently to notice the necessity for some central authority to decide between conflicting claims, but it had not succeeded in obtaining men for the Army. The Ministry of National Service could not set up a new system early enough to ensure the flow of recruits which was essential in order to maintain an offensive. If the War Office could rely upon some 40,000 men being released at once from munitions and 30,000 from agriculture, it might be possible to reach the end of January without disaster in the future; but there was no sign that recruits would be available after the end of January in numbers at all proportionate to the needs of the country. He urged, therefore, that all men of 18, 19, 20 and 21 years of age, physically fit for general service, should, as soon as Parliament met, be made available for service in the Army without exception. This measure, it was calculated, would give 283,470 recruits, and would enable the Army to tide over the months of February and March, by which time it was hoped that national service would be organised sufficiently to maintain the forces in the Field without the dislocation of national industries.\(^2\)

On 14 December, 1916, the War Cabinet had considered the scheme of compulsory national service, prepared by Mr. Montagu's Committee,\(^3\) and without coming to any decision on the scheme decided to appoint a Director-General of National Service.\(^4\) This office was accepted by Mr. Neville Chamberlain. No definition of his functions and powers was given to him, but he understood that he was appointed for the purpose of controlling and regulating the supply of labour for the various national services, and that, although the machinery of recruiting remained under the War Office, he should be consulted as to the best method of raising the numbers of men required without injury to essential industries.

On 13 January, 1917, Mr. Chamberlain made his first report to the War Cabinet.\(^5\) He was satisfied that the greatest and most urgent requirement was to provide for the Army men fit for general service. He recommended, therefore, that a general order should be issued to the effect that all exemptions held by men born in 1895, 1896, 1897 and 1898, and issued to them by or under the authority of Government Departments be forthwith cancelled. Further, an instruction should be

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\(^1\) This figure was obtained as follows:—
  Cabinet permitted War Office to recruit in 1916 ... ... ... ... 1,275,000
  Plus the equivalent of men returned to civil life ... ... ... ... 200,000 — 1,475,000
  Recruited in 1916 ... ... ... ... 1,699,541

\(^2\) Memorandum by the Adjutant-General on recruiting prospects so far as they can be foreseen, 10 January, 1917.

\(^3\) See above, p. 44.

\(^4\) M.W. L.S. 17969.

\(^5\) M.W. 146967/57.
issued to tribunals that it was in the national interest that no man born in one or other of these years should hold a certificate of exemption save in most exceptional cases of individual hardship. Skilled engineers, whose exemptions would be cancelled in this way, should be relegated to the Reserve, unless they were required in the Army in their skilled capacity. In view of the Trade Card Agreement it would be necessary to confer with the trade unions concerned, and, if possible, obtain their concurrence in the modifications of the scheme necessary to obtain the men required. Men employed in mines, shipyards, blast-furnaces, and steelworks would be called up under the general order; but no practicable alternative could be devised, if the War Office was to obtain the men the Army needed in time to train them.

In order to make good the loss of the men withdrawn by this measure from essential industries, Mr. Chamberlain proposed to make a great patriotic appeal for National Service Volunteers.

This report was considered by the War Cabinet on 19 January, who decided¹ that 30,000 men should be made available for general service by the end of January from agriculture, 20,000 from mining, and 50,000 from munitions, and that subject to these decisions "the Director should proceed as in Part I of his report by releasing for the Army all men of 18 to 22, but scheduling as exempt from military recruiting within those ages men in those occupations which are found to be of vital national importance, i.e., men employed in the production of steel, in the occupations covered by the trade card scheme, and in agriculture, mines and quarries, railway shops, transport work, and shipyards."

On 3 February, Mr. Chamberlain submitted a second report to the War Cabinet, in which he pointed out that the number of men made available for the Army by the decision just quoted was negligible, since the fruitful sources of supply were excluded. He urged the abolition of all exemptions up to 31 years of age and the calling up of men by age groups.²

The War Cabinet, however, on 5 February, confirmed their decision relating to the release of men between 18 and 22, and decided that this applied only to men fit for general service, and that the men affected were additional to the 50,000 unskilled and semi-skilled men to be released by the Ministry of Munitions.³

Notwithstanding the limitations specified by the War Cabinet, the decision to call up men of 18 to 22, without the provision of substitutes, threatened a serious dislocation of munitions work. This was aggravated by the fact that the term "occupations covered by the trade card scheme" had no precise meaning, and was not unnaturally interpreted by recruiting officers in a restricted sense. Moreover, in issuing telegraphic instructions to his officers on 5 February, the Director of Recruiting stated that men of all medical categories would be posted, if required; and although this was corrected by telegram on 8 February, it was necessary to telegraph again on 15 February that only men fit for general service should be taken.⁴ On 12 February, Dr. Addison informed⁵ the War Cabinet that a serious fall in the output

of essential munitions could not be avoided, unless the Cabinet's decision was interpreted in a different way. Recruiting officers were calling up even skilled men engaged in the production and manufacture of brass, copper, aluminium, and other important metals, tubes, sheet iron, wire, springs, bolts and nuts, chains, chemicals, aeroplanes, aeronautical woodwork, glass; also men engaged in the manufacture of machinery and tools, guns, motor lorries, and in other industries. From all parts of the country, firms were making most vigorous representations to the Ministry. The fall in the output of brass would probably involve the loss of 300,000 fuses and 200,000 cartridge cases a week. The output of copper would fall by at least 8 per cent. The production of aircraft was endangered by the removal of men employed on essential components of many kinds. Men were being taken out of the gun-shops, although every gun-maker had recently\(^1\) been instructed, with Mr. Lloyd George's entire approval, to keep up to maximum capacity, and the Ministry had promised to do their utmost in giving gun-makers material and labour. Works' chemists were not protected, but 15 per cent. of them were believed to be under 23 years of age, and the War Office had recently released 150 chemists from the Colours in order to increase the output of explosives. If they were removed, not only the quantity but the quality of explosives would be reduced.

On 16 February the Third Sea Lord submitted a similar memorandum\(^2\) on behalf of the Admiralty. It was useless to exempt shipyards unless exemption was extended to marine engine shops and tube works. The protection given to steel should be given to many other metals which were equally difficult to obtain and equally essential, "since the limiting factor in the output of ships and munitions is the available supply of the scarcest essential material." The Cabinet's decision would lead to serious delays in shipbuilding generally; and in this opinion the Shipping Controller fully shared. The total diminution of output was estimated at not less than 10 per cent., and it might be much greater.

Dr. Addison's protest was considered by the War Cabinet on 13 February, and the subject was discussed in great detail. In consequence, several conferences took place between the War Office and the Ministry, at which it was agreed that the calling up notice of a man under 23 years of age should be suspended if it was returned not later than the hour at which the man was due to report, endorsed with a certificate from his employer showing that he was employed—

"(a) In an occupation which would entitle him to receive a Trade Card under the Trade Card Scheme; or

"(b) In an essential process by a firm mentioned in the White List or the supplement thereto issued on 19 December, 1916, and covered by Army Council Instruction 2348 of 1916;\(^3\) or

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\(^1\) On 9 November, 1916.  
\(^2\) M.W. 146967/60.  
\(^3\) This list covered the firms engaged in the production and primary manufacture of metals (e.g., pig iron, steel, aluminium, brass, etc., rolled brass rod, strip or wire, iron and steel tubes, forgings, etc.) together with the ancillary trades (e.g., iron ore mines, limestone quarries, coke producers, silica and magnesite brick works, etc.). The Admiralty and the Ministry attached the greatest importance to the protection afforded by this list. (M.W. 146967/57).
"(c) In a skilled capacity upon the manufacture of optical glass; or

"(d) As a chemist in connection with the production of munitions of war; or

"(e) Upon the actual manufacture or assembling of aero engines, or the parts thereof, aircraft, or the parts thereof (metal and wood)."

The recruiting officer was instructed to consult the dilution officer, unless he was able to satisfy himself that the man was covered by these conditions. If they agreed, action should be taken locally; if not, the case should be referred to the War Office, who would consult the Ministry if in their opinion the man ought to be called up. In future not less than seven days’ notice would be given to any munition worker called up under the Cabinet’s order of 5 February.¹

On 24 February Mr. N. Chamberlain reported to the Cabinet that the maximum number of men fit for general service which the Army was likely to obtain as the result of the Cabinet’s decision in respect of men up to 23 years of age, was 50,000.²


While the Departments were struggling with the administrative difficulties arising out of substitution and the clean cut, public opinion was finding expression in Parliament in regard to the Trade Card Scheme and industrial conscription, the two poles between which policy appeared to oscillate.

On the part of Labour the main ground of complaint against the Trade Card Agreement was that the members of the 25 privileged unions were granted protection against the recruiting officer which was denied to other workmen doing the same kind of work, under the same conditions, and in the same workshops.³ Some of these workmen were members of the industrial unions, such as the National Union of General Workers, the Workers’ Union, and the National Union of Railwaymen; others belonged to no union at all. Although on 14 December, 1916, the Army Council agreed generally to a proposal made by the Ministry that unionists and non-unionists should receive equal treatment,⁴ some delay took place in evolving a satisfactory procedure for the protection of skilled men not entitled to receive trade cards. In January the Army Council decided finally that the agreement could not be extended to other trade unions,⁵ but it was suggested to certain unions that they should forward claims on behalf of individual men. Some 4,000 of these claims were received by the Ministry;⁶ but on

¹ M.W. 146967/57; Circular M.M. 114, dated 19 February, 1917; M.W. 146967/22.
² M.W. 146967/57.
³ Letter of Mr. Clynes, President of the National Union of General Workers, to Lord Derby, 19 February, 1917.
⁶ Minute by Mr. J. A. Barlow, 8 March, 1917. (M.W. 146967/16).
8 February, before the method of dealing with them had been settled, the Adjutant-General informed¹ the Ministry that, in Lord Derby’s opinion, the whole question of the retention and extension of the card scheme, or its entire abolition, should be brought by Dr. Addison before the War Cabinet. In the meantime some of the privileged unions had aggravated the situation by using their privilege as an inducement to attract the members of other unions, and it was alleged that branch secretaries were making the issue of trade cards conditional on the payment of arrears of subscriptions.²

The matter was brought before Parliament on 19 February.³ Mr. J. H. Thomas made a strong speech, in which he maintained that no Government Department ought to give a privilege to any particular union that was not given to all.

"I am speaking," he said,⁴ "as a trade union leader and I am speaking of a particular privilege given to a particular trade union. I have never claimed, and will not claim, any special advantage for our own people. The result of this vicious system is that, instead of helping the situation and the Government, and creating a good feeling, it has engendered more friction and bad feeling, and nothing has happened since the War that has been so bitterly resented by the trade unions."

Nor was the agreement satisfactory to the War Office. One of its objects had been to secure artificers for the Army. But, although the War Office had asked the unions for 1,243 skilled men for railway work and 200 fitters for gun repairs, only 250 of their members had enrolled as Army Artificer Volunteers, and a large number of these had been found not to possess the requisite degree of skill.⁵ One reason for this failure was, no doubt, Lord Derby’s refusal to grant the demand of the unions that the volunteers should be paid not less than 4s. a day plus army allowances.⁶ But this condition was no part of the Trade Card Agreement.

On the other hand, the War Office had issued 475,000 trade cards to the unions; and, although some of these had not been distributed, and many were given to men who already had badge certificates, it was evident that the scheme was unnecessarily limiting the field of recruiting for the Army, inasmuch as it was protecting many semi-skilled machinemen, whose work could be done by women after a short training, and others, for example, sheet metal workers, who were not required as artificers, and of whom there was no marked shortage for munitions work.⁷

¹ M.W. 146967/16.
² Memorandum by Dr. Addison to War Cabinet, 21 February, 1917. (Hist. Rec./R./322/23).
³ Parliamentary Debates (1917), H. of C., XC, 1029 ff.
⁴ Ibid. 1037.
⁵ M.W.M.S. 9140. Up to 30 March, 1917, 511 Army Artificer Volunteers had been obtained from the trade card unions, and 131 from other sources. But only 139 of these had skill of such a kind and degree that they could be offered to the War Office. (Printed) Weekly Report, No. 86, XII. (7.4.17).
⁶ M.W. M.S. 9140.
⁷ Ibid.
Meanwhile, on 6 February, Mr. Neville Chamberlain had opened his campaign for the recruiting of National Service Volunteers. He appealed to all men, between the ages of 18 and 61, to offer their services, whatever the nature of their employment or occupation. Munition workers were invited to enrol no less than persons unemployed or engaged in unessential trades. Service for all should be the country’s answer to Germany’s declaration of unrestricted submarine warfare.

Mr. Lloyd George, who followed, said:—

"We are starting by making a voluntary appeal . . . Should we fail in our voluntary appeal then the nation must save itself. We must resort to compulsion. A community is entitled to the utmost help and the best help of every member who partakes of its life . . . Therefore, if we fail to secure the necessary support by voluntary means, the Government would be guilty of the grossest dereliction of duty, if it did not resort to what, after all, is the act of all in a democratic country—legislation for the purpose of ensuring the best each man can contribute in order to save his country and to save civilisation from complete disaster. The time will not be lost. The organisation which Mr. Neville Chamberlain is building up will be an essential part of any scheme, . . . and the way will have been cleared for a national organisation even under compulsory conditions."

On 22 February the debate on the Second Reading of the Bill constituting the Ministry of National Service turned almost entirely on the question of industrial compulsion. Amendments had been put down to secure, at any rate, that Parliament should be consulted before resort was had to such a measure. Sir George Cave attempted to meet these in advance. It was not, in his opinion, possible to use the Bill for industrial conscription. The Bill contained no new elements of compulsion of any kind.

"But," he proceeded, "as hon. Members seem to entertain some misgivings on the subject, I am authorised by the Government to give to the House a most definite assurance that the Government will not use the powers of this Bill for the purpose of effecting the transfer of labour in any manner not sanctioned by existing legislation without coming to Parliament for specific authority. Moreover, they will not ask for such an authority unless and until they are convinced by experience that voluntary enrolment has failed to furnish the offers of labour adequate to the national needs."

Members, however, were not satisfied. The Bill did not explicitly define the functions of the Minister, and Regulations under the Defence of the Realm Act gave an indefinite scope to the powers which he might assume. The utmost scepticism was expressed as to the value of any

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1 Times, 7 February, 1917.
2 Parliamentary Debates (1917), H. of C., XC, 1503.
3 The operative clauses of the Bill were as follow:—

(1) For the purpose of making the best use of all persons, whether men or women, able to work in any industry, occupation, or service, it shall be lawful for His Majesty to appoint a Minister of National Service . . .

(2) The Director-General of National Service shall for that purpose have such powers and duties of any Government Department or authority.
pledge given by the Government. Moreover, it was obvious that the Bill could not secure the end at which it aimed. It must fail, and its failure would be held to justify compulsion. But not only would any form of industrial conscription meet with the sternest and bitterest opposition from the working classes, but no compulsory powers could enable a Department of State to make the best use of all persons, men and women, able to work. The State could not even deal with potatoes. The only result of its interference was a potato famine, with the farmers on strike from one end of the country to the other.

In consequence of these and similar criticisms from various quarters of the House, Sir G. Cave, after consulting Mr. Bonar Law, promised to insert words to reassure the House. It would be a great relief to him that the views and intentions of the Government should rest, not upon any statement of his, but on some words in the Bill itself. Accordingly, in Committee, the following words were added at the end of clause 2:

"But no Order in Council or Regulation shall authorise the compulsory employment or transfer of any person in or to any industry, occupation, or service."


On 1 March a committee, with Lord Rhondda as chairman, was appointed by the War Cabinet to consider and report on the general position regarding the supply of men for the Army, the policy to be adopted with regard to future legislation, and the modification of existing methods of exemption, including the Trade Card Scheme. It was also decided that a sub-committee, consisting of two representatives of the War Office, and one each of the Admiralty, Ministry of Munitions, and Air Board, and Mr. Shackleton, Secretary to the Ministry of Labour, should prepare and submit to Lord Rhondda’s committee a schedule of the occupations from which men over certain ages should not be withdrawn for military service, with an estimate of the numbers that might be rendered available if all other forms of protection, apart from tribunal exemptions, were abolished.

On 21 March Lord Rhondda reported that the Committee had come to the following conclusions:

1. The Army Council stated that 555,000 A and B(1) men would be required in the four months of April to July. The number of fit men in civil life, it was estimated, amounted to some 2,000,000, of whom 1,500,000 were in protected industries. Of the fit men under 31 years of age, the number in civil life was estimated at about 700,000.

Whether conferred by statute or otherwise, as His Majesty may by Order in Council transfer to him or authorise him to exercise or perform concurrently with or in consultation with the Government Departments or authority concerned, and also such further powers as may be conferred on him by Regulations under the Defence of the Realm Consolidation Act, 1914, and Regulations may be made under that Act accordingly.

Cf. Parliamentary Debates (1917), H. of C., XC, 1507, 1512, 1523, 1546.

1. Ibid., 1524.  3. Ibid., 1548.  5. Ibid., 1552.  7. M.W. 146967/149.
2. Ibid., 1558.  4. Ibid., 1525.  6. Ibid., 1945.
of whom more than 650,000 were in protected industries. In order to meet the requirements of the Army Council 330,000 men fit for general service should be obtained from the protected industries. But the Committee were not satisfied that to take this number would not gravely endanger the supply of essential needs; they, therefore, recommended that the Departments should not be required to release more than 250,000 men fit for general service.¹

(2) "The men to be obtained under our proposals from the protected industries can be yielded only if an adequate supply of reasonably competent substitutes, of whom a large proportion must be of good physique, is forthcoming.

"We suggest that the position be put clearly before Parliament, and that it be pointed out that there are only three possible courses now open to the country:

(a) "To take no action and to allow the armies to dwindle, or else to instruct the Commanders-in-Chief in the field to avoid casualties;
(b) "To raise the military age;
(c) "To introduce some method of re-distributing available labour so as to concentrate it in essential industries.

"The Army Council have urged the adoption of the second course, not so much with the idea of placing the older men in the Army, as of applying indirect pressure to induce them to enter employment in the essential industries in substitution for younger men now protected, who would then be withdrawn. They would,

¹ The quotas were fixed as follows: one quarter to be released from each group each month:

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of men of military age</th>
<th>No. to be released</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badged men, including men badged by the Ministry of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Munitions for other departments, but excluding men in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shipbuilding and marine engineering works, and men</td>
<td></td>
<td></td>
</tr>
<tr>
<td>badged directly by the Admiralty, e.g., men in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mercantile marine</td>
<td>700,000</td>
<td>124,000</td>
</tr>
<tr>
<td>Coal mines</td>
<td>450,000</td>
<td>55,000</td>
</tr>
<tr>
<td>Railways</td>
<td>210,000</td>
<td>21,000</td>
</tr>
<tr>
<td>Dock labour</td>
<td>43,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Police</td>
<td>25,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Civil Service</td>
<td>50,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Other certified occupations, excluding agriculture,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mercantile marine, shipbuilding and marine engineering</td>
<td>400,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,878,000</td>
<td>250,000</td>
</tr>
</tbody>
</table>

It was recommended that the release of the men should not be dependent on the prior provision of a substitute for any man, and the quota for each month should be released as a matter of course, subject to the following provision: if by the end of the month it was found that sufficient substitutes had not been available during the month, the number of men to be released for the next month should be re-considered.
therefore, propose that this measure should be accompanied by a vigorous combing-out of young men in essential industries, and by the granting of conditional exemption to men over the present military age who are prepared to act as substitutes for young men in essential industries. We recognise that there is much to be said for this view, but it is, in effect, industrial compulsion disguised as military service. The general feeling of the conference was against the proposal. If industrial compulsion is necessary, the necessity should be openly declared. We think that the opposition, which must in any case be anticipated, would only be increased by this attempt to disguise its real nature. In these circumstances we favour the third course.

"It is of vital importance to expedite substitution by withdrawing, by degrees, the men required for military purposes from the protected industries in advance of the provision and submission of substitutes, and thus to create and maintain a vacuum in the protected industries which would automatically draw in the substitutes when available; provision to secure this end is contained in the scheme for releasing men. As long as no labour vacuum is created in the protected trades, so long will employers continue successfully to evade the acceptance of substitutes for the men who should be released for military service.

"The Conference generally had grave doubts whether suitable substitutes in adequate numbers would be forthcoming without the adoption of compulsion for restricting unessential industries and for transferring men from unessential to essential work. Having regard, however, to recent pledges and to what transpired during the past week or two in the discussions on the National Service Bill in the House of Commons, the majority of the members felt that any measure of compulsion of this kind was at present impracticable; and therefore they supported a proposal put forward by the Director-General of National Service under which, in addition to the existing scheme of National Service Volunteers, special appeals are to be made for Substitution Volunteers to take the place of eligible men released from essential industries for military service. It is proposed that these appeals should be directed to particular trades likely to yield suitable men of the kind required; that they should be made through local committees representative of employers and employed in each of the trades; and that the selection and transfer of the men to be placed as substitution volunteers should be carried out by these committees. If, after a limited period, the method could be shown to have failed, the case for compulsion would then be overwhelming and should command general assent."

(3) The Trade Card Scheme should be superseded by a schedule of protected occupations, with age limits. The trade unions concerned must be informed before the new arrangements were brought into force.

(4) Liability to serve with the Forces should be extended to friendly aliens of allied countries who were resident in Great Britain.

1 See note above, p. 80.
(5) It was proposed to amend the Military Service Acts: (a) by reducing the period of grace allowed after the expiration of an exemption from two weeks—or, in certain classes of cases, two months—to seven days; (b) by giving power to the Army Council to require a rejected man to be re-examined after not less than six months, and a discharged man after not less than twelve months, from his rejection or discharge.

(6) The Committee should be authorised to review the position at the end of a month.

"We would venture," the report concluded, "to press very strongly on the War Cabinet that the strain on the man-power of the country is becoming acute, especially in view of the heavy industrial and financial responsibilities which have to be borne by this country; and that, therefore, it is imperative that more men should not be taken for military service than are really needed, and that there should be the fullest economy in the use of man-power, not only in industry but also in the Army."

A minority report\(^1\) was also submitted, on behalf of the Admiralty, the Army Council, and the Ministry of Munitions. Effective and certain substitution, without which young fit men could not be released from the essential industries, could not in their opinion be secured on a voluntary basis. The substitutes must be obtained on a scientific plan, by scrutinising unessential occupations and scheduling those most like the occupations in which substitutes were required. Moreover, it was not practicable to effect substitution by creating a vacuum. Such a process would diminish output, and no Department could take this risk. The simplest and most direct way of solving the problem was to raise the military age to 45 and to take power to raise it to 50 by Order in Council. This measure would need no new administrative machinery; it would yield not only recruits, but many men who in exchange for conditional exemption would be ready to act as substitutes. If this was industrial compulsion, industrial compulsion had been in force since the Military Service Act was passed. That Act had provided tens of thousands of men for shipyards, munition factories, coal mines, and other work of national importance. Nor had Parliament ever seriously objected to the War Office substitution scheme, which was based upon the grant of conditional exemption to men of military age acting as substitutes. The three Departments, therefore, urged upon the Cabinet the immediate adoption of some measure calculated to obtain with certainty the substitutes required.

On 23 March, the War Cabinet considered the report of Lord Rhondda's Committee and decided that\(^2\):—

(a) "Having regard to the strong feeling existing in the country on the subject of Industrial Compulsion, it was impossible to proceed with any scheme for the compulsory transfer

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\(^1\) M.W. 146967/149. In a note to the majority report Lord Rhondda stated that he dissented from section 2 of that report, in that he considered the adoption of compulsion necessary for the provision of suitable substitutes in adequate numbers.

\(^2\) M.W. 146967/149.
and allocation of civilian labour until it had been demonstrated by experience that voluntary enrolment, reinforced by the restriction of less important industries in respect of labour, material and transport, was incapable of yielding the necessary supplies."

(b) The Director-General of National Service should proceed at once with his proposal to make special appeals for substitution volunteers.

(c) The Trade Card scheme should be superseded by a schedule of protected occupations.

(d) The schedule of occupations and age limits as printed and circulated to the Cabinet should be adopted.

VII. The Schedule of Protected Occupations.

The Schedule of Protected Occupations was developed in the attempt to give precision to the limits set by the War Cabinet on 5 February to the enlistment of men under 23 years of age, and in particular by defining the occupations covered by the Trade Card Scheme. But the principle of the Schedule, exemption from military service on account of employment, occupation, age, and physique, had been applied by the Reserved Occupations Committee for more than a year; and in issuing war service badges occupation as well as employment on war work had always been taken into consideration, age and physique being subsequently added. Nor should it be forgotten that the Schedule could not have been compiled without the experience obtained in the administration of more flexible methods of limiting enlistment. The new scheme differed from the methods of exemption which it superseded in four respects:—occupations and age limits were defined with greater precision, the treatment of various classes of labour approximating to uniformity as nearly as the circumstances allowed; the two months’ period of grace after the withdrawal of a certificate of exemption was abolished by substituting administrative protection for legal exemption under the Military Service Acts; the responsibility for exempting individuals was withdrawn from employers and trade unions and devolved upon local recruiting offices; and, most important of all, a system of local committees, representative of Labour and the Departments concerned, was set up in order to investigate and decide all complaints of improper enlistment or claims to certificates in accordance with the schedule.

The first draft of the schedule was completed by the Labour Supply Department of the Ministry of Munitions on 28 February.¹ After it had been considered by the sub-committee appointed by the Cabinet on 1 March,² an agreement was made on 16 March, between the Admiralty, the Ministry of Munitions, and the War Office,³ of which the following are the main points:—

(1) The various methods by which men engaged on munitions or Admiralty work were protected from recruiting, with the exception of exemptions granted by Tribunals, should be replaced by a schedule of occupations.

¹ M.W. 146967/84. ² See above, p. 79. ³ M.W. 146967/149.
(2) This schedule would not confer any right of exemption from military service.

(a) The Ministry of Munitions would continue to provide skilled artificers for the Army. Should the Ministry fail to meet the requisitions of the War Office, the War Office would call up the men required, beginning with soldiers released from the Colours and men transferred to the Reserve for munitions work.

(b) Wherever it was found possible to provide substitutes, either generally or in a particular instance, for men employed in occupations covered by the schedule, the protection afforded by the schedule would not be continued.

(c) Protection would be withdrawn from any man found to have a bad record for absence from work.

(3) Skilled men below the age of 25 and semi-skilled and unskilled men under 32 years of age, not covered by the schedule, might be enlisted, provided—

(a) that no man should be removed unless he was passed fit for general service;

(b) that one quarter of the quota allotted to each Department should be released by the end of the first month, but if in any establishment a sufficient number of effective substitutes had not then been supplied, no further men for whom substitutes were required should be released until the substitutes were forthcoming;

(c) that the local representative of the Department should decide whether a substitute was needed and whether the substitute provided was efficient.

(4) The scheme was accepted by the Admiralty and the Ministry, subject to the condition that they might claim exemption in exceptional cases for men found to be essential to maintain output who were not covered by the schedule. Where a large number of men were liable to be called to the Colours, the recruiting officer should be instructed to arrange with the firm to call up the men in age groups at reasonable intervals, beginning with the youngest, in order to minimise disorganisation and complaints of victimisation. Moreover, although a general reservation of the labour engaged on the manufacture of some particular munition, for example, guns, aeroplanes, anti-submarine apparatus, would introduce confusion into the scheme, output could only be safeguarded by giving the recruiting officer a list of firms whose men should not be called to the Colours.

(5) It was intended to revise the schedule as soon as the effect on output of the first withdrawal of men was known. Certain skilled occupations had so far been omitted, because the work could be undertaken by substitutes. But, since this substitution would entail a certain period for training and organisation, it would not be safe to release men over 25 years of age. Other occupations must be added to the schedule when the age at which exemption began was raised.
(6) A man’s occupation would be ascertained by reference to his National Registration Card, unless it was otherwise provided. If the man claimed to be in one of the scheduled occupations, the recruiting officer and the local representative of the Department concerned should, if possible, settle the case. Failing their agreement, the case should be submitted to the local Enlistment Complaints Committee, and in the last resort to the War Office and the Department concerned.

(7) Men in a scheduled occupation, not fully engaged on war work nor exempted by a tribunal, should be granted exemption for one month conditionally on their enrolling as War Munition Volunteers.

In addition to these reservations, the schedule itself discriminated between the various industries and occupations. In shipbuilding, for example, and the manufacture of iron and steel, copper, and spelter, all classes of workmen were protected, including men who had come in by 29 March, 1917. In the other basic industries and their ancillary trades, such as furnace firebrick manufacture, all except the unskilled men were protected. In the engineering trades skilled mechanics and many classes of men usually reckoned as semi-skilled were protected, some without any limit of age, others at various ages, in some cases those only who were engaged in the occupation on 15 August, 1915, in others, those who had entered it before 29 March, 1917. In a few industries none were protected except highly skilled men or men holding responsible positions.

The adjustment of the schedule to the more or less urgent requirements of the supply departments was very difficult, and called for courage, firmness, and judgment. The Mechanical Warfare Department, for example, urged that tank manufacture should be protected throughout like shipbuilding. But such a general reservation would have cut across the elaborate arrangements for the protection of the engineering trade, afforded opportunities for evasion, and raised the grievance that men of the same class were not being treated uniformly. This request therefore, was not granted. But the strong protests of the Admiralty and the Shipping Controller, supported as they were by the submarine menace, resulted in the exemption of all labour employed on marine engine work. This decision not only upset the schedule, so far as the engineering trade was concerned, but rendered it very improbable that the prescribed quota could be furnished from badged men engaged on munitions work.

VIII. The Arrangements for the Administration of the Schedule.

More important and novel than the Schedule of Protected Occupations was the decentralised system set up for its administration. The mistakes, confusions and delays of the earlier methods of

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1 Schedule of Protected Occupations. Circular M.M. 130, 28 April, 1917.
2 M.W. 146967/149. This decision was reached on 29 March, 1917, by Lord Milner and Mr. Henderson, to whom all outstanding questions arising out of the Report of Lord Rhondda’s Committee were referred for final settlement. At the same time the quota allotted to the coal mines was reduced from 55,000 to 20,000. It was also decided that the Schedule of Protected Occupations should govern the recruitment of men employed in railway workshops.
3 The officers of the Ministry of Munitions, who were primarily responsible for the schedule and its administration, were Sir Stephenson Kent and Mr. J. A. N. Barlow.
exempting munition workers from military service, and the widespread suspicion and industrial unrest which they aroused, were in a large measure due to the following causes. First, the separate organisation of the recruiting and exempting authorities not only involved a cumbersome procedure of official communication, slow at the best and subject to accidental delays of many kinds, but obstructed that personal acquaintance which is almost essential to the smooth working of a complex system that cannot be reduced to cut and dried instructions. Secondly, the duty of making out the certificates of exemption to individuals, which was imposed upon the Badges Section in the spring of 1916, and complicated by the directions of the Man-Power Board in October, was a responsibility that could not be swiftly and efficiently carried out by a small central department, dependent on forms, schedules and correspondence, and periodically overwhelmed by the consequences of some sudden change of high policy. Thirdly, since the initiation in applying for the protection of his workmen lay with the employer, he was suspected of victimisation if he omitted to apply or if his application was refused by the department; and the withdrawal of exemption was erroneously, but not unnaturally, traced to the same motive. Finally, Labour, being excluded from the administration of exemptions, was often ill-informed of the facts, and magnified isolated mistakes into general charges of bad faith and injustice; yet, when it sought redress, it was not infrequently referred politely from one Department to another, since no one had authority to set the matter right, where, as usually happened in these cases, some technical error had been committed by the workman or his employer. The appointment of labour committees with advisory powers only aggravated suspicion, since they appeared to be powerless to act, and even where their protest reached the proper quarter the delay had made the mistake irremediable.

(a) The Munitions Area Recruiting Offices.

The machinery for recruiting was simplified and adjusted in accordance with an agreement made on 3 April, 1917, between the Admiralty, the War Office, and the Ministry of Munitions. The country was divided into 66 munitions areas for the purpose of release and protection. In each area an office was established in charge of an officer appointed by the Directorate of Recruiting. To each office the Ministry of Munitions appointed a dilution officer, responsible directly to the Ministry, as its technical representative, with discretionary powers in regard to the retention or release of munition workers. For firms mainly engaged on work for the Admiralty, the Admiralty district representative exercised these powers through the dilution officer. All firms were instructed to complete a form comprising all the male employees on their register on 29 March, 1917, and to forward it to the dilution officer of the area in which their works were situated;

1 M.W. 146967/84; Circular M.M. 133. Munitions Area Release Scheme. Instructions for Munitions Area Dilution Officers.
2 M.W. 146967/153, dated 21 April, 1917.
from these forms the dilution officer compiled a list of the men who in his opinion might be released in the period under review, if found fit for general service. He then handed the list to the recruiting officer, who summoned the men for medical examination by a notice calling them to the Colours. In each area there was a central medical board in continuous session, and travelling medical boards were provided, so far as possible, to deal with large establishments. Certificates of protection\(^1\) were issued from the area office to all men who were covered by the schedule, or found unfit for general service, or for any other reason retained in civil employment. Where a firm claimed a male substitute, the dilution officer decided; if he allowed the claim, the duty of providing a substitute was entrusted to the Employment Exchange, or the National Service Department, which were represented by their own officers in the area office. If calling-up notices were sent in error, the firm was directed to inform the dilution officer immediately. Where firms were engaged on contracts of paramount importance, the Admiralty or the Ministry instructed their representatives to exercise special care in the removal of any of the labour employed thereon. Each area office kept card indices, containing the names of all men employed by the munitions firms in the area, recording those who were released and those whose release was deferred pending the provision of substitutes.

In this way the officers responsible for applying the scheme of protection and release to individual munition workers were brought into direct personal contact with each other, and the risk of misunderstanding, error, or delay, was reduced as far as practicable. The mutually dependent parts of the scheme, protection, medical examination, substitution and release, were so adjusted that the machinery could work swiftly and smoothly without the risk of a breakdown. The area office, being responsible for all matters relating to recruiting within its area, afforded employers and workmen the means of grappling directly and effectively with any doubt or difficulty that might occur; in particular, calling-up notices were issued from a single office in the locality, instead of the place at which the man happened to have been registered in 1915—a fertile source of confusion and wasted time. Routine administration was decentralised, and headquarters set free to deal with questions of policy, to supervise generally, and to adjudicate on the exceptions and special difficulties which necessarily arose in working out so complex and comprehensive a scheme, in relation to the ever-changing problems of munitions supply. Finally, a sound basis was provided for the statistics concerning the number and medical grade of the men of military age employed on munitions, statistics which were essential if the small reserves of man-power still available were to be handled with wisdom and economy.

\(^1\) These were of two kinds: (1) the scheduled occupations certificate, Army Form 3476A, which was given only to men covered by the schedule; (2) the protection certificate, Army Form 3476B, which was given to other men retained in civil employment. The former was red, the latter was black, and commonly known as "the death card."
(b) The Labour Enlistment Complaints Committees.

In each area office, provision was also made for dealing with complaints from workmen or their trade unions against improper enlistment. The basis of this scheme was the undertaking given by the Ministry in November, 1916, to those trade unions which agreed to dilution on private work, to set up central and local machinery in order to deal with allegations of victimisation by employers, or improper enlistment. On 6 December the Labour Enlistment Complaints Section was constituted in the Labour Supply Department of the Ministry with Mr. Shackleton as Director, but he was soon afterwards appointed Secretary to the Ministry of Labour, and owing to the opposition to dilution little progress was made until the following March, when, under the direction of Mr. W. Mosses, eight committees were formed, one for each of the Employment Exchange Divisional Areas. Each committee had six members, the Chief Dilution Officer of the Ministry of Munitions, who acted as chairman, a representative of the Admiralty, a representative of the Recruiting Department of the War Office, and three representatives of the trade unions which had signed the Dilution Agreement.

The procedure of these committees had scarcely been settled when it was decided on 6 April to extend their scope and embody them in the machinery for administering the schedule of protected occupations. Since it was obvious that the eight committees could not cope with the work which would be thrown upon them, a sub-committee was set up in each of the 66 munitions areas, consisting of the area dilution officer and a labour representative. Each sub-committee was responsible to one of the eight main committees, and through it to the Labour Enlistment Complaints Section of the Ministry.

The only issue with which a committee or sub-committee was empowered to deal was whether or not a workman was covered by the Schedule of Protected Occupations under the conditions laid down in that schedule and the preface and notes thereof. A claim might be made for a scheduled occupation certificate, either by the workman himself, or by his trade union on his behalf, or for the reconsideration of a decision by one of the government representatives on the ground that the facts had materially changed since the decision, or had been misrepresented, or new facts had come to light. Where a claim was not admitted by the dilution officer, the sub-committee examined it, and if necessary visited the man at his work. If both members then agreed, and the case did not appear to involve difficult technical points, they decided it. Otherwise, they referred the claim to the main committee, which could decide it by a majority unless the

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1 See above, Chap. III., Sect. III.
2 Prior to his appointment by the Ministry, Mr. Mosses was Secretary of the United Pattermakers' Association. He was also Secretary to the National Advisory Committee on Labour, and General Secretary to the Federation of Engineering and Shipbuilding Trades.
3 Hist. Rec./H./322.2/1. History of the Labour Enlistment Complaints Section, by Mr. F. R. Lovett.
War Office representative or any two other members requested the
chairman not to permit the claim to be decided but to refer it to the
Director of Labour Enlistment Complaints for decision in consultation
with the War Office. The section was also empowered to issue to the
committees and sub-committees directions of general application on
administrative matters and on the interpretation of the schedule, and
in this way it was enabled to control and co-ordinate their work.¹

No right of appeal against a decision was allowed to a workman or
trade union, and the departmental representatives could only ask for
reconsideration on the grounds specified above. But the executive
council of a trade union was permitted to bring to the notice of the
Labour Enlistment Complaints Section any cases in which it appeared
prima facie possible that a wrong decision had been given by a
sub-committee. The section undertook to investigate such cases,
and the War Office agreed to suspend calling-up notices pending the
enquiry.² This arrangement prevented the duplication of effort and
the delay to which a general right of appeal would have given rise,
but enabled the trade unions to bring forward their grievances at once
for redress, and so increased their confidence in the scheme as a whole.³

In addition to claims to scheduled occupation certificates, which
could only be issued to men employed on Admiralty, War Office, or
munitions work, or in a railway workshop, the sub-committees also
received claims from men not so employed, but engaged in scheduled
occupations and eligible for enrolment as War Munition Volunteers.
In such cases they were empowered to authorise the issue of W.M.V.
(War Munition Volunteer) protection certificates pending the transfer
to such work.⁴ Further, they dealt with cases in which men changing
their employment, claimed that they had a reasonable cause for failing
to re-enter Admiralty, War Office, or munitions work within fourteen
days, and so forfeiting their certificates. They also investigated
personally and reported on cases of bad time-keeping, which were
referred to them by the Admiralty or the Ministry.⁵ Subsequently,
after the passing of the Amendment Act of 1917, they were called upon
in cases of breaches of works rules to decide whether there was a
prima facie case for prosecution before a munitions tribunal.

The appointment of the labour representatives on the sub-committees
was a delicate matter.⁶ Mr. Mosses invited the trade unions which,
in his opinion, were concerned in the schedule to make nominations,

¹ See L.E.C. 60. Consolidated Direction to Enlistment Complaints Sub-
Committees. Under the original schedule, up to 1 February, 1918, 129,447
claims were received.

² M.W. M.S. 36006; Hist. Rec./R./322.2/1.

³ Up to 31 August, 1918, 823 cases were referred to the Labour Enlistment
Complaints Section. In 259 of these the decision of the sub-committee was
reversed; and in 452 it was confirmed. (Hist. Rec./H./322.2/1, p. 31.)

⁴ Up to 31 August, 1918, W.M.V. protection certificates were issued to 6,610
men. (Ibid., p. 65).

⁵ Up to 3 November, 1918, 955 cases were referred to Enlistment Complaints
Committees. Protection was withdrawn in 548 cases, not withdrawn in 173,
the remainder being then under the consideration of the committees or the
Ministry. (Printed) Weekly Report, No. 166, IX. (2.11.18).

⁶ M.W. M.S. 7413/2.
and interviewed selected nominees with the help of two representatives of Labour on his staff. He then made proposals for appointment, having regard to the relative importance of the unions, to the Minister of Labour, who confirmed them. The craft unions were naturally represented strongly, and criticism on this head was from time to time urged by the general labour unions. But, although their allegations of unfair treatment were investigated, only one case was found which afforded substantial ground for the charge. In general, the sub-committees appear to have maintained a high standard of independent and impartial judgment.

Since the members of these committees were whole time officers of the Ministry, and exercised judicial functions on the claims of members of various unions, it was necessary to lay down the rule that they should no longer be definitely associated during any part of their time with the work of their own unions, nor take part openly in the public discussion of controversial labour questions. Nevertheless a complete severance from their trade union work and associations would have diminished their value; and the rule was so interpreted that members of the committee were enabled to use their practical knowledge of the scheme, and their influence as trade unionists to correct misunderstandings and exercise a restraining influence.

The peculiarity of this scheme, on which its success depended, lay in the granting of executive powers to the representatives of Labour. As officers of the Ministry they were under discipline, which made possible the co-ordination of their work and the observance of common principles in their decisions. Executive powers gave them a sense of responsibility, which was not always shown by advisory bodies, tempted as these were to exploit a grievance by their incapacity to redress it. As representatives of Labour they created a feeling of confidence in the trade unions, that the workman's point of view and the workman's experience would be brought to bear on a question of vital importance to the individual workman. The scheme could not have succeeded if the personnel of the committees had not been selected with good judgment, and if the members had not loyally worked together and endeavoured to understand one another; how divergent were the presumptions from which they approached their common

1 Hist. Rec./H./322.2/1. p. 17.
2 The trade unions represented on the original 66 sub-committees were as follows:—Amalgamated Society of Engineers, 20; Boilermakers and Amalgamated Carpenters and Joiners, 6 each; Patternmakers, 4; Shipwrights, Steam Engine Makers, and Electrical Trades Union, 3 each; Sheet Metal Workers, United Machine Workers, General Union of Carpenters and Joiners, Ironfounders, Woodcutting Machinists, Toolmakers, 2 each; Steel Smelters, Plumbers, Painters, Amalgamated Cabinet Makers, Associated Smiths, Metal Wire Tube Workers, Workers' Union, National Union of General Workers, and National Union of Railwaymen, 1 each.

The trade unions represented on the eight main committees were as follows:—Amalgamated Society of Engineers, 8; Shipwrights, 3; Ironfounders and Patternmakers, 2 each; Sheet Metal Workers, United Machine Workers, Amalgamated Carpenters and Joiners, General Union of Carpenters and Joiners, Blacksmiths, Boilermakers, United Kingdom Coachmakers, Brassworkers and Metal Mechanics, and Steel Smelters, 1 each.

3 Est. 1009/1.
problem, the preceding narrative has indicated plainly enough. A further indispensable condition of success was the precision with which the functions of the committees were defined. Had more general powers been given, they would probably have resulted in the raising of issues, which would have involved a deadlock within the committees or a conflict with the policy of the Government, difficulties which had more than once broken the efforts of the Ministry to give Labour a voice in its administration. Finally, the co-ordination of the whole system under the direction of the central department provided means by which the trade unions could obtain an immediate enquiry into grievances arising out of the Military Service Acts by an authority with power to suspend action and to give redress. If such a scheme had been devised eighteen months or even a year earlier, many of the most serious labour troubles, which disorganised the output of munitions and imperilled the home front, would have been avoided.
CHAPTER V.

THE ENGINEERS’ STRIKE, MAY 1917.

I. Introductory.

The new scheme was launched into a sea of troubles. The Barrow strike in March had shown that feeling was tense in the great munitions workshops, and a trivial dispute might unchain a storm which could not easily be quieted. The workpeople, men and women, were tired. Long hours of continuous strain in the factory, overcrowded houses and lodgings devoid of every comfort, dear unpalatable food, hardly to be got by dreary waiting in the queues, the absence of amusement and recreation, bereavement and the return of the maimed, produced a nervous irritability, which was only intensified by the excitement of the news of the Russian Revolution, America’s entry into the war, or the capture of Vimy Ridge.

Men in such a mood distorted out of all proportion the grievances which arose from the administration of the Munitions of War and the Military Service Acts, especially where large workshops and trade union organisation made meetings frequent and isolated the munition workers from the rest of the community. Nor were their grievances few. The irksomeness of the leaving certificate, the inequalities of exemption from military service, the delay in securing arbitration, the ponderous working of the departmental machinery, the disproportion between the earnings of piece-workers and the highly skilled time-workers, who supplied their tools and maintained their machines, the rapid rise of prices and the slow increment of wages, would have produced abundant material for discontent, even if the zealous recruiting officer had always executed his instructions with judgment, the representatives of the Ministry and the Admiralty had never made mistakes, and employers had invariably shown tact and consideration.

The substitution of the Schedule of Protected Occupations for trade cards and the extension of dilution to private work in this electric atmosphere were rendered more difficult and hazardous by the relative discredit into which the executives of the trade unions had fallen. Although the Government had continually consulted the trade union leaders and largely based its industrial policy on their advice, yet the suspension of the right to strike by the Munitions of War Act, depriving as it did the union executives of the one effective sanction of their will, had undermined their authority over their members. The very existence of grievances was often taken as proof of their incapacity to act. The influence they exercised on the national policy was naturally not appreciated by the rank and file. The closer their relations with the Government, the more were they suspect of having sold their cause. The elaborate procedure devised in time
of peace to prevent hasty action was ill-adapted to the rapid changes and sudden crises incident to the war.

In these circumstances, power passed into the hands of the shop-stewards, who formed the lowest grade in the official hierarchy of several craft unions, in particular the Amalgamated Society of Engineers. Chosen by the skilled men in the workshop, and appointed by the district committee of the union, they examined the pence cards of their members, and reported each quarter on all matters concerning the welfare of their society. As the war went on, many employers were glad to make use of their help in settling the minor difficulties to which war conditions, and more especially dilution, gave rise from day to day. Thus their authority grew, and they became conscious of their power. In large establishments they began to consult and act together in committees, and in the great centres of industry, where common grievances called for a wider organisation, the more forceful and ambitious of the shop-stewards formed central committees. These bodies were in more direct contact with the workmen than the branch and district organisation of the trade unions, which not only followed the cleavage between craft and craft but often combined men in different shops and industries, and separated those who worked side by side, under the direction of officials who no longer followed their trade and were immersed in routine. Moreover, if the shop-stewards brought about a strike, they did not imperil the union funds; yet the want of money did not cripple their power, since the workmen knew that the Government could not allow a strike to drag on, and, even if they had spent all their earnings, sufficient credit would be secured by the certainty of good wages and an early return to work.

This movement first grew to power on the Clyde in 1915.¹ In the following year it had spread to Sheffield, and the success of the strike there in November² encouraged its development elsewhere. Its leaders, as might be expected from the manner in which it originated, differed widely in their aims. Some were narrow and loyal trade unionists, determined only to assert the prerogatives of their craft and to safeguard its position through the war, while their executive was, as they thought, shackled by Acts of Parliament or mesmerized by official favours. Others were firebrands, apostles of revolution and class war; the leaders, they said, had usurped the rights of the rank and file, which by mass meeting ought to decide all questions of policy; such men were ready to exploit any grievance in order to stimulate passion and embarrass authority. Between these extremes was a group of men who recognised that the sharp demarcations of the craft unions were artificial, if not already out of date in an age of mass production and specialisation; they looked forward to a new organisation of labour, with an industry as the unit instead of a trade, embracing all classes of workers, skilled and unskilled, men and women, and rising from the workshop committee of shop-stewards, instead of the trade union branch, through committees representing

¹ See Vol. IV, Part II, Chap. II, and Part IV, Chap. VI.
² See above, Chap. II, Sect. X.
the works and the local industry to a national industrial council. ¹
But, although this group contained some of the ablest of the shop-
estewards, the strength of the new movement lay with the more conser-
ervative representatives of the skilled men, and success only attended
those efforts which asserted the claims or expressed the grievances of
the craft unions.

II. The Conference with the Trade Card Unions, 3 April, 1917.

On 3 April a conference was held at the Ministry of Munitions
between representatives of the Government and members of the
executives of those trade unions which were parties to the Trade
Card Agreement. Mr. Henderson, who was in the chair, explained²
that the conference had been invited, in consequence of a decision
by the War Cabinet, to face the very serious need for augmenting both
the land and sea forces, and more particularly for providing the
necessary drafts to keep up the Armies in the Field. It was imperative
to change the system of protection by trade cards, which had caused
profound dissatisfaction to the unions excluded from it, and failed to do
all it was intended to do when it was instituted. The new scheme
would be found to satisfy, in a very large measure, the legitimate claims
of the skilled unions, having regard to all the needs which the
Government was called upon to meet.

Sir William Robertson then reviewed the military situation.³
Germany was still very formidable indeed, though her allies were failing.
The German had retired from the Somme, because he could not stay
where he was. But he was not finished. He had gone back to make
himself stronger. He had in the Field between seventy and eighty
divisions more than he had the Easter before. By industrial com-
pulsion and by defying every principle of humanity and international
law, by starving Poland and slave-raiding in Belgium and France,
he had increased his forces by more than a million men. On the other
hand, Russia was not giving, or likely to give, the assistance hoped for
that year. France had suffered enormous losses, and her army was
diminishing in strength.

"Day by day the burden upon us becomes greater. Then you
say, 'How many men do you want?' I will tell you the same as
I told the Government three days after I took up my post in
December, 1915, as I have told it to them many times during the
past year. I have only one answer to that question, which is,
that the war is so colossal and its developments are so extensive
that you must do everything you can, and you cannot expect to
win this war unless and until every man and every woman in this
country does a full, and an appropriate, and an essential day's
work, whether in this country or at the Front. I have never
varied my statement. I have said that men who can be spared

¹ Cf. The Workers' Committee: an outline of its Principles and Structure,
by J. T. Murphy, Sheffield, 1918.
³ Ibid., pp. 4–12. The speech was reported in the Times, 5 April, 1917.
must go into the Army, and by ‘spared’ I mean the men who can be spared from naval work, shipping, essential industries, and in fact everything essential to the prosecution of the war. How many men that leaves for the Army I have not ventured to say, and I have never found out. It is, of course, a matter that the Government alone can decide, and with the Government I have left it. But I can put it at no less than that; it would be folly to try to do such a thing.”

Half-a-million men, he proceeded, were required by July to keep up the divisions on the various fronts. If they were not forthcoming, the best that could be expected would be a prolongation of the war with all its hardships and miseries. To produce these men would mean great self-denial; and more privations, greater self-sacrifice must be undergone before the end was reached. But every effort must be made, not indeed to destroy the German nation, but to crush its despotic, domineering, military caste; to teach Germany that might was not right, that freedom was based not on military power but on moral principles. But those principles could only be established by victory; and the war could not be won without men.

Admiral Jellicoe then emphasised the submarine menace. The Navy could not win the war. Its job was primarily to keep open the communications of this country. The danger at the moment lay in the destruction of British merchant ships. The situation, already serious, would become extremely grave by June or July unless some measure could be found to defeat the submarine. There was no royal road to success. Experiments of all sorts were being made. But what he needed above everything else was small craft. Every ship entering the war zone round the British Isles should be met and escorted by two small craft. He had not got the twentieth part of what he needed to afford this measure of security. The War Office would not take for the Army the men who could build ships. His only competitor really was the Shipping Controller, who must have merchant ships to replace his losses. “We both want ships, and we both want every ship you can give us.”

After the need for men and ships had been set out, Dr. Addison explained the new scheme of protection. In order to release its quota, the Ministry had been compelled to revise its methods of exemption, and try to devise some system that would be fair all round, and yet leave to the essential industries those men who, from their skill or otherwise, were essential. The Trade Card Scheme was unsatisfactory because it did not protect men who were indispensable and it protected men who were not. The only rational and fair basis of exemption was the man’s occupation, his skill, and his real indispensability. That was the principle of the new system.

After Dr. Addison had illustrated the working of the scheme, Mr. Henderson invited questions, and the remainder of the conference was mainly occupied with explanations of details and protests against

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1 Hist.Rec./R./322/13, pp. 12-17. The substance of the speech was reported in the Times, 5 April, 1917.
2 Ibid., pp. 18-25.
the omission of certain occupations from the schedule. The protests were met partly by a promise to amend the schedule, partly by the assurance that even where an occupation was not scheduled the skilled men over 25 years of age would not be taken for the time being, but if after the young men had gone it was found that more men could be spared, the age limit might be raised to 28 or 30.

Incidentally the question emerged, what was the purpose of the meeting? Were the representatives of the unions invited to discuss the proposal on its merits, or simply to suggest amendments? Mr. Henderson replied: "Whilst we are prepared to give the fullest consideration to any suggestions or amendments that you may make to the scheme, the Government has decided that the Trade Card Scheme must be withdrawn and substituted by this, what we think much better, form of protection."

But, though little was said, it was plain that the unions would not acquiesce in the withdrawal of their trade cards. They had spent large sums of money in setting up the machinery to work the scheme; to ask them to scrap it was preposterous. It had not yet had a fair trial. The War Office had not enabled them to issue the cards until February, and the work was not yet complete. Moreover, the Trade Card Agreement had been made between the Government and the unions, who held that it could not be varied or abrogated without their consent.

"We are not bound," said Mr. John Hill, of the Boilermakers, to Dr. Addison, "to give up our Trade Card System by any means, and we have the assurance—although we did not get it from you—from one of the signatories that he will not be a party to setting aside that. Therefore, you have to get our consent, and if you are going to get our consent to an amendment, why should you scrap the machinery you have set up, when it may well be adapted so as to carry the trade unionists with you, instead of handing us over into the hands of the employers to pick and choose whom they want?"

Dr. Addison replied by explaining that the trade unions would send in lists of the men for whom they claimed exemption as well as the employers, and any question that might arise out of their claim would be decided not by the representatives of the War Office or the Ministry but by the Labour Enlistment Complaints Committees. The unions, however, were not convinced of the defects of the Trade Card Scheme or the merits of the substitute, though it was stated more than once that they would agree to release men up to a certain age for the Army if they were needed.

Consequently, after the representatives of the Government had withdrawn, the following resolution was passed:

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1 Hist. Rec./R./322/13, p. 27.
3 Ibid., p. 31.
4 Ibid., p. 44. The representative of the A.S.E. stated that the scheme had cost his society roughly £10,000.
5 Ibid., p. 39.
6 Ibid., p. 40.
7 e.g., by Mr. Hill, Ibid., p. 43; cf. Mr. Gordon's statement, p. 27.
8 M.W.M.S. 21532; M.W. 146967/84.
“That in the opinion of this Conference the present Trade Card System should be given a fair trial by the societies responsible for their issue without creating any more complicated machinery, and we recommend the Government to reconsider their decision with regard to the trade card in present use.”

The meeting also agreed to a suggestion made by Dr. Addison at the conference and appointed a committee of five to discuss the question further with the Government.

III. The Conference with the other Trade Unions, 4 April, 1917.

The reverse of the labour situation was exhibited next day at the conference with the unions which had been excluded from the Trade Card Scheme. After Sir William Robertson and Admiral Jellicoe had explained the need for men and ships, and Dr. Addison had outlined the new proposals, Mr. Clynes, on behalf of the General Labourers’ Council, welcomed the change of policy and gave emphatic expression to the resentment of the unprivileged unions against the unfairness of the Trade Card Agreement.¹

“Even in war time there is one thing we are entitled to insist upon, and that is fair play amongst each other (hear, hear), and we can get that without any interference with the progress of the war if we just deal with this question in a frame of mind that means simple equity as between man and man. This scheme, on the first examination of it, appears to me to be eminently fair. It may have to be subject to some modification and criticism later on, but it does carry on its face that very thing that all along we have been seeking—that is to say, something like equity, if not absolute sameness of treatment, as between workman and workman.

“But I cannot even accept a scheme like this without offering at this meeting, which is I think the appropriate place for it, an expression of our deep sense of resentment at the way we have been treated. (Hear, hear.) I think it is far better to have this feeling of complaint uttered than that it should be further stored up and perhaps do damage in respect to our future relations. (Hear, hear.) I was disappointed on hearing at first that this scheme was not to come into operation until May, but the later announcements do give us some relief under that head, especially if we can receive through General Geddes the intimations which are to go to his various centres throughout the country. We have found, I think I may say, in most instances a desire on the part of the military authorities to apply that principle of equity and fair treatment as between man and man, and that, if they had been freer to act under their own personal disposition, they would not have placed us in the awkward and very embarrassing position in which we have been placed on many occasions. I complain on behalf of the General Labourers’ Council, and on behalf, therefore, of a number of highly skilled and a considerable number of

semi-skilled workmen, of the long delay which has been incurred in bringing us together to such a meeting as this and in arranging a scheme like the one now submitted. Here again I do not blame the War Office, because it appears to me that right from the beginning the War Office in this matter has had to comply with other agreements or arrangements made between representatives of the Government in other departments and certain trade unions.

"As trade unions we ought to regard the issues of the war not from the standpoint of the interests of our particular members, or our particular trades, but from the standpoint of the nation at large (hear, hear), and that I think we have done—we who have not been privileged to enjoy the shelter of the agreement entered into between certain of the craft unions, as they are termed, and the Government.

"Now soon after that agreement was entered into, we saw how it was going to work. We saw it was going, if not to break down, to break up the feeling of harmony that prevailed in the trade union ranks of Britain in respect to a successful prosecution of the war. Three reasons have been given from the other side of the table as to why the agreement has failed. Mr. Henderson said it failed to answer its purpose, and two other reasons were given by Dr. Addison. Neither of them gave the real reason why it has broken down, namely, that it was not fair as between workman and workman."

Dr. Addison: "That is what I said."

Mr. Clynes: "I am sorry I did not understand you in that form. I say it was not fair from the start. . . We do not say that a man because he is skilled should not be turned into a soldier, but we do say it is wrong that a man merely because he belongs to a particular trade union should have the right of being exempt from military service through receiving a card from that union, whilst an exactly similar workman, doing the same work, in the same shop for the same money under the same conditions and for the same object, should not have any kind of protection at all. (Hear, hear.) It is that which has created this feeling of enmity."

Mr. Clynes went on to suggest that the recent practice of consulting trade unions separately should be stopped. The craft unions might not like it, but in stern times the Government ought to tell people their duty. Why in this matter of national service should they be separated from the aristocracy of labour? They represented very large interests, certainly many hundreds of thousands of organised workmen, skilled, semi-skilled, and unskilled; and they had a right to be called into consultation, before these schemes were completed. But, by accident or design, they had been left out, and that created trouble. The more the Government could treat equitably and evenly the different branches of organised labour, the better it would be for them all.

Mr. Henderson replied\(^1\) that the responsibility for holding two conferences was his. It was only right and proper that the societies with whom the Government had entered into an agreement should be

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\(^1\) Hist. Rec./R./322/16, p. 27.
called together and given notice of its termination. Further, whatever the difficulties of the meeting with the trade card unions had been, they would have been aggravated beyond imagination by the presence of those who were not parties to the agreement.

The remainder of the conference was occupied with questions of detail arising out of the schedule, except that the opinion of the meeting was unanimous, that the unions outside the Dilution Agreement should have some representation on the Enlistment Complaints Committees. Mr. Henderson promised that this should have the careful and sympathetic consideration of the Government.¹

IV. Further Negotiations with the Trade Card Societies.

The committee appointed by the trade card societies conferred with Mr. Henderson and Dr. Addison on 10 April. Mr. Hill stated² that the representatives of the unions recognised that the need for men had become more acute, and they were prepared to meet the new situation. They had no desire to keep men in the trade who should be serving their country in some other capacity. But the men required could be released under the provisions of the Trade Card Agreement, which also provided means for dealing with any cases in which it had been violated. If these cases could be proved, they should be brought home not only to the individual unions concerned, but to the trade card societies collectively to deal with those unions. He still protested against the withdrawal of the agreement, which would cause very great dissatisfaction. The issue of the cards had scarcely been completed by some unions, others were still distributing them. Moreover, the proposed scheme would start from lists supplied by the employers, and this had engendered strong feeling. Though he recognised that the employers would not finally settle who was to go and who was to be left, still their lists would in many cases be decisive. Men would be omitted, and reasons other than military fitness would operate.

The other members of the committee took the same line. Mr. Henderson, in reply, welcomed³ the recognition of the need for men; the question was simply how best it could be met. The Government, after the most careful consideration, had decided that the trade cards must be withdrawn; but they offered in their place a fairer and more equitable method of protection. The position was then summed up in the following passage of arms⁴:

Mr. Hill: “May I just ask you this? If we are agreed here to give you the men you require of the ages you stipulate, what scheme can give you more?”

Mr. Henderson: “If we agree to give you all the protection that you are entitled under the circumstances to ask for, and if we give you that protection in such a form as will remove a sense of unfairness and injustice to a large number of your fellow trade unionists, are we not entitled to do so?”

¹ Hist. Rec./R./322/16, p. 34. For the trade unions represented on these committees, see above, p. 90, Note 2.
Mr. Hill : "That is a true Scotsman's way of answering a question."

Mr. Henderson : "It is a true trade unionist's way too."

Dr. Addison also emphasised the bitterness of the feeling of injustice which the Trade Card Agreement had produced among those who were excluded from it. He wished he could discover some device for utilising the trade cards in the new procedure; but nothing had been suggested that would work.

The committee reported the position next day to the full conference, which re-affirmed its resolution of 3 April, but decided not to break off negotiations, since there was a feeling that, notwithstanding the resolution, something might be done. The committee, therefore, met the representatives of the Government again on 12 April, but no settlement was reached. Explanations were given, obscurities were removed, consideration was promised for any amendments to the schedule, but, Mr. Henderson insisted, the trade card was dead. In the course of the discussion, however, Mr. Dawdrey put his finger on what proved to be the crucial difficulty. If apprentices and young journeymen, he said, were taken for the Army, while men who had been brought into the shops through dilution were left, there would be serious trouble. That, Mr. Henderson replied, struck at the fundamental principle of the whole scheme, for it ruled out the enlistment of the young men altogether.

Although the Amalgamated Society of Engineers was represented at the conference on 3 April, they took little part in the proceedings, had no representative on the committee referred to above, and finally withdrew from the joint negotiations. They claimed that since the Government had made the Trade Card Agreement with them separately, they were entitled to separate consultation concerning its alteration or withdrawal. Notwithstanding the resentment of the other unions, they had maintained their independent position at each critical juncture, in March, 1915, at the Treasury Conference, in the negotiations over dilution and the amendment of the Munitions of War Act towards the end of the same year, and again in November, 1916, concerning exemption from military service. They rested their claim on the strength of their membership, which exceeded 200,000, and on the fact that dilution affected them more vitally than any other society. They knew their power, and they were not prepared to run the risk of being voted down by unions with a tithe of their membership, or of finding their pitch queered by the concessions of those who had smaller interests at stake.

When the scope of the Government's policy was discovered, the executive of the A.S.E. summoned a national delegate meeting, which

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1 Hist. Rec./R./322/14, p. 15.
2 M.W. 14696/84.
3 See M.W.L.R. 139/11, p. 35.
4 Hist. Rec./R./322/15, p. 3.
5 Ibid., p. 7; cf. pp. 13, 14.
consisted of 48 delegates direct from the workshops and was the highest court recognised by the constitution of the society. On 23 April a deputation of delegates and members of council met the representatives of the Government. The chairman of the delegates, Mr. Hisee, stated\(^\text{1}\) that they had come to a unanimous decision that they could not accept the new schedule, and requested the retention of the Trade Card Scheme as essential to the production of munitions of war. Mr. Brownlie then put\(^\text{2}\) the case of the society. He asserted strongly the claim that they ought to have been consulted before any departure from the Trade Card Agreement was decided on. He pointed out the cost in which its administration had involved the A.S.E. He made light of the grievances of the unions excluded from the scheme. If skilled men chose to join them rather than their proper craft unions, they must take the consequences. He criticised the complexity of the new scheme, and in particular the waste of time and skill involved in sitting on enlistment complaints committees. He warned the Government that the feeling in the workshops against the withdrawal of trade cards was very keen indeed; his council had received hundreds of resolutions of protest from their branches; their district officials had experienced great difficulty in preventing their members from taking drastic action; the situation was very grave.

Mr. Brownlie’s statement was reinforced by several delegates from the workshops, who refused to discuss the merits of the new scheme; their mandate was the retention of the trade card. Mr. Young, however, the secretary to the society, indicated the terms on which a compromise might be reached:\(^\text{3}\) all men of military age, who had been brought into the engineering trade as a result of dilution and the suspension of trade union rules, must go out before engineers of any age were taken for military service.

On 26 April a second conference was held with the A.S.E. Much the same ground was traversed again; but, when Mr. Young repeated his suggestion, Mr. Henderson, who had been absent before owing to a Cabinet meeting, replied:\(^\text{4}\)

“I thought we had made it clear that we were quite as anxious as you can be to protect your skilled men. Any amendment to the schedule which you can suggest which will have that effect we are not only prepared to consider, but most sympathetically consider. If you will take the schedule as it is as a jumping-off ground and negotiate with us on the schedule, we can come to an arrangement to cover your skilled men. Let there be no mistake about that—there is nothing that you have said which I can object to. I want to get the men out who have only gone in lately.” (Hear, hear.)

The question was then raised whether the date on which the schedule would come into operation, 1 May, could be deferred. It would be necessary for the delegates to consult their constituents before they could proceed. Mr. Henderson undertook that no

\(^{1}\) Hist. Rec./R./322/17, p. 3 ; M.W.L.S. 108/26.  
\(^{2}\) Ibid., p. 32.  
\(^{3}\) Ibid., pp. 3–12.  
member of the A.S.E. should be called up until a settlement had been reached or negotiations were broken off.

The matter was considered by the War Cabinet next day. Mr. Henderson stated that the tone of the conference with the A.S.E. had been menacing. The delegates had demanded that the Trade Card Scheme should be continued, and threats of an immediate stoppage throughout the country had been used. There was undoubtedly grave unrest, which had been deepened by the Russian Revolution, and 1 May was Labour Day. It had been made plain to the delegates that the Government would only negotiate on the basis of the schedule, and would not countenance any return to the Trade Card Scheme. The delegates proposed to consult their constituents on 1 May.

Dr. Addison said he thought that the executive and the delegates were not at one, and he believed that the men would yield if the Government took a firm line; but it was necessary to allow the constituencies to be consulted. General Geddes explained that it was impossible to discriminate between members of the A.S.E. and other workmen. The only way was to grant a week's leave to all, and this would throw back the training of 120,000 men for a week.

In the discussion which followed it was generally recognised that any action which would stop the flow of recruits at a moment when the Army, already somewhat short of drafts, was engaged in a great offensive was to be deprecated. Nevertheless, it was agreed that to take any action during the coming week calculated to increase the resentful temper then prevailing, or to cause a strike which would delay shipbuilding and the output of munitions, would be a still greater evil. Moreover, it was considered that the postponement for a week would, in the long run, probably produce more recruits.

Accordingly the War Cabinet decided that the operation of the schedule should be postponed until 7 May.

V. The Beginning of the Strike, 30 April, 1917.

While the War Cabinet was discussing the menacing temper of Labour, Mr. Kellaway was explaining to a thin House the Ministry's Bill for the extension of dilution to private work. Three days later Lancashire was ablaze.

The trouble began at the works of Messrs. Tweedales & Smalley, Castleton, a controlled firm of textile machinery makers, which had introduced a large number of women for shell work. On 20 February, the shell contract being nearly finished, the firm ordered several of their men, members of the United Machine Workers' Association, to instruct some of the women how to operate grinding machines on ring spindles, without giving notice or opportunity for consultation as prescribed in paragraph 7 of the Second Schedule to the Munitions

1 M.W. 146937/149.  2 See Chap. III, Sect. VI.
of War Act. The men refused on the ground that the work was not munitions but commercial work, on which their union had not agreed to allow dilution. They were immediately discharged.

On hearing of this, Mr. Welford, Chief Investigation Officer of the North-West area, at once sent his assistant, Mr. Hadfield, to visit the firm. He saw one of the directors on 22 February, who confirmed the report, but said that he had put the women on commercial work rather than discharge them. Mr. Hadfield expressed the opinion that it would have been a better course to discuss the matter with the men first. The director replied that, if he decided to do anything, he was not going to discuss matters with any union men, since he never had recognised unions and never would. If the men objected to the women working on their machines, they could take their leaving certificates and clear out. On 28 February Mr. Welford forwarded Mr. Hadfield's report to the Ministry, adding that the men had apparently given up the idea of striking which they had threatened if the women were put on commercial work.

On 7 March the Ministry telephoned to Mr. Welford informing him that they could not support the firm in putting women on commercial work; he should warn the firm that if they proceeded and were involved in a strike, it was useless to look for the Ministry's support. On the same day about 30 men were given a week's notice on the ground of shortage of work, though the firm continued to employ the women. Four days later the secretary of the Rochdale Engineering Allied Trades wrote to the firm asking for an interview owing to the unsatisfactory discharge of these men. Receiving no reply, he wrote again on 13 March informing the firm that the members of the unions concerned reluctantly instructed him on their behalf to tender a week's notice. Next day Mr. Hadfield again visited the firm to arrange if possible some understanding with their workmen, but the directors were immovable. As they had run their own business for many years themselves, they did not intend to alter their methods for the Ministry or any one else; if they were to be forced to give way to the trade

1 "Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired." By Section 4 (4) of the Munitions of War Act the owner of a controlled establishment "shall be deemed to have entered into an undertaking to carry out the provisions set out in the Second Schedule to this Act." In Circular L.6, the Minister recommended a detailed procedure for giving effect to Schedule II, para. 7, to which the attention of employers was especially drawn in Circular L.29, instructing them to proceed with dilution. See Vol. IV, Part I, Chap. VI, Sect. V and Appendix VI.

2 It is significant in more ways than one that these men had been in the employment of the firm 12, 11, 19, 17, 25, 12, 11, 24, 18, and 25 years respectively. Brief for complainants. M.W.C.E. 997/5.

3 Report by Mr. J. W. Hadfield, dated 23 February, 1917. (M.W.C.E. 997/5.)

4 M.W.C.E. 997/5.

5 M.W.C.E. 997/5. Minute by Mr. C. S. Hurst, 7 March, 1917.

6 Ibid. Copies of letters by Mr. Tom Parkinson, dated 11 March and 13 March respectively.
unions, they would close the works. On the same day more than 400 tradesmen tendered their notices.

The Ministry was placed in a difficulty by these actions. The amount of munitions work directly affected was insignificant, and the case was at first thought to be a matter of academic interest. Could the refusal of the firm to recognise the unions be treated as a rule, practice, or custom restricting production or employment? Was the refusal of the men to agree to dilution similarly an infraction of Section 4 (3) of the Act? Had the men struck work in tendering their notices? Had the firm infringed paragraph 7 of the Second Schedule by not consulting their workmen? On such facts as were presented to him, the head of the Legal Section of the Labour Department minuted on 28 March that both sides seemed to be at fault; he did not see how the Ministry could prosecute one without the other. The better course appeared to be to send an officer of the Ministry to point out that both sides had put themselves in the wrong, and to endeavour to obtain a settlement.

Mr. Welford replied to this suggestion on 31 March that it was useless to send anyone to discuss the question with the firm. He had paid them several visits himself. In his opinion the only course was prosecution for a breach of the Munitions of War Act. Other employers were watching the case, since it was well known that the firm had not carried out the recommendations of the Ministry with regard to consulting their men; if the firm was not brought to book others would follow its example. Further the men were not trying to find other work, believing that if they did so the firm would be let off.

Accordingly, on 2 April Mr. Welford was directed to tell Mr. Binns, district delegate of the A.S.E., that if he would formulate a definite charge against the firm of refusing to comply with the Second Schedule, the Ministry would probably be willing to prosecute. On 10 April Mr. Binns drew up the charge, and on the two following days discussed the whole matter with the Department in London. On the 12th it was arranged that the Ministry would write to the firm, and if necessary prosecute.

The Ministry's letter was not despatched until 23 April; nor did the firm reply to it until 1 May. In the meantime events had

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2 Ibid. Minute by Mr. P. G. Hurst, 26 March, 1917.
3 Ibid. Minute by Mr. J. C. Miles, 28 March, 1917.
4 Ibid. Minute by Mr. Welford, 31 March, 1917.
5 Ibid. Minute by Mr. P. G. Hurst, 2 April, 1917.
6 Ibid. It was also alleged that the firm was engaging girls on the understanding that they would be trained as apprentices to be retained after the war.
7 Ibid. Minute by Mr. C. S. Hurst, 12 April, 1917.
8 Ibid. In their reply the firm stated: "It is not true that we have in any instance refused to consult with our men as we are always amongst them and they have every facility for consultation given them. It is, however, quite true that we have refused to meet the various officials of the different unions, as we hold strongly that if we cannot agree with our men, the best course is for us and them to part... A few of the women employed on munition work have been drafted on to textile work for short periods when the war work has run short, but at no time has the number averaged one per cent. of those employed. In all these cases the men have had full knowledge and required no special notice,
moved rapidly. The Department received repeated warnings\(^1\) that the situation was very grave; the men were becoming exasperated; if something was not done quickly a great sympathetic movement might come to a head. The council of the A.S.E. expressed their extreme anxiety to avoid anything of this kind, and Mr. Binns did everything in his power to restrain the men in his district and to impress on the Ministry the peril of delay. On 29 April a mass meeting of 2,000 men at Rochdale passed the following resolution:\(^2\)

"That this mass meeting emphatically pledges itself to resist to the utmost the extension of dilution on private commercial work, and calls upon the Government to at once put into operation section 42 of the Defence of the Realm against the firm of Messrs. Tweedales & Smalley, and, failing a satisfactory settlement on or before 2 May, that the whole of the workmen employed in the trade in Rochdale and district cease work on 3 May as a protest against the continuity of this dispute."

To these warnings and requests for action the Ministry could only offer one reply:\(^3\) the Department was still in communication with the firm, but if it appeared to be established that an offence against the Munitions Act had been committed, and no satisfactory explanation or assurance was given, the Department would be prepared to take proceedings before the munitions tribunal.

and when the 412 men out of a total of 1,500 employees left us on March 21, we had not one woman working on textile work. We should also like to add that in consequence of some of our war contracts running out, and the new contracts stipulating that we are to employ 80 per cent. of women on them, it would have been necessary in the course of two or three weeks to have dispensed with a large proportion of the men who left us."

On 4 May the firm met the men's representatives and agreed, in order to remove the responsibility for the continuation of the strike from the firm, to acknowledge the unions for the period of the war and to reinstate the men. (Letter of 5 May.)

On 8 May the case was brought before a General Munitions Tribunal at Rochdale. The Chairman, Mr. A. J. Ashton, K.C., after some hesitation, ruled that the words of paragraph 7 of Schedule II, were wide enough to cover the case. He would, however, not be sorry if there was an appeal with regard to it. The Court, accordingly, found that the firm had committed two offences: they had not given due notice, nor had they given the opportunity for local consultation with their workmen. For the first offence the fine was £25 and £10 10s. costs, and for the second, £10 and £10 10s. costs. (Copy of Judgment.)

No appeal was made; but it may be pointed out that it was not easy to prove that the changes in question were "the result of the establishment becoming controlled" when in fact, what was complained of related to private work only. Moreover, Circulars L.6 and L.29 were not binding under the Munitions of War Act. On the other hand they were binding under Defence of the Realm Regulation 8A (b), and in the opinion of counsel proceedings under that Regulation for non-compliance with these Circulars would have been much more effective than the actual charge. (Copy of opinion by Mr. A. S. Comyns Carr, dated 4 May, 1917.)

\(^1\) e.g., from the executive council of the A.S.E. on 18, 20, and 30 April, from Mr. Binns on 17 April, from Mr. T. Parkinson on 23 and 29 April, from Mr. Coates of the United Machine Workers on 23 April. (M.W.C.E. 997/5.)

\(^2\) Ibid. Letter from Mr. T. Parkinson, 29 April.

\(^3\) Ibid. Copies of telegrams to Mr. Coates, Mr. Parkinson, Mr. Welford, 30 April.
On receiving this message on 30 April Mr Binns replied:—"Your wire is useless. Lancashire determined to have matter settled. Cannot control position. Too long delayed." At 5.30 that afternoon the Manchester men, under the leadership of the shop-stewards’ committee, threw down their tools in sympathy with the Rochdale men and in protest against dilution on private work.¹

VI. The Agreement with the A.S.E. concerning the Schedule of Protected Occupations, 5 May, 1917.

On Wednesday, 2 May, the negotiations between the Government and the A.S.E. delegates and executive were resumed. Mr. Brownlie opened the proceedings by stating² that during the week end the delegates had consulted their constituents and explained to them the new scheme of protection; at every meeting resolutions had been carried to the effect that their members desired the retention of the Trade Card Agreement. Mr. Henderson replied³ that the Government could not alter its decision, but "we offer you the full equivalent to the card scheme in the shape of the schedule, which, as we intend it, will be a full protection for your skilled members."

Mr. Brownlie replied that he could not proceed without further consultation with the delegates. Accordingly they retired and passed the following resolutions:—⁴

(1) Before any skilled men or apprentices covered by the dates stated in the schedule are liable to military service, all male workers introduced by the dilution scheme must be withdrawn from the trade.

(2) Skilled men and apprentices in the engineering trade employed on other work regarded as nationally essential shall have equal protection to those covered in the scheme.

(3) All skilled men and apprentices not on Admiralty, War Office, or Munitions work, or in Railway shops, or in other work regarded as nationally essential shall be enrolled as War Munition Volunteers and transferred to war work or other essential work in place of the diluted men transferred to the Army.

The representatives of the Government then retired and made the following counter-proposals:—⁵

(1) Before any skilled man or apprentice who is not covered, owing to age, by the Schedule of Protected Occupations is taken for military service, all male diluted labour liable and fit for general military service in that occupation in the establishment in which he is employed shall first be withdrawn.

(2) All skilled men and apprentices who are in a scheduled occupation but are not protected by the Schedule because they are not engaged on Admiralty, War Office, or Munitions work, or in Railway workshops, or in other work certified by the

¹ M.W.C.E. 997/5. Copy of letter from Mr. Binns to Secretary of A.S.E., 30 April.
³ Ibid., p. 2.
⁴ Ibid., p. 5.
⁵ Ibid., p. 6.
War Cabinet as nationally essential shall, if eligible by reason of their occupation, be enrolled as War Munitions Volunteers for transfer to war work. Pending such transfer, if otherwise eligible for protection under the Schedule, they shall be entitled to the protection given by the Schedule.

(3) Such skilled men and apprentices enrolled as War Munitions Volunteers who are not employed on war work but are employed on other work certified by the War Cabinet as nationally essential shall have equal protection to those engaged on war work.

Mr. Brownlie promised that the delegates would give these proposals their earnest and serious consideration with a sincere desire to come to an amicable understanding with the representatives of the Government in the interest of the nation. "They realise their responsibilities in this matter; they realise what the nation is demanding of the workers of the country; and they realise the danger which the country is subjected to by the operation of the German submarine menace." He added that it would go far towards enabling the delegates to come to a speedy and amicable settlement if Mr. Henderson could give them a pledge that, should the Government find it necessary to modify the schedule, the trade unions would be consulted before any definite instructions were issued. Mr. Henderson replied:

"If we come to an agreement on the basis of the amended proposals which we submitted, I have no hesitation in saying that, if material or substantial alteration has to be made to the Schedule, it will be our business to call representatives of all organised workers with whom we have arranged the Schedule into consultation and conference, even if we cannot give them all they want when we get them here."

The subsequent negotiations turned on the first of the Government's proposals. On 3 May the delegates pressed for amendments which altered the clause as follows:

Before any skilled man or apprentice who is not covered, owing to age, by the Schedule of Protected Occupations is taken for military service, all male diluted labour fit for military service shall first be withdrawn.

These amendments knocked the bottom out of the schedule. They put the Government in a dilemma: either no skilled man or apprentice could be taken for the Army; or, the workshops must be utterly disorganised by the withdrawal of every "dilutee" of military age who was not rejected as absolutely unfit for any kind of military service whatever. The term "diluted labour" covered not only the grocer and the pork-butcher, but all the men who had been up-graded, such as semi-skilled machinists and fitter's helpers, and the tool-setters and gauge makers who had been specially trained by the Ministry. Nor should it be forgotten that the great bulk of these men were unfit

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2 Ibid., p. 8.
for general service, that the Army had already more men of low medical grade than it knew what to do with, and that the Government in the face of the submarine menace had decided that the shipyards and the marine engineering shops must not be interfered with.

Mr. Henderson, therefore, insisted¹ that the original words "liable and fit for general military service" must be retained. It was, however, agreed,² after lengthy discussion, to amend "establishment" to "munitions area." The A.S.E. pointed out with some force that trouble would arise if their men were taken from one establishment and left in another across the street. Accordingly, the munitions area was accepted as the unit, although this concession greatly reduced the probable yield of men for the Army, because it extended the protection granted to a single marine engineering shop throughout the area in which it was situated.³ It was also agreed⁴ to add words at the end of the clause, in order to prevent any appearance of differential treatment. So amended, the delegates agreed to accept the clause, which ran as follows:⁵

Before any skilled man or apprentice who is not covered, owing to age, by the Schedule of Protected Occupations is taken for military service, all male diluted labour liable and fit for general military service in the occupation in the munitions area in which he is employed shall first be withdrawn. All munitions areas to be dealt with simultaneously, that is to say, no particular munitions area shall be singled out to be dealt with specially.

On the following day a number of subsidiary questions was discussed, of which one only need be considered here. In the Notes to the Schedule, it was stated: "For the present it is not intended . . . . to enlist from Admiralty, War Office, or Munitions work in the industries dealt with in this schedule, men who had attained the age of 32 by 1 January, 1917." The A.S.E. had assumed that their agreement in conjunction with this note, which protected the "dilutees" over 32 years of age, made it impossible to take any of their men for the Army until the schedule had been amended after further consultation with themselves. Incidentally it appeared that the representatives of the Government held a different opinion.⁶ In their view the negotiations with the A.S.E. and the agreement reached were limited by the cardinal principles of the schedule, one of which was stated in the Note referred to. From this they argued that skilled men and apprentices not covered by the schedule, owing to age, could be taken for the Army, as soon as the dilutees fit for general service had been withdrawn up to the age of 32. The A.S.E. replied that in that case they had been under a misapprehension all the time. Their main point was that all the dilutees fit for general service should go first. If the other position was maintained, their whole agreement went by the board.⁷

² Ibid., p. 11.
³ In every area but one there were Admiralty firms engaged on shipbuilding, ship repairing, or marine engineering.
⁴ Hist. Rec./R./322/20, p. 16; p. 19.
⁵ Ibid., p. 24.
⁷ Ibid., p. 20.
This deadlock rendered another conference necessary on 5 May. Dr. Addison and Mr. Henderson then confirmed the interpretation put forward by the A.S.E.\(^1\) It was not intended to call up any of the skilled men or apprentices until all the dilutees in the area fit for general service had been called up; nor was it intended to call up any man beyond the age of 32 until the Government had again conferred with the trade unions and amended the schedule.

Thus the A.S.E. secured, for the time being, complete exemption for their skilled men and apprentices. These could not be touched until the schedule was again put into the melting pot of negotiation with the trade unions. Little acumen was needed to foresee that the Government would be in no hurry to renew this experiment.

After several minor questions had been dealt with, and Dr. Addison had made a strong appeal to the delegates to keep their men at work, they agreed late on the Saturday night that the following telegram should be sent to their local officials:\(^2\)

"Delegates have reached agreement with Government, and arrangements have been come to in connection with the schedule of protected occupations which provide adequate protection for skilled men and apprentices. Delegates urge there should be no stoppage of work."

Unfortunately the nature of the agreement was such that it could not be explained to the public.

**VII. The Extension of the Strike.**

If the engineers' strike had not already begun, the agreement with the A.S.E. might have prevented it. But the shop-stewards' movement had five days' start and was not amenable to the authority of the union executives. By 5 May it was claimed that 60,000 men were idle in Lancashire, and their leaders were sparing no effort to bring the men out elsewhere. Moreover, the strike had begun as a protest against dilution on commercial work, with the trade card grievance as a secondary motive. But the agreement with the Government did not directly touch dilution, and needed much interpretation before the rank and file could be satisfied that it retained practically all the privileges of the trade card.\(^3\) On the other hand, outside of Lancashire, where feeling against the Dilution Bill ran strongest owing to the magnitude of the textile machinery trade, the main object of the strike was the retention of the trade card. Its rapid extension, therefore, in the second week of May must be explained by the momentum which

\(^1\) *Hist. Rec./R./322/22*, p. 6; *M.W.L.S.* 108/26.


\(^3\) It differed in one material point only: the enlistment complaints sub-committee instead of the trade union official decided on the individual's claim for protection. This difference was emphasised by the workmen who did not appreciate the value of the untried machinery; but in practice it was not great. Apart from this, it must not be forgotten that the schedule afforded a sound basis for the readjustment of the recruiting policy, whereas the Trade Card Agreement did not. The Government, therefore, insisted on the schedule, though its immediate value might appear small.
the shop-stewards' movement had already acquired and by the difficulty
of vindicating in an atmosphere of suspicion the guarantees obtained
from the Government by the A.S.E. For it was widely believed, and
more widely asserted, that the Government had treated its pledges in
respect of trade cards and dilution alike as "scrap of paper."

In guerilla warfare it is difficult to give a connected account of the
operations. Many actions depend on the exploitation of circumstance
rather than on deliberate plan. The shop-stewards not only could not
avail themselves of the central, nor after the first week of May of the
local, organisation of their trade unions, but they found it unsafe to
use the post or the telegraph. Since the newspapers at first published
no news of the strike, and subsequently only official information, the
strike leaders were further handicapped, although the Government
also suffered from the utter scepticism which the press censorship
produced. Further, it was hardly possible to get posters or handbills
printed, and the greatest circumspection was necessary in addressing
mass meetings. The control and direction of the strike, therefore,
depended on emissaries who travelled from one centre to another by
motor-bicycle—a method which tended to dissipate the energies of the
more forcible and influential leaders.

The earliest evidence of the policy of the strike is found in two
resolutions passed by a mass meeting at Manchester on 22 April,
under the auspices of the Joint Engineering Shop Stewards' Committee.
The first pledged the meeting to resist drastically the extension of
dilution to commercial work, and instructed the committee to take a
ballot of the district for or against the cessation of work on 30 April,
in support of the Rochdale strike. The second protested against the
withdrawal of trade cards and called on the union executives to place
the protest before the Government; failing this, the men would adopt
any methods they considered advisable. Covering these resolutions,
Mr. G. Peet, hon. secretary of the Manchester committee, wrote to
Mr. J. T. Murphy at Sheffield: "If we are beat on these two matters,
then the shutters may as well be put up as far as the working class
movement is concerned."

1 Cf. the Birmingham resolution contained in a letter from the Chief Dilution Officer, 30 April. (M.W.L.R. 146/2.)
2 e.g., the following circular was stopped by the printer: (M.W.L.R. 238/22)
   "You have by your apathy allowed yourselves to be robbed of rights
   and liberties which you possessed prior to the war.
   "Your official organisations, buffeted by legal enactments, have
   become as waterlogged derelicts on the Sea of Progress, at the mercy
   of the wages of Capitalism, and a danger to those voyagers who are looking
   forward to the Harbour of Refuge—the emancipation of the Working
   Class.
   "If you are to succeed at all, you must of necessity adopt unconsti-
   tutional methods, seeing that your constitutional bodies are shackled
   beyond all hopes of action.
   "Your last remnants of liberty are in vital danger...
   "Think well of these things and decide to act and act quickly...
   "Look out for meetings arranged."
3 Minute by Mr. Wolfe, 28/4/17. (M.W.L.R. 146/2.)
4 Minute dated 7/5/17. (M.W.L.R. 238.)
As a result of the ballot the committee decided on 29 April that work should cease in the Manchester district the following afternoon, in support of the Rochdale strike and against the Dilution Bill then before Parliament. It was also decided that as from 5 May the down tools policy should become operative against the withdrawal of the trade cards.¹

The shop-stewards were no doubt put out by the Cabinet’s decision to postpone the operation of the schedule from 1 May to the 7th. In the last week of April the A.S.E. had held meetings throughout the country which unanimously demanded the retention of the trade card. Everywhere the rank and file were ready to strike the moment any skilled engineer was called up under the new scheme.² Its postponement and the subsequent agreement with the A.S.E. deprived the shop-stewards of the detonator on which they had reckoned to produce a simultaneous explosion in every district.

The procrastination at Rochdale, and the Second Reading of the Dilution Bill on 27 April, gave the shop-stewards their opportunity in Lancashire. But the extension of the strike elsewhere swayed in the balance for several days. Many stormy meetings were held on Sunday, 6 May, at which the delegates and officials of the A.S.E. tried to explain the safeguards they had secured, and spoke against the policy of a strike, but they found the feeling of the rank and file flowing strongly in the opposite direction.³ Suspicion was rife; even the telegrams, dispatched to the districts the night before urging no stoppage of work, were discounted because they had been sent O.H.M.S.⁴ Many districts hesitated; but a mass meeting at Sheffield resolved to strike, and on 7 May, 10,000 men came out there, followed by 5,000 at Rotherham the same night. Next day the strike extended to Coventry, affecting 30,000 men; Derby followed on the 9th, Crayford and Erith on the 10th, and Woolwich on the 11th. By the end of the week the strike was general in and around London.

On the other hand, no move was made on the Clyde, the North-East Coast, or in Birmingham. The complete protection afforded by the schedule to shipyards and marine engineering shops no doubt helped to keep the men steady in the North; the fear of dilution was less acute owing to the care with which it had been introduced by the Clyde and Tyne Commissions a year before; at Newcastle the authority of the trade union officials was very great, and the convener of the shop-stewards at Parkhead Forge, the storm centre of Glasgow, told the men that the Government’s safeguards might be regarded as satisfactory. Birmingham, which had neither of the two former

¹ Copy of letter signed Geo. Peet, 29/4/17. (M.W.L.R. 238/7.)
² See Minute by Mr. C. S. Hurst, 26/4/17. (M.W.L.R. 238.)
³ It may be noted that the critical moment on the Clyde, which did not strike, was 9 May, when the military authority called up a man and on his producing his trade card told him that it was obsolete. M.L. 2440/37, p. 39, a valuable and detailed account of the strike, compiled from materials in the possession of the Ministry of Labour.
⁴ e.g., in London. (M.L. 2440/37, pp. 20, 21.)
advantages, was kept in hand by the exertions and authority of the local officials, in particular, Mr. Ryder, district delegate of the A.S.E., and Mayor of Smethwick.¹

Barrow was exceedingly restless, and great efforts were made to bring the men out there. But the indecision of their leaders and small ballots with contrary results² postponed the strike until 21 May. Nor did the men on the Mersey cease work until the 14th, when the rest of Lancashire began to return.³

As soon as it became evident that the agreement of 5 May would not stop the strike, the Government sought further conferences with the trade unions. Dr. Addison and Mr. Hodge met the Council of the A.S.E. on 9 May, and asked them what steps they were prepared to take to assist the Ministry in getting the men back to work.⁴ The A.S.E. replied that the principal cause of the trouble was the Dilution Bill. In spite of the pledges to restore suspended practices a strong agitation had developed against restoration.⁵ Was it, then, surprising if the men said that dilution should go no further? Dr. Addison said that he would gladly discuss the Bill with the A.S.E. if the men returned to work, but negotiations were impossible while they stayed out. He could postpone the Report stage for ten days; but he must go on with the Bill. The A.S.E. promised to consider this suggestion; but later in the day they wrote to Dr. Addison stating that in their opinion no useful purpose could be served by asking their members to return to work merely on the terms of a discussion of the Bill then before Parliament.

The Government obtained more satisfaction next day from a conference⁶ with the representatives of the other unions. Mr. Henderson described the situation as one of the most menacing in his experience of the war. There was a spirit of revolt abroad; and the revolt was directed against the executive authority and discipline of the trade unions. He had set his face like flint against anything calculated to undermine that discipline and authority. The Government would treat with the executives of the unions, but with them only. After many questions and a long discussion the following resolutions were passed:—⁸

"That this meeting, representing fifty societies connected with the engineering and shipbuilding industry, hereby reaffirm their conviction that in war time all trade disputes should be dealt with in a constitutional manner, and deeply deplore the existing unauthorised strike.

¹ M.W.L.R. 238/44.
² A ballot on 13 May resulted in 1,128 for, 714 against striking; three days later the result was reversed, 1,808 voting against, 1,164 for a strike. The number who voted here, as everywhere else, was only a small proportion of the men concerned.
³ The strike also broke out in Bristol, Peterborough, Luton and Bedford (12 May), Southampton (14 May), Nottingham and Ipswich (16 May), Leeds and Crewe (21 May).
⁴ M.W.L.R. 238/6, p. 2.
⁵ Ibid., p. 8.
⁶ M.W.L.S. 108.
⁷ M.W.L.R. 139/11.
⁸ Ibid., pp. 57 and 60.
"That this meeting resolves to appoint a committee to consider the Munitions of War (Amendment) Bill now before Parliament and to confer with the Minister of Munitions on the terms of the Bill or any grievances which might be removed by introducing further amendments."

On the same day, 10 May, Mr. Peet telegraphed to the Minister of Labour:—

"Joint Engineering Shop Stewards' Committee repudiates any interference by the official executives of the workers in the present dispute."

Thus the breach between the strike committee and the executives of the unions was accomplished, and the Government spared no effort to press their advantage home. Mr. Bonar Law had already emphasised the point in his answer to a question in the House of Commons on 9 May. Throughout the following week, in the press and by poster, the Ministry insisted that the strike was as much a rebellion against the executive authority of the trade unions as a protest against any action of the Government. Whatever their sympathies may have been in the early days of the movement, the trade union leaders now realised that they must do what they could to reassert their control.

On 11 May, representatives of the engineering unions held a conference in Manchester and issued an official statement, pointing out to the strikers that they were seriously endangering their recognised institutions. "We recommend, in the best interests of trade unionism and all that it stands for, that all men should at once resume work and await a full and accurate explanation of all the circumstances." Next day they passed a resolution, repudiating the action of the Shop Stewards' Committee—"an irresponsible and unauthorised body"—and instructing their members to resume work on the 14th. Nothing further would be gained by a continuation of the strike. The A.S.E. also issued a statement from headquarters that neither their executive council nor their London district committee had authorised any cessation of work either in the London district or elsewhere.

On the 11th the Ministry also issued posters throughout the country denying the widespread rumour that the Dilution Bill would apply for seven years after the war, quoting the trade unions' resolution of 10 May and the shop stewards' telegram of the same date, and underlining the moral, calling upon all loyal citizens to resume work immediately, and giving notice that all persons "who incite to any stoppage of work on munitions are guilty of an offence under the Defence of the Realm Regulations, the punishment for which is penal servitude for life, or such less punishment as may be awarded."

The effect of this policy varied according to the strength of the local trade union officials. In some important districts, as has been shown, they prevented a stoppage of work. Though Coventry was affected by two of the most extreme shop stewards, the strike collapsed there
in less than two days owing to the vigorous action of Mr. C. Davis, the chairman of the Coventry Engineering Joint Trades Committee. On 9 May he obtained a telegram from the Minister of Labour confirming the statement that the Dilution Bill was purely a war measure; and his committee passed a resolution, regretting the action of members who had ceased work under the instructions of an unauthorised body, and instructing all members affiliated to the committee to resume work without delay. Next day the great majority of the men went back. Three days later the remnant held a mass meeting, and their leaders, seeing that the game was lost, recommended a resumption of work.

In Lancashire, Rochdale returned to work on 8 May, the trouble at Castleton having been settled. This had little effect elsewhere, but it was the first rebuff which the Manchester shop stewards suffered. By the end of the week, however, the local officials began to recover some control of the situation; and during the third week of May there was a steady improvement throughout Lancashire, with the exception of the Mersey district, where the strike broke out on the 14th.

VIII. The Settlement of the Strike, 19 May, 1917.

At a joint conference of strike committees held at Derby, on 12 May, it was decided to summon a national conference in London, ostensibly in order to co-ordinate the local movements, but in fact to end the strike. On the 15th a hundred delegates met at the Fellowship Hall, Walworth, and after sitting all day, decided to open negotiations with the Ministry of Munitions. The next morning Dr. Addison received a letter signed by a deputation of ten delegates, who desired to bring to him personally the considered opinion of the conference on the stoppage, with a view to arriving at a satisfactory settlement. "Further," the letter proceeded, "as duly accredited representatives of the men directly affected, we submit that you should view this deputation as being the most competent body to deal with the matters in dispute."

Dr. Addison replied the same day as follows:—

"The Ministry of Munitions has always welcomed opportunities of meeting the authorised representatives of trade union organisations. It is our duty, having regard both to the comprehensive and effective consideration of questions involved, and to our repeated undertakings to the great trade unions, that we should consistently maintain this policy. We shall be glad, if asked to do so by your executives, to meet them, accompanied by yourselves or by any other body your executives may desire to bring with them, but we cannot receive you under other circumstances."

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1 M.W.L.R. 238/3, 238/44. This committee covered 14 societies, including the A.S.E., with a local membership of 26,000.
2 M.W.L.R. 238/3.
3 See above, p. 104, Note 8.
5 The letter, which was written on House of Commons notepaper, was signed by Wm. Edwards, H. Hall, W. C. Hollick, H. J. Hamilton Cardwell, W. F. Watson, R. C. Kiloh, Geo. Peet, Wm. McLaine, D. Ramsay, and E. Airey (M.W.L.R. 238/16).
6 Ibid.
A copy of the correspondence was sent to the executive council of the A.S.E.

Dr. Addison was taken to task in the House of Commons next day by Mr. W. C. Anderson, who moved\(^1\) the Adjournment of the House on the failure of the Ministry to negotiate. Major Hamilton also, in the course of a speech extenuating the behaviour of the shop stewards, considered\(^2\) that Dr. Addison had made a great mistake in refusing to meet the strikers' representatives. But the Minister stoutly defended his action.\(^3\) The Government was determined to adhere to its policy of negotiating on labour matters only with and through the duly accredited representatives of Labour. To recognise the shop stewards would be nothing short of a betrayal of the trade unions. Moreover, to whom were they responsible? "You make a bargain with them. Can they deliver their share of the bond? . . . . Supposing they can deliver their side of a compact for their shop, who is to say that tomorrow another body will not come from another district and want another bargain in another shop? That is not industrial peace; it is the high road to industrial anarchy."\(^4\)

On the same day two important events happened. The members of the Electrical Trades Union struck in the London district, where it was estimated that 17,000 men were affected, and attempts were made to stop the power houses in Manchester and other parts of the country.\(^5\) The Government determined to take measures against the leading shop stewards. At a conference\(^6\) held at 10, Downing Street, the Prime Minister being in the chair, it was decided that the Attorney-General should examine the list of persons against whom there was sufficient evidence to warrant proceedings under the Defence of the Realm Act for inciting to the recent stoppage of work in the engineering trade, and that eight or ten of those who appeared to be principally concerned should be arrested and tried by jury at the Old Bailey.\(^7\) Seven of the men were apprehended early the next day and remanded at Bow Street until the following Wednesday. On undertaking not to say or do anything in connection with the strike they were allowed bail, but being unable to find sureties were removed to Brixton Gaol.

In the meantime, the executive of the A.S.E. had entered into negotiations with the Walworth Conference. After much plain speaking on both sides the following resolution\(^8\) was passed on the evening of 18 May by a committee representing the conference:

"That we hereby request the executive council to attend with us at the Ministry of Munitions, in order to state our case, and then

\(^1\) *Parliamentary Debates* (1917), *H. of C.*, XCIII, 1872 ff.


\(^5\) M.W.L.R. 238.

\(^6\) M.W. 146967/149; Lord Milner, Mr. Henderson, Dr. Addison, Sir F. E. Smith, and a number of permanent officials were also present.

\(^7\) The persons selected were S. Burgess, W. Hill (Sheffield), T. W. Dingley, N. Cassidy (Coventry), G. Peet, P. H. Kealey (Manchester), A. McManus (Liverpool), W. F. Watson (London), H. J. H. Cardwell (Erith) and D. Ramsay (Leicester). The last two named were not arrested.

\(^8\) M.W.L.R. 238/33.
immediately return to our districts, telling them we have carried out our mandate, and advise them to return to work, leaving the matter with the executive council on receiving assurances of no further arrests, of no victimisation, and in regard to releases.”

The Executive immediately rang up the Ministry and fixed a meeting at 11 the following morning.

A hitch occurred at the outset which would have delayed the settlement but for the tact of Dr. Addison and Mr. Brownlie. Mr. Edwards, who led the shop stewards’ deputation, began by stating that the arrests had entirely altered the situation. He had understood that while negotiations were proceeding the police would not interfere. Unless he could obtain an assurance that the men would be released from prison and the charges deferred pending the result of the negotiations, he and his friends must simply go back to Walworth and resign. Dr. Addison, however, showed his anxiety to hear all the deputation had to say, and Mr. Brownlie, after a short private meeting, persuaded them to proceed.

Mr. Edwards then stated the case of the shop-stewards. They were not responsible for the men’s coming out; the trouble was not the result of the efforts of a few, but rather the reflex of the conditions under which the men lived and worked. The main cause of irritation was the withdrawal of the Trade Card Scheme. That terminated what appeared to the workmen a series of broken agreements, agreements broken by the Government. The members of the A.S.E. regarded the Trade Card Scheme as a triumph of organised effort; the compromise accepted by their delegates did not carry out what undoubtedly would have been the mandate of their membership, if their pulse had been felt accurately. The other cause was the extension of dilution to commercial work. The men would not accept the Dilution Bill, because it undermined their position after the war. They knew that their executive had all along opposed the measure, but it was not able to make its opposition effective. They felt therefore that constitutional practice must go by the board. “There is no power behind the elbow of constitutional practice to-day, and force has got to meet force.”

Mr. McLaine elaborated the last point:—

“We have no desire and no intention of undermining the authority of our trade unions; on the contrary, we are out for the specific purpose of backing up our trade unions. The actions of you and your colleagues—that is to say, the Government—have placed our unions in such a position that they are no longer able to function as trade unions should. They can come and discuss things, but if you turn them down their function as a trade union ends; they can go no further. But we, the men in the workshops, can go and have gone further, not because we wanted to, not because we like short weeks, or that we strike for the fun of the thing, but because we have been forced to do so by the position in which our unions are placed. We are desirous,
first and foremost, of strengthening the hands of our executive. We know and we understand that our executive have tried to do what they could, but your colleagues have prevented them from doing what they wanted to do. You have check-mated them and held them off. So we have been forced to be the driving force behind our executive, in order that the point of view of the men who are working under the conditions that are operating at the present time should be made known. We have been obliged to adopt these methods, not because we wanted to, not because our A.S.E. wanted to, but because you have forced us to adopt them. You and your colleagues are entirely to blame for the present situation. That is our opinion at any rate, and the opinion of the men up in the North, and in other parts of the country. During the past two years, in spite of all pledges, in spite of all promises, our position has been so undermined that no longer is it possible to say that we have organisations that are capable of acting for us in the direction in which we want them to act. We have not undermined the organisations, but the Government has undermined them, and nobody else at all.”

Both of the delegates insisted¹ that the arrests had aggravated the situation. They had to come to London to end the dispute; that was their instruction—to get it ended as soon as possible. They were prepared to return to their districts and advise the men to resume work. But this action of the Government had put down their influence to a minimum.

After Dr. Addison had made a conciliatory speech² and declared that he was prepared to go a very long way to meet the workmen by amending the Munitions of War Acts, the deputation withdrew and left their executive to negotiate the terms of settlement, which were confirmed by the Prime Minister the same day and ran as follows:—³

It was agreed

(1) That the members of the unofficial strike conference should return to their districts in accordance with the resolution of the deputation from the unofficial strike conference, which waited upon the Executive Council, and should advise the men to return to work at once; and that a public statement should be made to this effect.

(2) That the members of the unofficial strike conference should leave the Executive Council to conduct negotiations with the Government, in regard to existing differences, and should use their best endeavours to secure the continuance of this practice, with a view to the avoidance of any stoppage of work in the future.

(3) The Executive Council will issue an instruction to the men now on strike immediately to return to work.

(4) That the Government will not authorise the arrest of further men in connection with the present strike, in addition to the ten men against whom warrants have been issued.

¹ M.W.L.R. 238/33, pp. 4, 5, 10, 14. ² Ibid., pp. 23–34. ³ Ibid.
(5) That no further action will be taken to effect the arrest of the two men out of the ten against whom warrants have been issued, who are not already in custody.

(6) That the Government will be prepared to suggest to the Magistrate, that, pending the trial of the eight men who have been arrested, they should be allowed out of custody on their own recognizances to be of good behaviour.

(7) That there should be no victimisation in consequence of the present strike in any Government or Controlled Establishment.

The settlement was prejudiced for some days by the arrests. At Barrow, Crewe and Leeds, indignation was so strong that the moderate party which had hitherto succeeded in maintaining a precarious equilibrium was swept aside, and the men struck. Although the strike committee at Sheffield recommended a return to work, the majority of the strikers remained out on the Monday; and the men on the Mersey refused to resume work. In and around London most of the strikers returned on 21 May, but many still stayed out. Elsewhere the men contented themselves with passing strong resolutions against the arrests, but resumed on the Monday.

When the men who had been arrested came up again at Bow Street on 23 May, the Attorney-General, Sir Frederick Smith, asked leave to withdraw the charges against them. They had each signed an undertaking to adhere to the agreement arrived at on 19 May between the Minister of Munitions and the Executive Council of the A.S.E. acting at the request of the unofficial strike committee and on their behalf. If they had not done this they would have been indicted for felony before a jury. The Government was anxious to listen to the expression of every just and reasonable grievance. But it could negotiate only with the chosen leaders of the trade unions. The certain result of persistence in this strike would have been a shortage of shells, aeroplanes, heavy guns at the front. “The certain result of that shortage was this, that men who cannot strike—our soldiers—would be killed who otherwise would not be killed. Let no subterfuge attempt to gloss over this. If there is a strike for one fortnight in the munition factories, English lives would be thrown away which could have been saved if that strike had not taken place.” The Attorney-General described how on 19 May the shop-stewards had agreed to put their affairs in the hands of their executive, that executive with which the Government was always willing to deal. There remained the question of the course proper to be adopted towards the defendants. He had reached a conclusion upon it, but only with the greatest difficulty. The instrument of the criminal law should never be used as a pawn in industrial strife. So used, it brought the law and its administration into deserved contempt. But the defendants had signed the undertaking; and by signing it they had recognised the proper authorities.

1 M.W.L.R. 238, 238/3, 146/2.
2 A ballot at Barrow on 20 May resulted in 1,783 votes for, 218 against striking. (M.W.L.R. 238/23.)
3 Report of Proceedings before the Chief Magistrate. (M.W.L.R. 238/40.)
4 Ibid.
By this appropriate though tardy submission at a crisis of the most prodigious gravity, they had created an atmosphere in which it was possible to decide on the side of leniency. He concluded, however, with a warning:

"If there be a recurrence of deliberate attempts to incite strikes with the object of impeding the supply of munitions there will be no further withdrawal. Those, if there be any such, who leave these proceedings with their hearts unpurged of bitterness, I most solemnly warn them that the next breach of the law will be dealt with at the Old Bailey Sessions by a jury of their countrymen, and the decision upon that will be taken by no Government, but by that jury. I have no doubt that those to whom these words are addressed will ask their own consciences what the result of such a trial will be; but I tell them this—let them ask for no mercy if the verdict of a jury of their countrymen is against them."

The Magistrate accordingly allowed the charges to be withdrawn and discharged the defendants. Next day work was resumed everywhere.

IX. Conclusion.

Nearly 200,000 men were involved in this disastrous strike, and 1,500,000 working days were lost in the course of it.\(^1\) The numbers of men affected and days lost exceeded the totals for the engineering and shipbuilding trades from the outbreak of war to the eve of the strike.

The Government decided to appoint eight commissions to inquire throughout the country into the causes of industrial unrest and to recommend remedies. In the meanwhile, Dr. Addison carried on negotiations with the trade unions, sparing no effort to conciliate them short of abandoning dilution on commercial work. To this end he announced on 4 June,\(^2\) at a conference with the Executive Council of the A.S.E., that he was prepared to sacrifice Section 7 of the Munitions of War Act and the leaving certificate. The executive considered that this concession would be most helpful, but insisted that the extension of dilution was impracticable without the full consent of their members.

"There is no doubt whatever," Mr. Brownlie said,\(^3\) "as to the views of our members in regard to this matter. We should be rendering a disservice to your Department and to the Nation were we to lead you to believe that your Bill could be effectively applied, even if you should attempt to rush it through the House with a Government majority, and we would be untrue to ourselves, knowing full well that your proposal is doomed to failure, and would cause a considerable amount of unrest and dislocation of industry if we let you proceed without consulting our members."

He believed, however, that if the position was put before his society the principle would be accepted, as the Treasury Agreement

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\(^1\) Ministry of Labour Gazette, July, 1917; January, 1918.
\(^2\) Minutes of Proceedings, p. 2 (M.W.L.R. 139/22).
\(^3\) Ibid., p. 16.
had been carried two years before. The other members of the council were also sanguine that a ballot would have the result desired.

Accordingly, a full account\(^1\) was prepared of the Bill, as the Minister proposed to amend it; every clause, except that which extended dilution, representing a concession to the interests or sentiments of the trade unions. This was circulated to the A.S.E. together with the report of a speech by Dr. Addison, explaining the urgency of the measure. After the matter had been fully discussed in the districts, a ballot was taken; but the result, announced in the middle of July was:

\[
\begin{array}{ll}
\text{Against dilution on commercial work} & 46,851 \\
\text{For dilution on commercial work} & 8,945 \\
\hline
\text{Majority against} & 37,906
\end{array}
\]

On 18 July it was announced that Dr. Addison had resigned the office of Minister of Munitions, and Mr. Churchill, who succeeded him, stated,\(^2\) on moving the recommittal of the Bill on 14 August, that he proposed to withdraw the dilution clause. Thus the A.S.E. secured the repeal of the most unpopular section of the Munitions of War Act without surrendering anything in return.

The dénouement was hardly more satisfactory from the recruiting point of view. So far was the Ministry of Munitions from providing its quota of 124,000 men by the end of July, that its contribution was still 50,000 short of this figure when the revised schedule came into force six months later.\(^3\) The agreement with the A.S.E. on 5 May made it impossible to release more.

\(^1\) Circular M.M. 142.
\(^2\) Parliamentary Debates (1917), H. of C., XCVII., 1119.
\(^3\) On 31 January, 1918, the number of men holding scheduled occupation certificates (Army Form 3476A) was 778,701; the number of men holding protection certificates (Army Form 3476B) was 438,640; in all 1,217,341. The number of men released for service with the colours under the scheme between 7 May, 1917, and 25 January, 1918, was 70,460. The number of men listed for medical examination during the same period was 242,705. (Printed) Weekly Reports, Nos. 128, 129, X (2 and 9. 2.18).
APPENDICES
APPENDIX I.
(Chapter II, p. 41.)

List of Societies included in the Trade Card Scheme.

The following societies were summoned to a conference on the extension of dilution to private engineering work on 22 November, 1916. Those included in the Trade Card Scheme appear in column A, those excluded from that scheme in Column B.

A

Boilermakers and Iron and Steel Shipbuilders.
Associated Blacksmiths and Ironworkers.
Steam Engine Makers.
United Pattern Makers.
United Journeymen Brassfounders' and Coppersmiths' Association.
Ship constructors' and Shipwrights' Association.
Liverpool Shipwrights' Trades Friendly Society.
United Machine Workers.
National Amalgamated Sheet Metal Workers and Braziers.
Associated Ironmoulders of Scotland.
Amalgamated Society of Engineers.
U.K. Society of Amalgamated Smiths and Strikers.
General Union of Braziers and Sheet Metal Workers.
Amalgamated Society of Railway Vehicle Builders.
Electrical Trades Union.
National Society of Amalgamated Brass Workers and Metal Mechanics.
West of Scotland Brass Turners.
Amalgamated Toolmakers.
Sheet Iron Workers' and Light Platers' Society.
Scottish Brass Moulders.
British Steel Smelters.
Scientific Instrument Makers.
Friendly Society of Ironfounders.
National Society of Coppersmiths, Braziers and Metal Workers.
Tin Plate, Sheet Metal Workers and Braziers.

B

General Union of Carpenters and Joiners.
Operative Plumbers.
Amalgamated Cabinet Makers.
Northern United Enginemen's Association.
National Furnishing Trades.
London and Provincial Coachmakers.
National Union of Coachmakers.
Operative House and Ship Painters.
Woodcutting Machinists.
Amalgamated Carpenters and Joiners.
Iron, Steel and Metal Dressers.
National Union of Operative Heating and Domestic Engineers.
London United French Polishers.
APPENDIX II.

(Chapter III, p. 51.)

Dilution on Private and Commercial Work.

Agreement between the Minister of Munitions, the Labour Adviser to H.M. Government, and

The Executive Council of the having considered the recommendation of the Man-Power Distribution Board that the practice of dilution shall be extended to firms engaged wholly or partially on private and commercial work, accepts the principle that dilution shall be extended to private and commercial work, and agrees to co-operate in securing its application, provided—

(1) That the employers on their side agree to be bound by:—

(a) Terms at least as favourable to the workpeople as the Treasury Agreement of 19 March (equivalent to the Second Schedule to the Munitions of War Act);

(b) The terms of any Orders, including L.2 and L.3, or any amendments thereto, made by the Minister of Munitions, as to the remuneration or employment of women or girls on work customarily done by men, or of semi-skilled or unskilled men on work customarily done by skilled men.

(2) That in order to ensure that the skill and energy of every man be used in the best and fullest manner, a guarantee be given that skilled men set free from private and commercial work as a result of dilution shall not be taken for general military service so long as they are required either for munitions work or for technical units of the Army, in which their special skill will be best utilised.

(3) That men of military age, who are fit for general military service, are not introduced in place of men displaced under this scheme.

(4) That in the absence of legislation the Man-Power Distribution Board make arrangements that the terms of all agreements entered into in accordance with the above scheme shall be duly registered with a Government Department, with a view to the restitution of trade union conditions after the war, in accordance with the terms of the Munitions Act.

(5) That in order to carry out a general scheme of dilution throughout industry, a system of local committees, on which labour is adequately represented, should be instituted.

It was agreed that this condition will be met by the institution of central and local machinery in accordance with the proposals submitted to the conference on November 22 and 23, as accepted by the conference, i.e.,

(a) Dilution on private work shall be carried out by the same methods and with the same machinery as at present in existence for munitions work.

(b) Central and local machinery shall be established under the authority of the Minister of Munitions for dealing with allegations of victimization by employers either in substitution or in debadging, and with allegations of improper enlistment. The local machinery will consist of the Chief Dilution Officer for each Employment Exchange area, assisted by a Committee, consisting of representatives of the War Office, the Admiralty, and the Board of Trade, and an equal number, i.e., not less than three representatives of Labour, nominated by the Labour Adviser. It will be the duty of the Labour representatives to receive, investigate either personally or through reliable agents, and to bring before the
Committee all cases of victimization or improper enlistment or debadging or substitution of men which may be brought to their knowledge. The Dilution Officer will be the executive officer for carrying out the decisions of the Committee, and, in the case of a difference of opinion in the Committee as to the action to be taken, the matter will be referred to the Central machinery. The Central machinery will consist of a Section in the Labour Supply Department of the Ministry of Munitions to be established for the purpose—the personnel of which will be settled in consultation with the Labour Adviser, and will include representatives of Labour and will be associated with the Recruiting Department of the War Office.

(6) That if a man is released from the Army for civil work, he shall be employed as a civilian and not under military discipline. A man so released shall enrol as an Army Reserve Munition Worker.

For the Minister of Munitions ..........................  
For the Labour Adviser to H.M. Government ..................  
For the Society { ........................................... Chairman.  
For the Society ........................................... Secretary.
APPENDIX III.

(CHAPTER III, p. 58.)

List of the Trade Unions which signed the Dilution Agreement.

United Society of Boiler Makers and Iron and Steel Ship Builders.
Associated Blacksmiths' and Ironworkers' Society.
United Pattern Makers' Association.
General Union of Operative Carpenters and Joiners.
United Journeymen Brassfounders', Turners', Fitters', Finishers', and Copper-smiths' Association of Great Britain and Ireland.
Ship Constructors' and Shipwrights' Association.
Liverpool Shipwrights' Trade and Friendly Association.
Amalgamated Union of Cabinet Makers.
United Machine Workers' Association.
Northern United Enginemen's Association.
National Amalgamated Sheet Metalworkers and Braziers.
Associated Ironmoulders of Scotland.
London and Provincial Coach Makers' Trade Union.
United Kingdom Society of Coachmakers.
General Union of Braziers and Sheet Metalworkers.
Amalgamated Society of Railway Vehicle Builders, Wheelwrights, Carpenters and Mechanics.
National Amalgamated Society of Operative House and Ship Painters and Decorators.
National Society of Amalgamated Brass Workers and Metal Mechanics.
Amalgamated Society of Wood Cutting Machinists of Great Britain and Ireland.
West of Scotland Brass Turners', Fitters', Finishers' and Instrument Makers' Society.
Scottish Brass Moulders' Union.
British Steel Smelters, Mill, Iron, Tinplate and Kindred Trades Association.
Iron, Steel and Metal Dressers' Trade Society.
Friendly Society of Ironfounders of England, Ireland and Wales.
National Society of Coppersmiths, Braziers, and Metal Workers.
Birmingham Operative Tin Plate, Sheet Metal Workers' and Braziers' Society.
London United Brass and General Metal Founders' Society.
Amalgamated Union of Upholsterers.
APPENDIX IV.

(C Chapter III, p. 60.)

The Munitions of War Bill as amended in Committee,
8 May, 1917.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

*Power to extend Munitions of War Acts to work other than munitions work.*

1. Where the Minister of Munitions is satisfied that it is of national importance that the provisions of the Munitions of War Acts, 1915 and 1916, as amended by this Act, should be extended to work of any particular class or classes, or to all or any work in any particular establishment or class of establishment, he may issue a certificate to that effect and may by order direct that those provisions shall be extended accordingly; and thereupon those Acts shall have effect as though references to munitions work included references to the work specified in the order.

*Amendment of Schedule II of 5 and 6 Geo. 5 c. 54.*

2. Paragraph three of the Second Schedule to the Munitions of War Act, 1915 (which relates to priority of employment after the war), shall have effect as though the following words were added at the end thereof "or who have been assigned to some other establishment by the Minister of Munitions in pursuance of section six of this Act": Provided that workmen who have been serving with the colours shall have preference over the other classes mentioned in the paragraph as amended.

*Power to make certain awards as to wages binding on trades.*

3. (1) Where an award as to a change in the rate of wages payable to persons engaged on or in connection with munitions work, or as to hours of work or otherwise as to terms or conditions of, or affecting employment of, persons so engaged, has been made either under Part I. of the Munitions of War Act, 1915, or in pursuance of an agreement between representatives of employers and workmen, and the Minister of Munitions is satisfied that the award affects the majority of the employers and the persons engaged on or in connection with munitions work in any trade or branch of a trade either generally or in a particular district, the Minister of Munitions may by order direct that the award shall be binding on all or any other employers and persons so engaged, either without modifications or subject in any particular cases to such modifications contained in the direction as the Minister may consider necessary to adapt the award to the circumstances of such cases, and in particular in order that no such other employer shall be compelled to pay greater or enabled to pay less wages than are payable in the like circumstances by an employer who was originally bound by the award.

(2) Where any such directions are given the award shall be binding not only on the employers and persons so engaged who are affected by the award as originally made, but also, subject to such modifications (if any) as aforesaid, on the other employers and persons so engaged to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable in like manner as if the award and the order in which such directions are contained were an award made in settlement of a difference under Part I. of the Munitions of War Act, 1915, and had been made in respect of a dispute affecting such employers and persons so engaged,
Reporting of differences.

4. The Minister of Labour may make regulations with respect to the reporting of differences under section one of the Munitions of War Act, 1915, and with a view to preventing undue delay in negotiations for settling such differences may by those regulations prescribe the time within which any such difference is to be reported to him.

Amendments of s. 7 of the principal Act.

5. (1) Where a workman to whom it is not lawful by virtue of section seven of the Munitions of War Act, 1915, as amended by section five of the Munitions of War (Amendment) Act, 1916, to give employment by reason of his not holding such a certificate as is mentioned in that section, has remained unemployed for such period as is mentioned in that section, the employer by whom he was last employed on, or in connection with, munitions work shall, on application being made to him by the workman, issue to him a certificate that he is free to accept other employment, and if the employer fails to do so the munitions tribunal may, in addition to issuing or ordering the issue to him of such certificate, order the payment to him by that employer of such sum, not exceeding five pounds, as the tribunal may think fit.

(2) In subsection (2) of the said section, as so amended, for the words "that an employer has unreasonably refused or neglected to issue such a certificate as aforesaid, that tribunal may, after examining into the case, if it thinks fit," there shall be substituted the words "that an employer has refused or neglected to issue such a certificate as aforesaid, that tribunal, after examining into the case, unless satisfied by the employer that his refusal or neglect was not unreasonable, shall."

Application of s. 17 of principal Act.

6. Section seventeen of the principal Act shall apply to any order or regulation made under this Act.

Restriction on change of piece rates in controlled establishments.

7. The following paragraph shall be inserted in the Second Schedule to the Munitions of War Act, 1915, after paragraph (5):

(5A) Piece prices, time allowances, or bonuses on output, once fixed in the establishment, may not be altered except by express agreement, unless a substantial change in the method of operation or in the machinery, material or tools is introduced, and where such a change is introduced the altered piece prices, time allowances, or bonuses on output shall not be such as to be less favourable to the workmen from time to time employed in the establishment.

Amendment of s. 22 of the Act of 1916.

8. For subsection (1) of section twenty-two of the Munitions of War (Amendment) Act, 1916, the following subsection shall be substituted:

Where a munitions tribunal dismisses any case under the principal Act or this Act, the tribunal shall, unless it sees good cause to the contrary, award costs to the person against whom the complaint is made, and the costs so awarded shall, unless good cause to the contrary appears, include such sum as compensation for the expenses, trouble, and loss of time incurred in or incidental to the attendance of the person against whom the complaint is made before the tribunal and of any necessary witnesses as to the tribunal may seem just and reasonable.

Short title.

9. This Act may be cited as the Munitions of War Act, 1917; and the Munitions of War Acts, 1915 and 1916 and this Act may be cited together as the Munitions of War Acts, 1915 to 1917,
APPENDIX V.

(CHAPTER IV, p. 67).

Statistics of Army Reserve Munition Workers.

<table>
<thead>
<tr>
<th>Month</th>
<th>Unskilled</th>
<th>Skilled</th>
<th>Total</th>
<th>Transferred under Substitution Scheme</th>
<th>Net reinforcement of labour employed on munitions work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>November, 1916</td>
<td>520</td>
<td>1</td>
<td>521</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>649</td>
<td>28</td>
<td>677</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>2,960</td>
<td>210</td>
<td>3,170</td>
<td>1,980</td>
<td>1,403</td>
</tr>
<tr>
<td>February</td>
<td>7,575</td>
<td>429</td>
<td>8,004</td>
<td>5,555</td>
<td>2,064</td>
</tr>
<tr>
<td>March</td>
<td>7,665</td>
<td>725</td>
<td>8,390</td>
<td>6,716</td>
<td>1,624</td>
</tr>
<tr>
<td>April</td>
<td>3,448</td>
<td>503</td>
<td>3,951</td>
<td>1,863</td>
<td>1,279</td>
</tr>
<tr>
<td>May</td>
<td>3,538</td>
<td>577</td>
<td>4,115</td>
<td>2,634</td>
<td>1,080</td>
</tr>
<tr>
<td>June</td>
<td>2,656</td>
<td>490</td>
<td>3,146</td>
<td>1,968</td>
<td>696</td>
</tr>
<tr>
<td>July</td>
<td>2,090</td>
<td>783</td>
<td>2,873</td>
<td>1,807</td>
<td>642</td>
</tr>
<tr>
<td>Total</td>
<td>31,101</td>
<td>3,746</td>
<td>34,847</td>
<td>22,643</td>
<td>8,788</td>
</tr>
</tbody>
</table>

1 i.e., after making allowance for the return to the Army of 3,146 soldiers who had been released under the Release from the Colours Scheme and 270 Army Reserve Munition Workers.
APPENDIX VI.
(CHapter IV, p. 70).

War Service Badges and Certificates—Notice of Withdrawal.

Notice to Voluntarily Attested Men.

Whereas by an agreement made between the Army Council and the Minister of Munitions an undertaking dated 16 November, 1915, was given that men officially badged or starred for munitions work who voluntarily attested should not be called up for service in the Army unless and until the Minister of Munitions decided that such men were more urgently needed in the Army than for munitions work. And whereas the Minister of Munitions has now decided that such men are more urgently needed in the Army than for munitions work.

Now the Minister hereby directs that from the date hereof such men and all other voluntarily attested men falling within the description specified in the Schedule hereto shall be liable to be called up for service in the Army and shall cease to be entitled to wear or retain War Service Badges and that all War Service Badges and certificates held by them must be forthwith surrendered to their employers or if unemployed to the Minister of Munitions.

Schedule.

All holders of War Service Badges and certificates issued by the Admiralty, the Army Council or the Minister of Munitions who were on the first day of December, 1916, described in the Register kept by their Employers (Form M.M. 37B, Section 11 of the Munitions of War Act, 1915, or the Form D.R. 17, Regulation 41a of the Defence of the Realm Regulations) as Unskilled or Semi-skilled.

Notice to Unattested Men.

Directions given by the Minister of Munitions under the powers given to him by the Military Service Acts, 1916, and the Munitions of War Act, 1915, and Munitions (War Service Badges) Rules, 1915.

On the application of a person duly authorised by the Army Council in that behalf the Minister of Munitions in pursuance of powers conferred upon him by the Military Service Acts, 1916, and the Munitions of War Act, 1915, and Munitions (War Service Badges) Rules, 1915, hereby directs that the direction of July 1, 1916, with regard to certificates of exemption under the said Acts shall be varied to the extent that as from the date hereof it shall no longer apply to certificates held by the men falling within the description specified in the Schedule hereto and the Minister of Munitions in pursuance of the powers aforesaid and of the powers transferred to him by the Lords Commissioners of the Admiralty and by the Army Council hereby withdraws all certificates of exemption of the nature mentioned in the said direction which are held by men falling within the said description and further directs that after the date hereof such men shall cease to be entitled to wear or retain War Service Badges and that all War Service Badges and certificates held by them shall be forthwith surrendered to their Employers or if unemployed to the Minister of Munitions.

Schedule.

All holders of War Service Badges and certificates issued by the Admiralty, the Army Council or the Minister of Munitions who were on the first day of December, 1916, described in the Register kept by their Employers (Form M.M. 37B, Section 11 of the Munitions of War Act, 1915, or the Form D.R. 17, Regulation 41a of the Defence of the Realm Regulations) as Unskilled or Semi-skilled, save and except those to whom the Military Service Acts, 1916, do not apply.
Note.

1. Men falling within the above-mentioned description may be called to the Colours by the competent military authority after consultation and by agreement with the Government Departments concerned.

2. Where an individual certificate of exemption has been granted to a man by a Local Tribunal in pursuance of any certificate hereby withdrawn such individual certificate is to be deemed to have been withdrawn in pursuance of Regulation I (e) of Part III. of the Schedule to the Military Service Regulations (Amendments) Order, 1916, or Paragraph 1 (e) of Part III. of the Instructions to Tribunals as to voluntarily attested men, as the case may be.

3. By the Defence of the Realm (Consolidation) Regulations, 1914, it is inter alia provided that if any person retains any official certificate when he has no right to retain it, or fails to comply with any directions issued by lawful authority with regard to the return thereof, he shall be guilty of an offence against the said Regulations. A person convicted of an offence against these Regulations by a Court of Summary Jurisdiction is liable to imprisonment with or without hard labour for a term of six months or to a fine of One hundred pounds, or to both such imprisonment and fine.

Derby.

CHRISTOPHER ADDISON.

18 December, 1916.
Contents of Volume VI.


Part II. The Home Front, 1917-18. \[ Provisional. \]

Part III. Men or Munitions, 1918.


Note.—The contents of this issue are subject to revision and must be regarded as provisional.
HISTORY OF THE MINISTRY OF MUNITIONS

VOLUME VI

MAN POWER AND DILUTION

PART II

THE CONTROL OF INDUSTRIAL MAN POWER 1917–18

(Replacing Parts II and III as originally planned)
Note.—Parts II and III of this Volume have, by force of circumstances, been condensed into a single part. The treatment is slighter than that of the earlier parts dealing with Labour. It is restricted to a purely chronological narrative without any attempt at analysis. A list of certain more important documents has, however, been appended, which will give some indication of the sources from which further particulars may be drawn.
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CHAPTER I.

THE MUNITIONS OF WAR ACT, 1917.


The introduction of the Munitions of War Bill, 1917, as a measure primarily intended to secure the extension of dilution to private and commercial work, and the circumstances connected with the strike of engineers in April and May, 1917, have been related in the preceding part of this volume.¹

As is there recorded, the Bill was considered in Committee on 7 May. In the form in which it emerged, it included, besides the provision for extending dilution, clauses relating to priority of employment after the war; to the compulsory extension to minorities in trades of the awards as to wages, hours of work, etc., binding upon employers employing the majority of persons in the trade; to the speeding up of arbitration procedure; to the prevention of rate cutting; and to compensation of workmen summoned before munitions tribunals on unproved charges. It also contained amendments to Section 7 of the Act of 1915, the section which made leaving certificates compulsory.² Three only of these clauses, those concerned with the extension of awards, the expediting of arbitration and the prevention of rate cutting, were embodied in the Bill which was reintroduced in August, a few days before the House rose, and which became law on 21 August. The dilution provisions had been dropped altogether, and power was given to the Minister to abolish leaving certificates, the remainder of the Bill being concerned with the safeguards necessitated by the repeal of Section 7 and with the remediating of certain outstanding grievances.

The interval of three months between the Bill's being considered in Committee in May and its recommittal in August were occupied by continuous negotiations with the trade unions, during which the Government conceded point after point in the hope of securing agreement to dilution on private work, until they were finally obliged to abandon the dilution provisions also.

Lengthy negotiations were conducted with two bodies representing the workers. One was the committee of which Mr. John Hill was convener, which had been elected at a conference held on 10 May and attended by representatives of 50 unions, excluding the Amalgamated Society of Engineers;³ the other was the Executive Council of the A.S.E.⁴ At the frequent meetings which were held the fears and grievances of the workers were explained and various amendments to the Bill were proposed.

¹ Vol. VI, Part I.
² Ibid., pp. 60-63.
³ Vol. VI, Part I, p. 112.
⁴ Ibid., p. 117.
It was clear that the principal grievance, apart from the central question of the extension of dilution, was the restriction which the leaving certificate system imposed on the workers' freedom of movement. The Munitions of War Bill as it emerged from Committee in May amended Section 7\(^1\) of the principal Act by providing that an employer should, after an application from a workman who had left his employment without a leaving certificate, at the expiry of six weeks issue a certificate that he was free to take other employment; or if an employer refused a leaving certificate, a munitions tribunal should itself issue a certificate or order the employer to do so, unless the employer could prove that the withholding of a certificate was not unreasonable. During the subsequent negotiations, various other amendments were proposed,' but these satisfied neither workmen nor employers. Representatives of the latter were frequently called into consultation by the Department and at a conference on 1 June, when an amendment was under discussion which would have enabled a man to leave on giving three weeks' notice, subject to the employer's right, on application to a tribunal, to have the period extended to six weeks, Mr. Allan Smith summed up the employers' view:—

"If you are going to tinker at Clause 7 like that, I think it is a question of whether you should not abolish it altogether."\(^2\)

This course was already under consideration. Since the leaving certificate grievance was the one most loudly proclaimed, the abolition of Section 7 would presumably reduce unrest. On the other hand, as both the employers and the Supply Departments were not slow to point out, the restoration of freedom to move might well lead to migration on such a scale as seriously to endanger output. It was finally decided to take this risk and to hold out the repeal of Section 7 as an inducement to the workmen to agree to dilution on private and commercial work.\(^3\)

On 4 June, accordingly, at a conference with the Executive Council of the A.S.E., Dr. Addison stated that he was prepared to sacrifice Section 7, subject to certain safeguards to prevent men going from munitions to private work and to prevent employers from enticing men by the offer of higher wages. The Executive Council, while

\(^1\) 7.—(1) A person shall not give employment to a workman, who has within the last previous six weeks, or such other period as may be provided by Order of the Minister of Munitions as respects any class of establishment, been employed on or in connection with munitions work in any establishment of a class to which the provisions of this section are applied by Order of the Minister of Munitions, unless he holds a certificate from the employer by whom he was last so employed that he left work with the consent of his employer or a certificate from the munitions tribunal that the consent has been unreasonably withheld.

(2) If any workman or his trade union representative complains to a munitions tribunal in accordance with rules made with respect to those tribunals that the consent of an employer has been unreasonably withheld that tribunal may, after examining into the case, if they think fit, grant a certificate which shall, for the purposes of this section, have the same effect as a certificate from the employer.

(3) If any person gives employment in contravention of the provisions of this section, he shall be guilty of an offence under this Act. (Munitions of War Act, 1915, 5 & 6 Geo. 5, ch. 54).

\(^2\) M.W.L.R./139/21.

\(^3\) M.W.L.R./139/20, 21, 30, 184, 192.
agreeing that this concession would ease the general labour question, insisted that even so dilution on private work could not be enforced without the prior consent of their members. They proposed that the Minister should explain the position to a conference of district delegates, and after they had had time to report to their members and the Executive Council had also addressed local meetings, the men should be asked to ballot on the question of releasing the Government from their pledges that dilution should be confined to war work. If this plan of action was followed the Council were confident of a satisfactory result.¹

The hopes thus raised were somewhat dashed by the conference with district delegates, held on 13 June. Dr. Addison in his opening speech explained the reasons which made the extension of dilution necessary and described the concessions which were being made to the workers' interests, laying particular stress on the proposed abolition of leaving certificates. The attitude of the delegates was, however, definitely hostile. One delegate expressed the opinion that "the executive officers do not know the minds of the men or the masters." The Bill should be held up until the minds of the men affected had been gauged. This, as Dr. Addison explained, was the Government's intention.²

At the end of June a circular issued by the Executive Council asked the members of the A.S.E. to vote on the question of dilution on private and commercial work and summarised the advantages which the unions had gained from their negotiations with the Government. The Council had not secured all that they had asked for, but they believed the concessions granted were of real value.

"Taking the concessions as a whole, we feel that with them our society will be in a far better position to face not only the crisis which may await us during the war, but even more the difficult situation which will necessarily arise at the conclusion of the war. On these grounds, we appeal to our members in giving their votes . . . to consider seriously the expediency of releasing the Government from its pledge, twice given, not to introduce dilution into private work."³

During the next few weeks the Executive Council of the A.S.E. carried out their programme of addressing meetings in various districts. Meetings were also addressed by the Minister and his officers. At a stormy meeting of Woolwich engineers on 13 July, Dr. Addison, after being bombarded with questions on all sorts of irrelevant matters, was asked what he would do if the ballot went against the Bill.

His reply was significant:—

"Well, I shall just see what the nature of the ballot is. If there is a majority for, it answers itself. If there were a majority against, I should see how big the majority was, and I should attach a great deal of importance to that. . . . If I felt that the

opposition was to be so great that I might not get more munitions if I went on with the Bill than if I did not, I should not go on with it."1

Shortly after this meeting the results of the A.S.E. ballot were declared. The total number of votes recorded was 55,796: 46,851 were against the extension of dilution, 8,945 in favour of it. The majority against was therefore 37,906. Mr. Brownlie subsequently stated that this was "without doubt the largest vote ever recorded by the organisation throughout its entire history with the exception of the votes taken during the great lock-out of 1897 and 1898."2

The position therefore was that while the result of the ballot was precisely of the nature which the Minister had admitted would cause him seriously to consider the abandonment of the dilution clause, the abolition of leaving certificates, offered as an inducement to the unions to accept that clause, was considered an established fact. Dr. Addison's speech to the district delegates on 13 June, with its announcement of the proposed action, had been issued in pamphlet form3 and the circular issued by the Executive Council of the A.S.E. to their members had declared that leaving certificates were "definitely abolished." Moreover, the reports of the Commission on Industrial Unrest, which were completed on 12 July, laid stress on the discontent caused by the leaving certificate, and their recommendations assumed that it was to be abolished.

II.—The Commission on Industrial Unrest.

On 12 June, 1917, the Prime Minister had appointed 24 Commissioners "to enquire into and report upon industrial unrest and to make recommendations to the Government at the earliest practicable date." For the purpose of the enquiry the country was divided into eight divisions, three commissioners, one representative of the employers, one of labour and an independent Chairman, being appointed for each division.

The Commissioners acted under the general instructions of Mr. G. N. Barnes, then acting as the Labour Member of the War Cabinet in Mr. Henderson's absence in Russia. All the divisional reports had been completed by 12 July and on 17 July a summary4 of their findings and recommendations was submitted to the Prime Minister by Mr. Barnes. The reports were published at the beginning of August.

All the Commissioners put in the forefront, as the leading cause of unrest, the disproportionate increase in the cost of living compared with wage advances, and the unequal distribution of food supplies. Resentment against profiteering was also mentioned in some reports. There was also universal discontent arising from the operation of the

1 Memorandum by Intelligence and Record Section, 1 October, 1917 (Mr. Churchill's Papers, Box 31/20).
2 Conference, 1 August, 1917 (M.W.L.S./28670).
3 M.M. 145.
4 Copy in Hist. Rec./R/300/44.
Munitions of War and Military Service Acts. With regard to the former, the chief grievances were the failure of employers to consult workpeople before introducing changes in working conditions and the restrictions imposed by leaving certificates, by which workmen were tied to particular factories and were unable to obtain wages in relation to their skill. Stress was also laid on the disparity between the skilled and unskilled man's wage. The reports showed that the irritation caused by the withdrawal of the trade card scheme\(^1\) had largely subsided, but that considerable anxiety was still felt as to the working of the Schedule of Protected Occupations. Another matter to which general reference was made was the want of co-ordination between Government Departments dealing with Labour.

Among causes of unrest acute in certain areas though not universal the reports mentioned the lack of housing accommodation in congested districts.\(^2\) In certain areas such as the West Midland division, the shortage of beer was given as a primary cause of unrest, and in some areas stress was laid on the consequences of industrial fatigue. Other points mentioned in the reports were delays in the settlement of disputes, the low wages of women, delays in granting pensions to soldiers, the alteration of the limit of income tax exemption, the inadequacy of the maximum of £1 weekly allowed under the Workmen's Compensation Act, lack of proper trade union organisation for the settlement of grievances, lack of communal sense.

The majority of the causes of unrest, it was pointed out, had their roots in psychological conditions and a good deal of discontent was merely a manifestation of lack of confidence in the Government. This showed itself in the feeling that there had been inequality of sacrifice, that the Government had broken solemn pledges, that trade union officials were no longer to be relied upon, and that the industrial future was uncertain. The reports gave frequent instances of complaints that pledges were no longer observed as they had been before the war.

While the Commissioners were conducting their enquiries the first report was published of the Sub-Committee of the Reconstruction Committee set up under the chairmanship of Mr. J. N. Whitley, to consider and make suggestions concerning the improvement of relations between employers and employed. In this interim report, which was dated 8 March, 1917, but was not published until the middle of June, the Committee had recommended the formation of Joint Standing Industrial Councils, composed of representatives of employers and employed, in industries where they were not already in existence. They further suggested that District Councils, representative of trade unions and employers' associations in the industry, should be created or developed out of the existing machinery for negotiation in the various trades and that Works Committees representing the management and the workers should be instituted in particular works to act in close

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\(^1\) See Vol. VI, Part I, Chap. II.

\(^2\) The Commissioners of the North-West Area submitted a supplementary report on the Barrow-in-Furness district, in which the strongest emphasis was laid on housing conditions. For details see Vol. V, Part V.
co-operation with the district and national machinery. A triple organisation was thus proposed, in the workshops, in the districts and nationally. The evidence given before the Commissioners on Industrial Unrest indicated that these proposals met, broadly speaking, with general approval.

The recommendations of the Commissioners, as summarised by Mr. Barnes, were as follows:

"(1) Food Prices:—There should be an immediate reduction in price, the increased price of food being borne to some extent by the Government, and a better system of distribution is required.

(2) Industrial Councils, etc.:—The principle of the Whitley Report should be adopted; each trade should have constitution.

(3) Changes with a view to further increase of output should be made the subject of an authoritative statement by the Government.

(4) Labour should take part in the affairs of the community as partners rather than as servants.

(5) The greatest publicity possible should be given to the abolition of leaving certificates.

(6) The Government should make a statement as to the variation of pledges already given.

(7) The £1 maximum under the Workmen’s Compensation Act should be raised.

(8) Announcements should be made of policy as regards housing.

(9) A system should be inaugurated whereby skilled supervisors and others on day rates should receive a bonus.

(10) Closer contact should be set up between employer and employed.

(11) Pensions Committees should have a larger discretion in their treatment of men discharged from the Army.

(12) Agricultural wages in the Western Area, now as low as 14s. to 17s. a week, should be raised to 25s. a week.

(13) Coloured labour should not be employed in the ports.

(14) A higher taxation of wealth is urged by one Commissioner."

Many of the grievances mentioned by the Commissioners were of course not the direct concern of the Ministry of Munitions. Of the remainder the more important had, before the completion of the reports, been brought forcibly to the notice of the Ministry in the negotiations concerning the Munitions of War Bill. The Minister had already assured the unions of his willingness to establish local committees, and amendments to the Bill had been drafted which would make statutory the consultation of workmen before the introduction of changes and provide for improvement in wage conditions and the speeding up of arbitration. The abolition of leaving certificates, as has been seen, had practically been promised.
III.—The Position in August.

On 18 July, immediately after the A.S.E. ballot had been declared, it was announced that Dr. Addison had accepted the office of Minister of Reconstruction. The problem of the Dilution Bill was left to his successor, Mr. Churchill.

On 1 August the new Minister presided at a conference held in the Central Hall, Westminster, and attended by representatives of all the unions concerned, including the A.S.E. Mr. Churchill in his opening speech declared that he came to the problem with an open mind, that he did not want to commit himself to any definite line, but was anxious to hear the workers' point of view. The discussion which followed revealed the strongest possible opposition to the extension of dilution, and an equally strong desire that the other clauses of the Bill, and particularly that providing for the abolition of leaving certificates, should be passed at once. The Minister promised that he would do all he could to meet the views expressed, and asked the delegates to meet him again in a few days' time.¹

This further meeting took place on 13 August. In the interval the possible courses open to the Department with regard to the Bill were fully considered. In particular, a means was sought by which the abandonment of both the dilution and the leaving certificate provisions might be avoided. Various suggestions were made for amendments by which the retention of Section 7 might be made acceptable to Labour; for instance that certificates should be granted as a right to men who had worked away from home for, say, twelve months. Another possibility explored was the partial suspension, instead of the abolition, of leaving certificates. It was also suggested that their withdrawal might be made contingent on the enrolment of a certain additional number of War Munitions Volunteers, since the addition thus secured to the mobile force of labour under the control of the Ministry would compensate to some extent for the migration apprehended on the repeal of Section 7. An extension of the War Munitions Volunteer scheme was also under consideration from the point of view of meeting the grievance of men who were working away from home on their own account, and who, not having been allocated by the Ministry, were not entitled to the subsistence allowance. The necessary steps could, however, be taken by administrative action, and it was not thought desirable to include any provision regarding War Munitions Volunteers in the Bill. It was recognised that the publicity given to the proposed abolition of leaving certificates would mean that any change of policy in this respect must be the subject of long and delicate negotiation. Parliament, however, was expected to rise in a few days' time, and the postponement of the Bill to the following session was therefore contemplated. This would give time for a bargain to be struck with Labour. If during the recess, pressure for the repeal of leaving certificates should become irresistible, it would be possible to withdraw them without fresh legislation.²

¹ M.W.L.S./28670. ² M.W.L.R./139/184, 193, 209, 198.
At the adjourned conference with the trade unions on 13 August, Mr. Churchill explained that while recognising the strength of the opposition to dilution on private work and the impossibility of forcing it upon industry without consent, the Government still attached the greatest importance to securing greater facilities for dilution. After considerable discussion, Mr. Churchill and the officers of the Ministry present retired. A suggestion had been made that the unions should elect a standing committee to advise the Minister, but the representatives of the A.S.E. refused to consider this question without a definite assurance that the dilution clause would be dropped, and withdrew from the meeting. After further discussion the following resolution was passed by a large majority of the remaining representatives:

"This conference in view of the expressed opinion of the members represented, ask the Minister of Munitions to withdraw at the present time any proposed legislation to extend dilution on private and commercial work but strongly urge the fact of the necessity of the passing of the remaining clauses of the Bill at the earliest possible date, believing that any further delay in obtaining legislative power to deal with the innumerable grievances at present existing will lead to fresh labour troubles."

This resolution was at once conveyed to Mr. Churchill.

On the following day (14 August) an additional argument for proceeding at once with the Bill was put forward by the employers' representatives, who pointed out that if the Bill was postponed until the next session, and circumstances should make it necessary to withdraw the leaving certificates during the recess, it would not be possible to arrange for any of the safeguards against the movement of labour which were contemplated in the Bill. They also emphasised the fact that the Government had, to all intents and purposes, promised the abolition of leaving certificates. They agreed to Mr. Churchill's suggestion that since it was proposed to provide in the Bill that dilution on private work could not be enforced without agreement, and since agreement could be secured without legislation, the dilution clause was not of much value, and that in the existing circumstances it might be better to drop the clause and try to come to some understanding with Labour by which dilution would be made more fully operative within the area at present covered.

It was accordingly decided to drop the dilution clause for the time being and to proceed at once with the remaining clauses of the Bill.

**IV. The Terms of the Act.**

The Bill was reintroduced into the House on 14 August and was considered in Committee the following day. It passed through all stages without further alteration and received the Royal Assent on 21 August.

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1 M.W.L.S./28670.  
3 The Act is reproduced in Appendix I.
(a) The Abolition of Leaving Certificates.

The abolition of leaving certificates was not made absolute in the Act. Section 2 provided that the Minister might, by Order, repeal the provisions of Section 7 of the principal Act, on being satisfied that they could consistently with the national interest be repealed. Thereupon, the consent of the Minister would be required to the employment on private work of any workman who had, since the passing of the Act, been employed on munitions work of a class specified in the Munitions of War Act, 1916, or of any other class that might be specified by the Minister of Munitions. The necessity for obtaining the Minister's consent to employment on private work did not apply to women. This was made clear by the subsequent Order which repealed Section 7.

A safeguard against any sudden dislocation when Section 2 was put in force was provided by Section 3, which enacted that on the abolition of leaving certificates a week's notice must be given by either employer or workman of the termination of a contract of service.

The general safeguards provided against undue migration of labour will be considered below.

(b) Provisions Relating to Wages.

In introducing the Bill, Mr. Churchill explained that the actual abolition of leaving certificates was postponed owing to the need for first redressing the grievance of the skilled time worker.

"We have seen," he said, "highly skilled men who have taught the others, working under time rates at comparatively low wages, and who see side by side with them in the same shop, newcomers whose skill, such as it is, has been hastily acquired, and who on repetition work, and on non-repetition work, are earning wages far in excess of those paid to the skilled men. Supposing the leaving certificate were abolished, while this anomaly remained unredressed, I am advised—and I believe I am rightly advised—that it might lead to a serious migration from the higher ranks of labour into the less highly skilled, though more highly paid, forms of labour."

Power to deal with this question was given by Section 1 of the Act, which enacted that the Minister of Munitions might give directions "with respect to the remuneration to be paid for work (being munitions work or work therewith or work in any controlled establishment) which at the time when the directions are given is paid at time rates."

Other wage provisions were contained in Sections 4, 5 and 8.

---

1 An Order, issued on 12 December, 1917 (No. 1324 of 1917), specified as such work the construction, alteration, repair, or maintenance of docks and harbours and work in estuaries where certified by the Admiralty to be necessary for the prosecution of the war; and the supply of light, heat, water, power, and tramway facilities, where necessary for carrying on munitions work, and the erection of buildings, etc., required for such supply.

2 See below, p. 15.

3 See below, p. 13.

4 These provisions are fully discussed in Vol. V, Part I, Chap. II.

5 Parliamentary Debates, H. of C. (1917), XCVII, 1305.
Section 4 also arose out of the intended repeal of Section 7 of the principal Act. Under Section 6 of the 1916 Act the Minister had power to regulate the wages of female workers "employed on or in connection with munitions work in any establishment of a class to which the provisions of Section 7 of the principal Act . . . are for the time being applied."

It was now enacted that the Minister's powers of regulating wages should apply to "female workers employed on or in connection with munitions work in establishments of all classes."

Section 5 provided that awards relating to wages, hours of work, etc., should, where the Minister was satisfied that the award was "binding upon employers employing the majority of the persons engaged on or in connection with munitions work in any trade or branch of a trade either generally or in a particular district," be binding on all or any other employers or persons so engaged.

Section 8 provided that piece rates should not be altered "except in accordance with any procedure which has been adopted by agreement between the owner of the establishment and the workmen or their representatives and is in force in the establishment at the passing of this Act or by the direction of the Minister of Munitions, which direction shall not be given except in accordance with an agreement between the owner of the establishment and the trade unions representing the workmen affected by the alteration, or failing agreement after consultation with the parties concerned."

(c) The Acceleration of Arbitration.

Sections 6 and 7 were concerned with the speeding up of arbitration procedure. Section 6 empowered the Minister of Labour to prescribe the time within which a difference must be reported to him under Section 1 of the principal Act, and Section 7 provided that tribunals should make awards without delay, and where practicable within 14 days from the date of reference. Section 6 provided that a difference might be reported by or on behalf of any Government Department. This would also tend to accelerate the procedure since it often happened that a Government Department became aware of a dispute in progress which was allowed to drag on, instead of being reported promptly to arbitration by one of the parties concerned, and hitherto Departments had had no power to expedite matters by reporting the difference themselves.¹

(d) The Prevention of Victimisation.

Section 9 made it a punishable offence for an employer to discharge a workman on munitions work on the ground that he was a member of a trade union or that he had taken part in a dispute.

This section took the place of a clause which it had been intended to insert making it a punishable offence to discharge a workman "maliciously or without reasonable cause." This had been intended to counterbalance to some extent the employers' power to bring charges against workpeople for bad time-keeping and similar offences,

¹ Hist. Rec./R/221.1/41.
by giving the right to appeal to men who considered that they had been dismissed without good industrial reasons. The employers, however, objected to the clause on the ground that it was too wide and proposed the alternative which was incorporated in the Bill.¹

(c) Transfer of Prosecution Before Tribunals to the Ministry.

Section 10 provided that proceedings against a person for failing to comply with regulations under Section 4 (5) of the principal Act with respect to the general ordering of work in an establishment could only be instituted by the Minister of Munitions or the Admiralty. This meant that proceedings against a man for bad time-keeping could no longer be instituted by an employer. The workmen had always objected to an employer's having power to prosecute and the employers had themselves asked to be relieved of the obligation.²

(f) Deferred Provisions.

In moving the omission of the dilution clause in the Bill, Mr. Churchill explained to the House of Commons that the Bill was merely an instalment. In order to lighten it, in view of the shortage of time before the House rose, it had been decided to concentrate on the points requiring immediate settlement, without prejudice to the consideration of outstanding matters after the recess.³

Thus the Bill did not include a number of amendments which had been put forward by the unions. For instance, it had been intended to insert provisions relating to the compulsory consultation of workmen before the introduction of changes in working conditions; the restoration of the right to strike after the war and the limitation of compulsory arbitration to the war period; and the guarantees that trade union customs would be restored after the war and that men who had served with the colours and War Munitions Volunteers would have priority of employment after the war. All these clauses were omitted from the Act. Another important provision for which the unions had asked and to which the Ministry of Munitions was prepared to agree was that the Munitions of War Acts should be made binding on the Crown. This was deferred owing to objections from the Admiralty and War Office.⁴ Similarly an amendment proposed by the employers by which Government Factories would have been subject to the same restrictions as private employers in the matter of enticing labour was not dealt with because the consent of other Government Departments concerned had not been obtained.⁵

¹ Hist. Rec./R/221.1/41.
² M.W.L.R./139/215. Under the procedure ultimately decided on employers referred complaints to the Chief Investigation Officers, who submitted them for advice to the Enlistment Complaints Committee for the area. If the committee recommended prosecution, the Chief Investigation Officer was authorised to take proceedings on behalf of the Ministry; if it did not, the case was referred to the Ministry for further consideration.
³ Parliamentary Debates, H. of C. (1917), XCVII, 1304.
⁴ M.W.L.R./139/126. The Government decided in November that a clause to this effect should be inserted in the next amending Bill.
⁵ Hist. Rec./R/340/6.
In the autumn the Advisory Committee of Trade Unions which had been set up in August 1 was consulted as to the expediency of introducing a Bill containing the deferred provisions, but it was decided to postpone action until the following session, when there would have been time to ascertain whether any alteration to the 1917 Act was desirable and to prepare a comprehensive measure. 2

A Bill was, however, drafted and was under consideration during the early months of 1918. In the form which it had reached at the beginning of February, its main provisions related to the application of the Munitions of War Acts to Crown Establishments, the enforcement of agreements made in consideration of the relaxation of trade practices; penalties for failure to restore pre-war conditions, the protection of munition workers from ejectment, and the duration of the Acts. In the middle of March it was decided not to proceed with the Bill for some weeks, in view of objections raised by the Ministry of Labour to the introduction of such a measure at a moment when there was serious industrial unrest, owing to the new recruiting procedure, and in spite of considerable pressure from Labour, no further steps were taken for some months.

The provision in the fate of which the trade unions were most interested was that relating to the restoration of trade union conditions after the war, and in this the Ministry of Reconstruction was also intimately concerned. During July, 1918, the proposed Munitions of War Amending Bill was under consideration by an inter-Departmental Committee, but it was finally decided that legislation of the kind originally contemplated, affecting matters arising during the continuance of the war, should not be introduced, but that further consideration should be given to a Bill dealing with the redemption of war pledges, of which the Minister of Reconstruction would take charge. 3

V. The Abolition of Leaving Certificates.

(a) Safeguards against Migration of Labour.

Throughout the negotiations concerning the amendments to the Munitions of War Bill, the fear was constantly expressed, both by employers and by officers of the Department, that the abolition of leaving certificates would involve migration of labour on a large scale. In particular it was apprehended that highly skilled workmen, such as tool-room men, working on time rates, would leave their work and take up less skilled but more highly paid piece work. 4 There was also a danger that workers in unpleasant or dangerous occupations, such as shell filling, would leave in large numbers. 5 It was recognised that a certain amount of movement of workmen was inevitable, but it was hoped that the worst effects could be avoided by action under powers already in existence or conferred by the new Act.

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1 See below, p. 21.
2 M.W.L.R./6038/33.
3 M.W.L.R./7830/17, 19, 25. For the Bill dealing with the redemption of war pledges, see below, p. 90.
4 Hist. Rec./R/300/88; M.W.L.R./139/184.
5 M.W.L.R./139/192.
Thus Section 1 of the Act, which gave the Minister power to order an increase in the skilled time-worker's rate of wages, was intended to obviate the danger of skilled men moving on to less skilled work. Section 3 (1) provided against any sudden dislocation by making a week's notice on either side compulsory, and Section 2 (1) guarded against the movement of labour from essential to unessential work by prohibiting the employment on private work without the Minister's consent of men formerly engaged on munitions work.

It had originally been intended, in order to prevent the poaching of labour, to prohibit the employment of a workman at a higher rate than the employer was paying other men for similar work, unless the man was already receiving a higher rate. It was, however, decided to utilise instead the powers already in existence under the Defence of the Realm Regulations. Regulation 8B, which prohibited the inducement of labour by canvassing, advertisement or otherwise had in practice been found hard to administer owing to the difficulty of providing proof of "inducement," and was not likely to be of much use unless amended. Under Regulation 8A (b), however, the Minister had power "to regulate or restrict the carrying on of any work in any factory workshop or other premises, or the engagement or employment of any workman, or all or any classes of workmen, therein." This power enabled the Minister to put an embargo upon the employment of additional labour by any firm which attempted to upset the labour position by poaching, and on 15 August Mr. Churchill announced in the House of Commons that he should hold himself free to utilise that power. The methods used in applying this power are described in a later chapter.

An additional incentive to men to stay at their work was provided by a new arrangement as to recruiting, by which any man who was unemployed for more than 14 days was liable to be called up, unless he could prove reasonable cause for unemployment. This procedure was made possible by a new regulation, 41 A.A., made under the Defence of the Realm Regulations on 8 August, by which an employer was required to notify the Munitions Area Recruiting Officer, within 48 hours, when a man who held a certificate entitling him to protection from recruiting entered or left his employment.

(b) The Extension of the War Munitions Volunteer Scheme.

During the interval between the passing of the Act in August, 1917, and the actual repeal of Section 7 in the following October, Treasury sanction was obtained for proposals, which had for some time been under consideration, for extending the War Munitions Volunteer scheme in order to minimise the effects of the migration of labour.

It was accordingly announced in September that men in the occupations covered by the War Munitions Volunteer scheme, who were working on munitions work away from home on 1 September, 1917,

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1 Hist. Rec., R/221.1/41.
3 See below, p. 56.
4 M.W.L.R./139/226.
but who had not been assigned to their work by the Ministry, were thenceforward eligible to receive subsistence allowance and free railway passes to their homes on public holidays, provided they enrolled or had already enrolled as War Munitions Volunteers. It was proposed that such men should for the time being be assigned to the establishment in which they were working, but they might be moved subsequently, if the Ministry did not consider they were employed to the best advantage. Any desire expressed by the men for transfer would also be taken into account. It was hoped that these terms would induce many men to stay at their work who would otherwise return home.¹

The scheme was brought to the notice of the workpeople by an appeal issued by the Trade Union Advisory Committee, which appeared in the Press and was widely circulated.² This urged the men to remain at their work unless they had substantial reasons for leaving, emphasized the advantages enjoyed by War Munitions Volunteers, and appealed to all eligible workmen to put their services at the disposal of the Government by enrolling.³

Early in October a similar scheme for men not eligible, by reason of their occupation, as War Munitions Volunteers, was elaborated by the Ministry of National Service. Such men would be enrolled as War Work Volunteers, would receive the same terms as War Munitions Volunteers, and would be allocated to the work on which they were engaged. They would be under the control of the Ministry of National Service, and it was intended that the scheme should apply not only to men whose services firms desired to retain but also to any men wanted for war work, who would be transferred in the same way as War Munitions Volunteers.⁴

(c) The Repeal of Section 7, 15 October.

Mr. Churchill had stated in the House that the repeal of leaving certificates was only postponed until some arrangement had been made as to the wages of skilled time workers. A committee of which Major J. W. Hills was Chairman had been appointed at the beginning of August to consider this problem, and from that time until the middle of October the matter was under constant discussion. The result of these deliberations was the issue on 13 October of the Skilled Time Workers (Engineers and Moulders) Order, by which a bonus of 12½ per cent. on earnings was granted to fully qualified engineers and moulders rated at or above the current district rate for turners or fitters.⁵

At the end of September it was announced in the Press that the negotiations concerning the wages of skilled time workers were nearly

¹ M.W.L.R./139/204, 184; M.C./143.
² M.W.L.R./6038/14.
³ M.C./143. The number of enrolments increased rapidly during October. See Appendix IV.
⁴ M.W.L.S./46464/2.
⁵ The history of this award is told in detail in Vol. V, Part I, Chap. VI.
complete and that it was proposed to repeal the leaving certificate provisions as from 15 October.\(^1\) An order to this effect was made on 5 October.\(^2\)

In order to spread the movement of labour over as long a period as possible, employers were asked at the end of September to begin at once to grant leaving certificates to men who were known to be anxious to leave. Machinery was also set up by which employers, labour organisations, and the Transfer Committees which existed in certain districts where Admiralty work was carried on, provided Employment Exchanges with information as to the numbers of men likely to leave and the districts to which they wished to go, in order that labour might as far as possible be directed to places where it was wanted.\(^3\)

(d) The Effects of the Repeal.

The immediate migration of labour, however, was not in fact as extensive as had been feared. It had been anticipated that the largest movement would take place during the first few weeks after the repeal of the leaving certificate, but the reports received by the Ministry from Employment Exchanges showed that up to 30 October there was no appreciable movement of labour.\(^4\)

In December the Labour Supply Department was able to state that no serious loss of labour had been revealed in any one industry or locality. In the machine tool trade, probably one of the most seriously effected, there had been a loss of skilled men since 15 October amounting to about 25 per cent., but the other classes of labour in the industry had increased and the net loss was nil. The number of workers engaged on munitions as a whole had increased, and there was even an increase in the number of skilled men; while migration, as measured by the numbers leaving employment, was estimated at between .5 and 1 per cent. per week.\(^5\)

Thus the fear of an "ugly rush" of labour proved to a large extent groundless, and during the period immediately following the repeal of Section 7 few evil effects were reported. In some districts, it was true, the abolition of leaving certificates was said to have a bad effect on time-keeping, since employers were disinclined to take disciplinary action, for fear of losing their men;\(^6\) and considerable unrest was caused for a time, particularly in the Manchester and Birmingham districts, by the action of local employers, who agreed among themselves not to engage a workman who could not produce a character note showing that he had left with the consent of his last employer. The matter was referred to the Ministry, and after consultation with the Employers' Advisory Committee, a circular\(^7\) was issued on 2 November, pointing out to employers that it was not "consistent

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1 M.C./143.
2 Statutory Rule and Order, No. 1050 of 1917.
3 M.C./143; M.W.L.R./8875.
6 Ibid., No. 117, XVI (10 November, 1917).
7 M.M./170.
with the general policy of the Government that an employer should refuse to engage a workman on the ground that he had left without his previous employer’s consent.”

The full effect of the changed conditions was not, however, felt till the early months of 1918, when the dangers inherent in the restoration of the workers’ freedom of movement assumed a new seriousness. The paramount need at that time was for recruits for the Army, and the new recruiting measures which were adopted threatened seriously to diminish the already inadequate supply of skilled men. In these circumstances, it was of the utmost importance that the most essential work should have the first claim on the skilled labour available and it was more than ever true that the migration of a comparatively small number of skilled men might completely dislocate the machinery of supply. Moreover, freedom of movement at a time when the demand for skilled labour was out of all proportion to the supply enabled the workman to secure almost any wages he chose to demand. By the spring of 1918 it had become clear that the most serious effect of the abolition of leaving certificates was the upsetting of standard rates of wages.

1 M.W.L.R./8875.

2 The steps taken to control the distribution of labour are dealt with in Chapter IV. For an account of the Department’s proposals in connection with wages in the autumn of 1918, see Vol. V, Part I, p. 61.
CHAPTER II.

RELATIONS WITH LABOUR, AUGUST—DECEMBER, 1917.

I. THE REVISION OF ADMINISTRATIVE MACHINERY.

Whilst, during the summer of 1917, the main administrative questions before the Ministry of Munitions were those connected with the Munitions of War Bill and the abolition of leaving certificates, the general position with regard to the allocation of man power was becoming more and more critical. The demand of the forces for recruits was not being adequately met, and the enquiries made by the Commission on Industrial Unrest had shown that the problem of recruiting needed careful handling if widespread discontent was to be avoided. At the beginning of September steps were taken to place the control of man power on a wider basis. The Ministry of National Service was reconstituted, on lines which gave it powers far more extensive than those of the original National Service Department, and it took over from the War Office the responsibility for recruiting.

In the course of the summer also, relations between the Ministry of Munitions and Labour were put on a new footing by the establishment of a standing advisory committee of trade union representatives, which met from time to time at the Ministry to discuss outstanding questions. An advisory committee of employers was also constituted.

(a) THE MINISTRY OF NATIONAL SERVICE.

Lord Rhondda's committee in March, 1917, had fixed the quota of badged men to be released for military service from munitions and Admiralty work before the end of July at 124,000, one-quarter of whom were to be released each month. The release of anything like this number, however, was rendered impossible by the agreement with the A.S.E. of 5 May under which, before any skilled man or apprentice not covered, owing to age, by the Schedule of Protected Occupations, could be taken for military service, all male diluted labour liable and fit for general service in the occupation in the same munitions area was first to be withdrawn. As a result, it was impossible to recruit any munition workers except dilutees aged 18–32. The schedule was limited to men under 32, and the dilutees aged 32–41 formed a protective barrier to apprentices and skilled men. Moreover, the Government had promised to consult the unions concerned before any substantial revision of the schedule was made.

At the end of May the Adjutant-General stated that up to 25 May only one man had been posted of the whole number due under Lord Rhondda's scheme. Three weeks later, on 22 June, the Director-General of National Service (Mr. Neville Chamberlain) urged the

Cabinet to adopt the measure which he had previously recommended—the cancellation of exemptions and calling up of men by age groups, without regard to occupation and subject only to tribunal appeals. Despite the obvious difficulties of this course, Mr. Chamberlain was convinced that it was the only way in which the men required for the Army could be obtained, and failing its adoption he could see no justification for the continued existence of his Department. Its work had been greatly restricted by the claims of other Departments, and owing to the slow rate of release of men for military service there was little demand for the men who had enrolled in answer to the appeal for substitution volunteers.  

The Labour Department of the Ministry of Munitions, while admitting that the agreement with the A.S.E. made it impossible to release the Ministry’s quota of men, considered that there were weighty objections to the proposal for a clean cut according to age. A serious loss of output would have to be faced; certain of the men, such as tool-room hands, on whom the engineering shops were absolutely dependent, would be lost to production without any possibility of substitution. The Schedule of Protected Occupations had only just, moreover, weathered the storm, and unrest of a most serious character was to be expected if yet another form of protection were withdrawn from the craft unions.  

Towards the end of July the Director of Recruiting, Sir Auckland Geddes, was invited to lay his views on the theory and practice of recruiting before the Cabinet. He advocated a system of recruiting by occupation groups, and an enforced system of registration and identification, organised on a basis of such groups. He also pointed out that there were eleven Government Departments responsible for parts of the recruiting machine, and in order to ensure co-ordination suggested that recruiting should be placed under civilian control.  

At the beginning of August the Cabinet appointed a Man-Power Committee, consisting of Lord Milner, General Smuts and Mr. Barnes, with “full and final powers on behalf of the War Cabinet to decide, in consultation with the Departments concerned, all questions of recruiting and man power.” This committee decided that the recruiting organisation should be embodied in the National Service Department, and that that Department as a whole should be organised on new lines. Sir Auckland Geddes was appointed head of the reconstituted Department, which was henceforth known as the Ministry of National Service.  

The functions of the Ministry of National Service were approved by the Man-Power Committee on 10 September. In addition to the general duty of reviewing the whole field of man power, the Department was to arrange for the transfer of workers from less important to urgent national work, to determine the relative importance of various forms of civil work and prepare lists of reserved occupations, having regard to the necessity for maintaining essential public services and preserving a nucleus of civil industries, to obtain men for the

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1 G.T./1176.  
2 M.S./29482.  
3 G.T./1481, 1576.  
4 G.T./1647.  
forces, within limits laid down by the Government, and to determine
the physical fitness of those available, and to arrange for the provision
where necessary of labour (male and female) in substitution for that
withdrawn from civil life.

An agreement had already, at the end of August, been reached
as to the distribution of functions between the Ministry of National
Service and the Employment Department of the Ministry of Labour.
The latter department, and the Employment Exchanges, while working
in close co-operation with the Ministry of National Service, were to
remain under the Minister of Labour and were to retain the executive
functions of registering and enrolling, allocating and transferring labour,
both male and female. The Ministry of National Service was to
determine priority of demands for labour, subject to necessary
arrangements with the other Departments concerned.¹

In the middle of September a similar agreement was reached with
the Ministry of Munitions.² In order that the Minister of National
Service should be in a position to review the whole field of man power,
the Ministry of Munitions undertook to keep him informed of new
munition programmes or alterations in existing programmes. The
relative priority of labour demands put forward by various Depart-
ments was to be determined by a National Labour Priority Committee
to be established by the Minister of National Service, on which the
Ministry of Munitions was to have two members. This committee
was to act in conformity with recommendations and decisions as to the
general distribution of man power, and subject to ultimate appeal to the
War Cabinet. Once a quota of labour had been allocated to the
Ministry of Munitions, that Department was to be responsible for its
detailed distribution, and also for controlling its own mobile labour—
War Munitions Volunteers, soldiers released from the colours, and Army
Reserve Munition Workers. Volunteers enrolled by the Ministry of
National Service, however, if allocated to the Ministry of Munitions
were to remain under the control of the Ministry of National Service.³

The quota of men to be released by the Ministry of Munitions for
military service was to be decided by the Ministry of National Service,
after consultation between the Departments, and the Ministry of
Munitions was then to be responsible for individual releases. With
regard to releases from the colours, proposals for bulk releases were to
be submitted to the Ministry of National Service for approval. In the
case of individual applications for release an agreed procedure was to
be carried out by the Ministry of Munitions.

At the end of 1917 a proposal was put forward by both employers'
associations and trade unions connected with shipbuilding that in all
matters connected with the demand and supply of labour in shipyards
the Ministry of National Service should have sole control. It was
recognised that this policy, if accepted, must be extended to other

¹ G./155.
² C.R.V./Gen./1643.
³ The Government decided in December that the Ministry of National
Service should have the power to transfer War Munitions Volunteers from any
firm or work to any other firm or work, through the machinery of the National
Labour Priority Committee.
industries, and the Cabinet decided against it on the ground that it would involve removing responsibility for dilution from the Supply Departments which were in the best position to enforce it.

It was, however, decided, in order that the Ministry of National Service should be in a position to review dilution policy and control its administration, that copies of all dilution reports should be sent to the Ministry of National Service, and that a small staff should be attached to that Department selected from the dilution staff of other Departments, which could review the dilution reports and where necessary make independent investigations.\(^1\)

Early in 1918 an additional responsibility was placed upon the Ministry of National Service by the transfer to it of the functions exercised by the Ministry of Munitions since July, 1916, in connection with the licensing of building operations.

The demand for constructional labour had by the end of 1917 assumed serious proportions, being greatly accentuated by the rapid expansion in the aircraft programme, and in November it was said to be the most pressing of all the unsatisfied demands for labour for munitions purposes. Some 3,300 workmen were required at once for the construction of aircraft and other munition factories, and in addition the War Office was asking for 3,600 men for the erection of aerodromes.\(^2\)

The problem of building labour was considered by a Cabinet Committee appointed in December to deal with man power generally. The committee recommended that constructional programmes should be overhauled, with a special view to labour reforms, by the War Priorities Committee recently established to decide questions of priority in munitions work and that the control of licensing should be transferred to the Ministry of National Service, which should act under the general direction of the War Priorities Committee.\(^3\) In accordance with this decision the section of the Labour Supply Department of the Ministry of Munitions which dealt with building labour and licences was transferred to the Ministry of National Service on 1 March, 1918.\(^4\)

(b) Advisory Committees of the Ministry of Munitions.

Both the Employers’ and the Trade Union Advisory Committees had originated during the negotiations concerning the Munitions of War Bill, 1917.

In December, 1916, at Dr. Addison’s request, the Engineering Employers’ Federation had nominated a small standing committee which held frequent consultations with the Ministry concerning the Munitions of War Bill. In July, 1917, it was decided that the scope of this committee should be enlarged, and additional members were nominated by the Shipbuilding Employers’ Federation and the National Employers’ Federation. It was then constituted as a permanent Employers’ Advisory Committee, and held its first full meeting at the beginning of

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1 G.T./2804; G./185.
2 Hist. Rec./R/300/98.
3 G./185.
August. Periodical meetings were held with this committee throughout the following year and also with a small sub-committee to which detailed points not involving questions of principle were delegated.¹

The formation of an Advisory Committee of Trade Unions was suggested at a conference on 1 August by Mr. Duncan of the Workers' Union, who emphasised the need for "a really strong effective Advisory Committee, sitting regularly every day, if need be, to discuss the different difficulties that are arising" and to advise the Minister at first hand.² Mr. Churchill welcomed this suggestion, which was further discussed at subsequent conferences, and on 22 August, at a meeting with representatives of the engineering and shipbuilding trades, the delegates were asked to nominate about 20 members to serve on such a committee. As 44 nominations were received, the Ministry selected 23 members to serve on the regular committee, but arranged that the remaining 21 should be summoned to attend meetings at which matters particularly affecting their interests were to be discussed.³

The committee formed itself into three groups, dealing respectively with matters affecting shipyard labour, engineering and lesser skilled trades. These groups met individually when necessary, but meetings at which the Minister or his representative was present were, as a rule, of the full committee. It had been intended to hold regular weekly meetings but in practice the committee was only summoned as need arose.

At the first meeting on 29 August Mr. Churchill explained that he considered the prime function of the committee should not be to consider small grievances but to advise the Ministry on broad questions of policy which would be the subject of legislative or administrative action. In order, however, that the committee might be able to draw attention to any outstanding points a system was established by which questions of which notice had been given were answered at the meetings.⁴

On the formation of this committee it was decided that it was no longer necessary for the National Advisory Committee, which had been appointed shortly after the Treasury Conference in March, 1915, to remain in existence. The National Advisory Committee was accordingly dissolved, those members who had not already been appointed to the Trade Union Advisory Committee being invited at the end of October to join the latter committee.⁵

At the first meeting of the new Advisory Committee the question of the representation of women was discussed. It was agreed that the best course would be for a separate committee to be formed to deal with matters affecting women on munitions work.⁶ Accordingly the trade unions to which women were admitted were asked to nominate members and a Women's Trade Union Advisory Committee was appointed and held its first meeting on 7 November. The workers' representatives consisted of both men and women, the latter being in the majority. The committee was constituted to advise both the Minister of Munitions

and the Admiralty on all questions affecting the employment of women on munitions. From March, 1918, the War Office was also represented on it. In order to avoid duplication of work it was arranged that while any advice offered by the committee in regard to wages would be welcome, wages questions should as a rule be left to the Special Arbitration Tribunal set up in accordance with Section 8 of the Munitions of War Act, 1916.

Mention should also be made of the departmental committee known as "L" Committee. This was a small committee appointed by Mr. Churchill early in September, 1917, to consider questions of policy in connection with labour before reference to him. The Chairman was Sir Stephenson Kent, the Member of the Munitions Council representing the Labour Group, or, in his absence, Sir Charles Ellis. This committee shortly after its inception was called upon to consider the question of an award to skilled time workers, and played an important part in the deliberations which resulted in the grant of a 12½ per cent. bonus.

II. Labour Supply and Demand.

(a) THE PROGRESS OF DILUTION.

Although the provisions in the Munitions of War Act for the extension of dilution to private and commercial work had been dropped, the need which had led the Ministry to press for that measure remained. Steady progress had been and was still being made in dilution on war work in spite of the unrest during the spring. In July, 1917, the percentage of women to the total employed in the metal trades was 22.8 compared with 17.8 in July, 1916, and the figure for the chemical trade was 38.2 compared with 33.1. The actual number of women stated by firms to be directly replacing men in the metal and chemical trades had in July, 1916, been 101,500. A year later it had risen to 206,100.

At the end of July, however, the Labour Supply Department pointed out that the process must be carried much further if the steadily increasing demands for skilled labour, particularly for aircraft work, were to be met. In addition to a suggested special levy of 1,500 skilled men, 2,800 were required each month for the next three months for aeronautical work, and 80,000 more would probably be required in the early months of 1918. The new shipbuilding programme called for 12,500 skilled men, and there was also a steady demand for the technical units of the Army. To meet these demands further dilution was essential. At the same time it was feared that the opposition which had always existed to dilution would increase as the time approached when it would be necessary to introduce it into the tool-room. While the movement was officially supported by the trade union leaders, it was doggedly resisted by the rank and file of labour, yet without the active co-operation of the workmen themselves little progress could be made.

At a conference with the shipbuilding and engineering unions the day after the Munitions of War Act became law, Mr. Churchill appealed for this co-operation.

"We have abandoned altogether," he said, "the idea of extending dilution to the private firms, but you have agreed to and Parliament has enacted a system of dilution in the existing areas of the war munition factories, the controlled firms. As you know, it is by no means operative over the whole of that area, and I think we are entitled to ask you to give us your best assistance, now that we have renounced the intention of carrying it into the new areas, in making the law really effective in regard to the area of the war munitions work, because that will come to an end with the war, and there is no question of the future being prejudiced by anything that happens there. I do most strongly appeal to you to give us your aid and assistance in that respect."

During the following months, however, while there was no organised opposition to dilution on a large scale, individual instances of obstruction continued to be numerous, and in many cases where dilution could have been effected without technical difficulty, action had to be suspended for fear of strikes. In October, the Department was still emphasising the need for greater assistance from the unions.

An additional hindrance to dilution resulted from a wages Order (489) issued in April, 1917, by which a woman employed to do part of a skilled man's job had to be paid a skilled man's time rate after a probationary period of three months. This made it extremely difficult to introduce women on work previously done by men in establishments where any skilled work was customarily done by women, since the newcomers, who were as a rule proficient in one operation only, would be paid at a higher rate than women who had been there some time and were possibly doing work requiring greater skill. Moreover, a woman who had once served a probationary period could not be made to serve another, and therefore could not be transferred to skilled processes with which she was unfamiliar.

The abolition of leaving certificates also added to some extent to the difficulties of dilution, since when skilled labour was removed, there was at this time no means of preventing the employer from taking on skilled labour to replace it.

On the whole, however, the opposition which had at first been encountered from employers tended to decrease as the shortage of labour became more acute and as a result of the efforts of the Department. For some months in the summer of 1917 the dilution officers were much occupied with the Munitions Area Release Scheme and the usual procedure by which firms were visited and recommendations for transfer and substitution made suffered in consequence. Increased efforts were, however, made to promote dilution by more general

1 M.W.L.R./139/227.
3 See Vol. V, Part II.
4 Hist. Rec./R/324/119.
5 Ibid.
propaganda. Exhibitions of women's work were held in such centres as Leeds, Newcastle, Sheffield and Birmingham, and in some places cinematograph lectures were also given.¹

The facilities for training workers and supplying them to firms were also extended during 1917. The equipment of the technical schools controlled by the Ministry was improved and provision was made for instructional factories fully equipped and run on factory lines. The operations in which both men and women were instructed steadily increased in difficulty, and large numbers were supplied to aircraft factories. At the end of 1917 the training establishments under Government control were turning out about 300 workers a week and it was anticipated that this number would be increased to 500 in two months' time.²

(b) Labour for the 1918 Programme.

In August 1917 a committee of the Munitions Council was set up to consider the munitions programme for 1918 and on 8 September a sub-committee was appointed to consider and report on the labour available for that programme.³

The position at the time with regard to labour supply and demand was on the whole satisfactory. Though there was room for improvement in the rate of extension of dilution, gradual progress was being made. No single branch of munitions output was seriously hampered by lack of labour and though there was a total unsatisfied demand for 43,000 workers, including building labour, this figure was considerably below that of six months earlier, and in the experience of the Department the demand was invariably exaggerated. For the new programme the estimated requirements were approximately 25,000 skilled men, 58,000 unskilled men, and 70,000 women. The greatest demand was for the aircraft industry, which accounted for 10,000 skilled men, 40,000 unskilled men, and 50,000 women.

With regard to the 25,000 skilled men, it was thought that this number could be supplied without any great dislocation. The mobile skilled labour under Ministry control, i.e., War Munitions Volunteers, Army Reserve Munition Workers and men released from the colours, numbered about 210,000, and though over 70 per cent. of these were already engaged on important munitions work and of the remainder many were in essential occupations, such as food production and collieries, the proportion of the new demands to the total available was so small that there would have been little cause for apprehension had the programme of the Ministry alone been in question.

The position was, however, complicated by the claims of the War Office and Admiralty upon the available skilled labour. The Admiralty for their new shipbuilding programme needed 12,500 skilled men and 67,500 unskilled, and took up the position that they could not supply any of this labour by transfer from their own work. The Government had given instructions that the Ministry was to release for the Admiralty

¹ (Printed) Weekly Report, No. 120, X (1 December, 1917).
² Hist. Rec./R/324/119.
³ Hist. Rec./R/300/98.
any men employed on munitions who had had experience of marine engineering. The number of such men was large and the Government's ruling meant that the Ministry would have to release practically all the 12,500 skilled workmen required by the Admiralty.

The demand of the War Office was for skilled labour to serve as artificers in technical units. The Ministry was under an obligation to supply these men from civil work, except in so far as the requirements could be met by transferring skilled men already in the Army. On the latest War Office demand, which represented requirements up to the end of November, 5,000 to 6,000 men had still to be supplied by the Ministry, and an increased demand was expected as a result of the increased equipment of guns, aeroplanes, etc., which was to be supplied.

In these circumstances, the sub-committee, in their report submitted to the Minister on 2 November, stated their opinion that the demand for skilled labour for the 1918 munitions programme could be met provided the attitude of the Admiralty towards their own skilled labour was modified and the War Office could provide a greater number of artificers from their own resources, releasing the Ministry from their obligation. The sub-committee also considered it an essential condition that the co-operation of the skilled engineering unions should be secured for more extensive dilution on war work.

No difficulty was anticipated in supplying the 70,000 women required for the new programme, but the position with regard to the unskilled men was less satisfactory. Of the 124,000 men to be recruited under the arrangement sanctioned in March, 70,000 had still to be released, and if that number had to be replaced, the total unskilled labour required, taking into consideration the 58,000 needed for the new programme, would amount to 250,000. The sub-committee reached the conclusion that if the munitions programme was to be carried out the remainder of the quota for the Army could not be released and recruiting by a clean cut was not practicable.

This opinion was, however, soon to be revised. To meet the urgent demands for recruits in the first half of 1918, drastic measures were necessary, and when the Ministry of Munitions was called upon to find a greatly increased quota of men, officers of the Labour Department themselves recommended a clean cut as the most equitable and least disturbing method of withdrawing the required number of men from civil life. The recruiting arrangements in 1918 and the steps taken to secure a better distribution of the diminishing supply of skilled labour will be described later, but it may be mentioned here that none of the conditions on which the Committee on the 1918 Programme based their findings were destined to be fulfilled. Six months after the committee reported, the Labour Supply Department stated that the Admiralty were still failing to a large extent to meet their own labour demands, and that skilled men were still being called up for artificer units. As for the co-operation of the unions in extending dilution, it seemed improbable that this would ever be secured. Opposition was in fact growing steadily stronger, as it became necessary to extend dilution to the more highly skilled forms of work.¹

¹ Mr. Churchill's Papers, Box 31/8.
III. Unrest in the Autumn of 1917.

(a) The General Position.

It has been seen that the recommendations of the Commission on Industrial Unrest which specially affected the Ministry of Munitions were to a certain extent dealt with by the Munitions of War Act, 1917, which provided remedies for outstanding grievances. The appointment of the Trade Union Advisory Committee marked a further step in the Ministry's attempt to establish better relations with Labour. These measures did for the time being produce a susceptible improvement in the position, so that Mr. W. C. Anderson could say on 6 November, in the House of Commons, thanks to the concessions made "we have at this moment a much better atmosphere, in which there is far less industrial tension than there was some time back."¹

Attempts were also made to alleviate the general overstrain caused by lack of holiday and long working hours. The Department indicated its desire that munition workers' summer holidays, which had been curtailed in the previous year from output considerations, should be taken in the normal way, and special travelling facilities were arranged. A general limitation of hours of work was also under consideration during the summer and autumn, and though action on a large scale was not taken till 1918, an experimental reduction of hours in certain national factories was sanctioned early in November.² Energetic steps were also taken to deal with the housing problem in congested districts such as Barrow.³

Of the other causes of discontent indicated by the Commissioners on Industrial Unrest the food shortage continued to be the most prevalent. In spite of the measures taken by the Ministry of Food to control the price and distribution of the principal foodstuffs there was much discontent during the later months of 1917. In the middle of November, for instance, an organised strike took place at Coventry from Friday night, 16 November, till the following Monday, as a protest against the high prices and unequal distribution of food, and the workers threatened similar stoppages at fortnightly intervals unless their grievances were remedied.⁴ Other subsidiary causes of unrest, such as the lowering of the income tax limit,⁵ and the effect of air raids on the workers' nerves⁶ were from time to time reported to the Ministry by its local officers, but on the whole unrest as it affected the Ministry during the latter part of 1917 centred round two points, the award of the 12½ per cent. bonus to skilled time workers and the recognition of shop stewards. The former gave rise to numerous temporary stoppages of work throughout the country, the latter was the cause of a serious strike at Coventry at the end of November, which lasted for some days.

¹ Parliamentary Debates, H. of C. (1917), XCVIII, 2073.
² See Vol. V, Part III.
³ See Vol. V, Part V.
⁵ Ibid., No. 112, XVI (6 October, 1917).
⁶ Ibid., No. 113, XVI (13 October, 1917).
(b) The 12½ per cent. Bonus.

The history of the 12½ per cent. award is given in detail elsewhere,\textsuperscript{1} and needs only brief mention here. The award, as is explained above,\textsuperscript{2} was primarily intended to prevent the migration of the skilled men on time work to better paid piece work on the abolition of leaving certificates, and the original order issued on 13 October conferred the bonus only on fully qualified skilled engineers and moulders rated at or above the current district time rate for turners or fitters while employed on or in connection with munitions work and paid at plain time rates. It applied only to men whose wages “it was the practice to regulate by the movements of wages in the engineering and foundry trades,” and was thus sent in the first place to engineering works.

During the discussions preceding the issue of the award the fear was frequently expressed that it would be difficult to restrict it within its intended scope, and this fear proved to be only too well grounded. The order immediately gave rise to great discontent among excluded classes of workers, and demands for the extension of the bonus at once began, although a Press notice issued on 27 October explained that the order was intended simply to remedy the skilled man’s grievance and was not in any sense a general award. Meetings of workmen to express dissatisfaction and to demand the bonus were reported from all over the country. At Oldham, for instance, a meeting of engineers on 4 November passed a resolution demanding the extension of the bonus to all men “from draughtsman to labourer” employed on time rates, whether on war work or private work. The Chief Investigation Officer for the Manchester area reported at the beginning of November that the demand in that district was for the extension of the bonus to all classes of labour engaged on munitions work, and that the trade union leaders whom he had consulted considered there would be no peace till this was done. In certain districts also a tendency was reported for men on piece work systems to demand transfer to time rates, since their earnings were less than those of time workers receiving the bonus.\textsuperscript{3}

At the end of October representatives of a number of engineering trade unions expressed great dissatisfaction and anticipated a general strike. This did not take place, but by the second week in November strikes were reported of machinists at Salford and Manchester, of coremakers at Manchester, of fettlers at Derby, and of unskilled workers at Bedford. In the following week, about 1,400 skilled men at Burnley struck to enforce payment of the bonus to all skilled men on munitions, priority or commercial work, and the trouble spread throughout the engineering and foundry trades in the district, men who were receiving the bonus striking in sympathy with those who were not.\textsuperscript{4} These examples are typical only. Similar conditions existed elsewhere and strikes and threats of strikes on the question of the bonus continued all over the country throughout the winter.

\textsuperscript{1} Vol. V, Part I, Chap. VI.
\textsuperscript{2} p. 9.
\textsuperscript{3} (Printed) Weekly Report, Nos. 116, 117, XVI (3 and 10 November, 1917).
\textsuperscript{4} Ibid., and No. 118, X (17 November, 1917).
As the Leeds Chief Investigation Officer put it at the end of November, the award was the root of all the labour troubles; almost all the strikes which were occurring were connected with it, while the strikes avoided were too numerous to be recorded.¹

The unrest was at first most marked among skilled time workers in occupations connected with engineering but not covered by the award, and among semi-skilled and unskilled men on time rates, who considered their earnings, equally with those of the skilled men, inadequate in comparison with piece work earnings. It subsequently spread to time workers in other industries, such as the iron and steel trades, in which 12,000 men were on strike in the Sheffield district at the beginning of January, 1918,² and the aircraft woodwork and building trades. It also affected piece workers, who found they no longer had the advantage over time workers in the matter of earnings.

In answer to the workers' demands the scope of the award was gradually extended. The first extension was promised on 21 November, when the Government announced that the bonus would be granted to all time workers on munitions in engineering and shipbuilding establishments and in foundries.

A few days later the appointment was announced of a committee, of which Mr. Barnes was chairman, to deal with wages questions and co-ordinate the settlement of disputes affecting Government Departments.³ To this committee, which was known as the Government Labour Committee, was referred the interpretation of the original 12½ per cent. order, the drawing up of an order issued on 11 December, extending the bonus to semi-skilled and unskilled time workers in the engineering and shipbuilding trades, and the question of claims from piece workers.

At the beginning of January, 1918, the Minister of Munitions was authorised to extend the bonus to all time workers in the engineering and foundry trades, to settle any claims from the building and chemical trades arising from that extension and to hold conferences with other trades to arrange a settlement. An agreement with iron and steel workers was reached on 3 January and was followed by similar settlements with allied metal trades.

A week later, the Government decided to extend the bonus also to piece workers and to transfer to the Ministry of Labour from the Government Labour Committee and the Ministry of Munitions authority for dealing with claims. The Government Labour Committee was accordingly dissolved. The grant of a bonus of 7½ per cent. to piece workers was announced on 24 January; and the process of extension to trades and to individual firms, by means of Committee on Production awards, continued throughout the spring.

The piecemeal manner in which the award was extended and the inevitable delays which occurred for the time being increased rather than allayed unrest. Thus the first extension to time workers in engineering and shipbuilding establishments was reported to have greatly increased discontent in the Bristol area among the skilled men.

² Ibid., No. 124, X (5 January, 1918).
³ Hist. Rec./R/342/136.
in trades which were not affected, while in Wales it was stated to have shifted the discontent back from the semi-skilled and unskilled men to the skilled men.¹

By the end of January reports from the various areas indicated some abatement in the universal unrest, but in certain districts trouble was experienced for some months more. Disputes concerning the 12½ and 7½ per cent. bonuses continued in fact to be a frequent cause of strikes throughout the first half of 1918, and did not cease until the awards had been extended to the limits of their application.

(c) Shop Stewards and the Coventry Strike, November, 1917.

The part played by the shop stewards during the engineers’ strike of April and May, 1917, and the refusal of the Government to negotiate with the unofficial strike committee of the movement, are described elsewhere.²

During the summer and autumn of 1917 the shop stewards continued to preach revolt against the existing trade union organisation. In June a conference at Manchester passed a resolution which “declared war on the present executives of the A.S.E. and allied unions,” and Woolwich shop stewards were said to contemplate seizing the offices of the A.S.E. and ejecting the executive.³ Such threats as these were not carried into effect, but the stewards were constantly on the watch for the opportunities afforded them by unrest among the workers. Thus at the end of October when the award of the 12½ per cent. bonus was causing serious discontent, the Ministry were informed that the shop stewards in Sheffield were actively encouraging the unrest, having for months past been organising with a view to just such an opportunity.⁴

In the course of the summer of 1917 the shop stewards became closely associated with the movement for the amalgamation of unions, which had lately been growing in strength, on lines somewhat different to those it had followed before the war. During the past year a series of “rank and file” conferences had been held, and at one of these, in June, 1917, a National Administrative Council for the movement had been appointed, and it had been decided to take a workshop ballot on the question of amalgamation.⁵ In August a division took place in the movement; the more revolutionary members associating themselves with the Industrial Workers of the World and the more moderate becoming more closely connected with the shop stewards.⁶

In the middle of August a national conference of shop stewards was held at Manchester. The meeting was stormy, and revealed considerable division of opinion as to the aims of the movement. The only resolution passed was one of indefinite adjournment, but an executive committee was appointed, and this committee, which had

¹ (Printed) Weekly Report, No. 121, X (8 December, 1917).
² Vol. VI, Part I, Chap. V.
⁴ M.W.L.R./5997/10.
⁵ The result of the ballot was declared in September. A majority of A.S.E. votes was in favour of amalgamation, but no definite plan for carrying it out was formulated. (Hist. Rec./R/300/99, 106.)
⁶ Ibid., Hist. Rec./R/300/107.
its headquarters in Manchester, acted in close conjunction with a body known as the National Metal Engineering and Shipbuilding Amalgamation Committee, whose object was "one industry, one union, one card." 1 Under the auspices of this committee, a further rank and file conference was held at Newcastle in the middle of October. Here again there was a lack of unanimity; a resolution that the time was not yet ripe for one industrial union was narrowly defeated. 2

In the meantime the shop stewards movement was increasing its influence in individual centres. In Coventry, in particular, it had ample scope, owing to the universal grievance of high food prices being particularly acute in the district. Moreover, local employers were markedly unsympathetic to the movement. In the middle of October the Ministry's local representative reported that the situation in Coventry was precarious. A number of points in dispute at Messrs. White & Poppé's works had been referred for arbitration and there were alleged delays in settling them. Several small strikes had taken place, and a general strike was threatened, but was averted for the time being. 3

On 20 November a number of toolmakers and setters employed by Messrs. White & Poppé struck over a wages dispute, and the management refused to see the shop stewards who waited on them to put forward their views. As a result, a general strike was threatened on the issue of the recognition of shop stewards as the medium of communication between the workers and the management. On the 24th, at a conference between the men's representatives and the local employers, the latter explained that the recognition of shop stewards was one of the questions which would come before a conference between the Engineering Employers' Federation and the A.S.E. arranged for 14 December. This did not satisfy the men. Later in the same day the shop stewards met the Coventry Joint Engineering Trades Committee, a body representative of the skilled engineering unions in the district, which had assumed functions normally performed by the head offices of the various unions, including the power of calling strikes. By a majority of 7 the joint meeting decided to strike at once. 4

On Monday, 26 November, accordingly, about 50,000 workers, mainly engaged on aeroplane work, went on strike. By the end of the week no decision had been arrived at locally, and representatives of employers and workmen were invited to discuss the matter with members of the War Cabinet. Meetings were held on 1 and 2 December and in the evening of the second day an agreement was signed which provided that if the men resumed work on 4 December a local conference would be held immediately to negotiate on all the points in dispute, the Government undertaking to urge on both sides the necessity for an immediate settlement of the shop stewards question. 5

2 G.T./2331.
4 Ibid., No. 120, X (1 December, 1917); Report on Labour in Great Britain, November, 1917 (Hist. Rec./R/300/108); G.T./2799.
5 (Printed) Weekly Report, No. 120, X (1 December, 1917).
Work was resumed on 4 December, and the proposed local conference opened on the same day. On 7 December a national conference between the Engineering Employers’ Federation and the engineering trade unions met in London, and continued during the following fortnight to discuss the recognition of shop stewards. In the meantime, the National Amalgamation Committee at Manchester had summoned an emergency meeting of shop stewards, which on 6 December resolved not to recognise the findings of any conference on the status of shop stewards at which they were not represented.¹

On 17 December, the representatives of the A.S.E. withdrew from the London conference and the union was not a party to an agreement signed on 20 December between the Engineering Employers’ Federation and 13 trade unions. This agreement provided for the appointment of workers’ representatives in the shops, who would be known as shop stewards, would be subject to the control of the trade unions, and would act in accordance with trade union rules and any agreements with employers affecting relations between the management and the workers. A detailed procedure was laid down for the discussion of points at issue through the medium of the shop stewards.²

Thus the engineering employers accepted the policy of negotiation with representatives elected from the rank and file in the shops; but the agreement was only a partial settlement and was by no means binding on the whole of the engineering industry, since the A.S.E. and other unions had not signed it. Its chief importance lay in the definition which it provided of the relations between the shop stewards and the official trade union movement, by recognising shop stewards as a definite part of the trade union organisation with specific functions in regard to the settlement of disputes.

The agreement was of importance also from the point of view of the establishment of works committees, which had for some time past been recommended by the Ministry of Munitions as a means of solving the problem of industrial relations. It provided that negotiations on questions touching more than one branch of trade or more than one department of the works were to be conducted by the management with a deputation of stewards and that negotiations might be instituted either by the management or the workmen.

(d) WORKS COMMITTEES.

The attempt on the part of the Ministry to induce employers to recognise properly constituted works committees, one of whose functions would be to act as the authorised channel for making grievances known to the management, was partly due to the shop stewards movement.

Committees representative of all the workmen in a factory, irrespective of their trade unions, had been common in the engineering industry before the war, and war conditions had led to an increase in

² Copy of Agreement in Hist. Rec./R/300/99.
their number and to an extension of their functions. In addition to dealing with such matters as methods of remuneration, welfare and the improvement of working conditions, and to some extent dilution, cases occurred where works committees played an important part in the maintenance of discipline. Thus, in the case of a Yorkshire firm, which was brought to the notice of the Ministry in the summer of 1917, a "works tribunal" was established, composed entirely of workmen, which tried cases of bad time-keeping and imposed fines, the delinquent having the option of being tried by the works tribunal or an ordinary munitions tribunal. The scheme was reported to have improved time-keeping at the works and also to have brought about a better relationship between the management and the workers.\footnote{Report of an Enquiry made by the Ministry of Labour into Works Committees, March, 1918 (Hist. Rec./R/300/46); M.W.L.R./139/189.}

The shop stewards, as chosen representatives of the rank and file, naturally bulked largely among the members of works committees, which thus became in some cases identified with the shop stewards movement. The Ministry recognised that this was inevitable, but hoped that the constitution of officially approved works committees, with functions more or less clearly defined, would help to check the more revolutionary tendencies of the shop stewards movement by bringing it into an ordered scheme.\footnote{M.W.L.S./20836.}

Mr. Kellaway, speaking in the House of Commons on 6 November, 1917,\footnote{Parliamentary Debates, H. of C. (1917), XCVIII, 2091.} in the debate on the Consolidated Fund Bill, put the case for works committees as follows:—

"I am satisfied, from the experience of shop committees that have been set up under proper conditions and with a real sympathy and desire to help the working between masters and men, that these committees may do more than any other piece of industrial machinery to get rid of industrial grievances and industrial unrest. . . . I see no reason why the shop stewards . . . should not be brought into this system of shop committees . . . I believe that if we were able now, whilst securing and preserving the authority of the trade unions, to bring in these men and harness them, give them a sense of responsibility, and put them on shop committees, we should find that even those sinister figures might make for industrial solidarity."

Throughout 1917, accordingly, the Ministry did its best to promote the formation of works committees, sometimes in the face of considerable opposition. For instance, in April, 1917, a strike took place at the works of Messrs. Hotchkiss et Cie of Coventry, the real point at issue being the recognition by the management of the right of the workers to elect a works committee. The local Engineering Employers' Federation was strongly opposed to the idea of a works committee, fearing its connection with the shop stewards movement, and was supported by the trade union officials, who considered that the organisers of the committee were merely trying to usurp their authority. On the recommendation of the Ministry, however, the employers and
the unions agreed to the establishment in Messrs. Hotchkiss' works of a representative committee of shop stewards for a probationary period of two months. Its functions were to be advisory only, and were not to encroach upon the powers either of the management or of the union executives. The committee was elected by the workers, none of the extremists among the shop stewards being chosen, and at the end of the experimental period was reported to have been an unqualified success. It was therefore continued until the end of the year, when it was dissolved owing to its constitution having become unacceptable to the shop stewards.1

The question of works committees was frequently discussed with representatives of both employers and workmen during the negotiations concerning the Munitions of War Act. The official trade union representatives, while in theory supporting works committees, showed great anxiety that their functions should be restricted to purely domestic matters and that the Ministry should take no steps which might encourage them to undermine the authority of the trade union executives. They explained that the works committees which had existed in most engineering works of any size for some 12 years had, before the war, been subject to the control of the district committees of the trade unions, but lately they had attempted to throw off this authority and to usurp functions outside their proper scope.2 The employers' representatives, while recognising the advantages of works committees, thought that they had their dangers, and in any case objected to the Ministry's method of pressing individual firms to introduce them. They considered the matter should not be dealt with piecemeal, but rather as one of general policy.3

The question was, in fact, being considered from the broad point of view in connection with the first report of Mr. Whitley's Committee on Relations between Employers and Employed, with its recommendations of joint organisation in the workshops, in the districts, and nationally. As has been seen,4 this report had been made public while the Commission on Industrial Unrest was sitting and had been endorsed by the Commission. Before publication it had been issued to trade unions and employers' associations, with a request for their views. This first report dealt with industries in which organisation of employers and employed was well established; the second report, dated 18 October, elaborated a scheme for less well organised trades; while the third report, of the same date, considered in greater detail the proposed joint organisation in the workshop. The investigation into the view taken of the proposals by employers and workmen, which was not completed till the autumn, revealed sufficient support for the policy outlined to justify its adoption and on 25 October the Government announced that they hoped to see the recommendations carried

1 (Printed) Weekly Report, No. 87, XII (14 April, 1917); No. 88, XII (21 April, 1917); No. 90, XV (5 May, 1917); No. 99, XV (7 July, 1917); Hist. Rec./R/390/46.
2 M.W.L.R./6038/2; 139/227.
3 Hist. Rec./R/300/88; M.W.L.R./139/204.
4 See above, p. 5.
into effect. Employers and men were invited by the Ministry of Labour to confer with a view to the establishment of Joint Industrial Councils, trades where the ground had been in some degree prepared being first approached. The formation of the first national council, for the pottery industry, was announced on 21 December.¹

The workshop organisation contemplated in the Whitley reports was essentially a joint organisation of the management and the men; whereas the works committees already in existence consisted, in the great majority of cases, of workmen only. Officers of the Ministry of Munitions inclined to the opinion that the latter form of committee was preferable, since it was important that the men should feel free to hold full discussions, and the presence of a representative of the management might prevent this and lead to unofficial gatherings of workmen. They considered, however, that joint conferences with the management should be held at frequent intervals. Thus a memorandum drawn up in the autumn as a basis of discussion with employers and trade unions suggested that committees of workmen, elected for a specified period, in addition to their regular meetings, should hold joint conferences with the management whenever necessary to discuss such matters as the interpretation and application of arbitration awards, orders, etc., projected changes in working conditions, improvements in organisation, alleged grievances, and so on. The committees’ functions should also include acting as tribunals in cases of breach of works discipline.²

Early in September the Trade Union Advisory Committee provisionally approved of a scheme for expediting the settlement of local disputes by means of a system of workshop committees, varying in their constitution and functions according to the needs of the particular trade or factory concerned, and of local Settlement Committees, composed of two representatives of employers and two of workmen, with a neutral chairman, to supplement the existing organisations for dealing with disputes. It was not intended to apply this system in the numerous cases, particularly in the shipbuilding industry, where there already existed satisfactory arrangements between employers and employed for the settlement of disputes, but there was considered to be scope for it among non-federated firms in the engineering industry and less skilled trades.³ No immediate steps were taken, however, as the Government had not yet decided on their line of action with regard to the Whitley Report. Later on, at the end of November, more definite proposals for the constitution and functions of works committees, on the lines indicated above, were put before the Employers’ Advisory Committee, but members of the committee objected to the adoption of any definite scheme at a time when they were negotiating with the trade unions concerning joint organisation on the triple basis proposed by the Whitley Report. They did not want to be committed to any plan which might prejudice

² M.W.L.R./5581/14.
³ M.C./143; M.W.L.R./6038/10.
a general settlement of the whole question, and the matter was therefore dropped.¹

The negotiations for Joint Industrial Councils in the engineering industry were not, however, successful, and as time went on a strong feeling grew up among the workers against the proposals of the Whitley Report. A scheme, more or less on the lines suggested, was adopted by the shipbuilding industry in May, 1918, but the complex organisation of the engineering trade and the strong opposition shown by the unofficial rank and file movement to any proposals for co-operation with employers proved obstacles too serious to be overcome.²

¹ M.W.L.R./5581/14. ² Labour Year Book, 1919.
CHAPTER III.
MEN OR MUNITIONS IN 1918.


(a) The Recruiting Position at the End of 1917.

It has been seen that the recruiting position in the summer of 1917, before the reconstitution of the Ministry of National Service, was considered highly unsatisfactory. The transfer to a civilian Department of the responsibility for obtaining men for the forces did not bring about any immediate improvement; on the contrary, the recruiting figures steadily declined, and in October, 1917, only 36,500 men were obtained, compared with 88,500 in May, 1917. This decrease in the intake of recruits was particularly serious in view of the military situation in the autumn. The withdrawal of Russia from the Alliance made it possible for the Germans to transfer a number of divisions from the Eastern to the Western front, and though the entry of America into the war would, it was thought, ultimately redress the balance of numbers in favour of the Allies, the immediate problem was the maintenance of the forces at the required standard until the American troops could be brought into action.

In the middle of November the Minister of National Service reviewed the possibilities of meeting the demands of the forces for recruits. Against 600,000 Category A men required by the Army before 30 June, 1918, and 90,000 men required by the Navy, Sir Auckland Geddes estimated that without depleting essential industries only 150,000 Category A men could be obtained from civil life under existing legal powers. The supply of men of lower grades would also fall short of the demand. He therefore suggested certain legislative changes, such as raising and lowering the military age, and extending compulsory military service to Ireland.

Early in December a Cabinet Committee on Man Power was appointed to consider the whole problem of the best utilisation of the available man power and to formulate concrete proposals. This committee, of which the Prime Minister was chairman, had completed a draft report by 15 December. The committee considered the question from the widest aspect, enquiring into the resources of the Allies as a whole, the probable balance of advantage between the allied and enemy forces in 1918, the possibility of reducing wastage, and so on. Coming to the question of civilian sources of man power, they accepted Sir Auckland Geddes' estimate of the maximum number of men obtainable under existing legal powers, but rejected his proposals.

1 G.T./2751. 2 G./174. 3 M.P.C./1; G./185.
for altering the military age and bringing Ireland within the scope of the Military Service Acts. Instead, they recommended legislation to enable men to be taken in age blocks according to their occupation, to provide for more complete registration of males, and to accelerate the flow of recruits by abolishing the two months' period of exemption allowed after the withdrawal of exemption certificates to men engaged in certified occupations, and also the fortnight's grace attaching to exemptions by a tribunal.

With regard to the number of men to be recruited from shipbuilding and munitions industries, Mr. Churchill had at the beginning of December suggested that it might be possible to withdraw up to 120,000 men of Category A. Sir Auckland Geddes, however, considered that not more than 62,000 men could be taken without reducing the output of munitions, and the Committee on Man Power considered that such reduction would be inexpedient, since it was desirable to supplement the man power of the Army as far as possible by increased mechanical power. 1 The committee therefore endorsed Sir Auckland Geddes' proposal for a levy of 62,000 men from munitions and shipbuilding. The Government decided, however, that this number must be improved upon, and the quota of men to be taken between January and June, 1918, from firms employed by the Admiralty, the Department of the Surveyor-General of Supply at the War Office, and Ministry of Munitions was fixed at 108,000. 2

(b) The Clean Cut.

In the meantime the Ministry of Munitions had had under consideration the best means of providing its quota of men. On the Minister's instructions, a scheme was drawn up at the beginning of December for obtaining 100,000 Category A men by means of a revision of the Schedule of Protected Occupations and a "clean cut" up to 23. It was estimated that if the age limit in the Notes to the Schedule of Protected Occupations for munition workers not covered by the Schedule was raised from 32 to the maximum military age, 50,000 Category A men could be obtained over a period of about four months; without such revision only 20,000 could be obtained. The cancellation of the agreement of 5 May with the A.S.E., by which young skilled men were protected until dilutees had been withdrawn, 3 would yield another 5,000 men. These numbers might be increased if dilution could be carried further and more effective means devised for the substitution of unfit for fit men, but it was impossible to base an estimate on these suppositions, and the maximum number of Category A men which could be counted on without adopting the policy of the clean cut was thus 55,000. It was anticipated that a clean cut would provide 50,000 men, but as this total would include the 5,000 protected by the A.S.E. agreement, the actual increase would be 45,000. 4

Thus Sir Auckland Geddes' levy of 62,000 could not be obtained either by the revision of the Schedule of Protected Occupations

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alone or by the clean cut alone, but a number considerably in excess of the levy could be provided if the two policies were adopted concurrently.

To provide 50,000 men, however, the clean cut would have to be universally applied, and men would have to be taken from shipbuilding as well as from munitions. Hitherto the number of recruits obtained from the shipbuilding industry had been negligible,\(^1\) owing to the protection afforded to practically all classes of men on Admiralty work, but the Ministry were of opinion that some 14,000 young men could be withdrawn from marine engineering and shipbuilding, and replaced where necessary by less fit men from munitions work; and that the only shipbuilding workers whom it was essential to protect were those engaged on hull construction and repair. The exemption of this limited class would not, it was thought, seriously detract from the popular appeal of a system which would avoid the retention of young fit men in industry while older men with families were obliged to serve. The popularity of the measure would be a considerable asset, since it was of great importance to the Government to have the support of public opinion in the negotiations which they would have to enter into with the trade unions to secure the cancellation of the pledges at present restricting recruiting.\(^2\) With regard to the effect on production, the Labour Department estimated that while the clean cut would undoubtedly cause a temporary loss in output, much could be done to direct its incidence to the less important munitions, especially if the process of withdrawal was spread over a period such as six months.

The question of a universal clean cut was considered by the Government in the middle of December in connection with the draft report of the Committee on Man Power.\(^3\) The Admiralty urged that the loss of shipyard workers involved would have a most serious effect on the shipbuilding programme, and the probable loss to agriculture was considered equally serious. Some recognition of occupations was considered essential, though it was recognised that this would increase the administrative difficulties of the scheme, and it was finally decided to adopt the modified clean cut, by which men would be taken in age blocks according to their occupation.\(^4\)

An agreement was reached between the Ministry of Munitions and the Admiralty, by which the latter’s share of the quota of 108,000 to be raised from munitions and shipbuilding was fixed at 12,500, and in consideration of the age of protection being made the same for marine as for general engineering, save in the case of workers on ships’ hulls, the Ministry undertook to provide substitutes for the skilled men called up from Admiralty work, in so far as their places could not be filled by other expediens, such as dilution.\(^5\)

\(^1\) From May to December, 1917, 68,000 men had been released from munitions, shipbuilding, etc., and of these only about 1,000 came from Admiralty firms. (Hist. Rec./R/322/112.)

\(^2\) M.W.L.S./R/17969/2.

\(^3\) The draft report was subsequently revised and made more complete, but it did not come up for consideration again until towards the end of January.

\(^4\) Mr. Churchill’s Papers, Box 31/6.

\(^5\) Hist. Rec./R/322/112.
The way in which it was proposed to administer the clean cut system was subsequently described by Sir Auckland Geddes in the House of Commons:—

"Let us suppose that we have a series of occupations which, for our present purposes, I may describe as occupations A, B and C. The production effected by occupation A may be extremely vital and just equal to requirements; that of occupation B may be to some extent equally vital, but may be one-third in excess of minimum requirements; whereas that of C, though equally vital, may be one-half in excess of minimum requirements. We propose in such cases to leave industry A alone; to draw from industry B roughly one-third of the men engaged in it; and from industry C half the men engaged in it; taking from really vital industries only those fit for general service and securing the number required by a clean cut determined on an age basis for the particular occupation."

In order to carry into effect these proposals for a clean cut, in the modified form which was alone considered practicable, it was necessary that the Government should have power to withdraw exemptions granted to men on occupational grounds, and that the Schedule of Protected Occupations should be revised. The latter could be done by administrative action, though the Government were pledged to prior consultation with the unions concerned in the matter; the former required fresh legislation.

(c) Conferences with Trade Unions, January, 1918.

On 20 December, in his speech on the adjournment for the Christmas recess, the Prime Minister reviewed the position and explained the reasons which made it necessary to take fresh steps to increase the supply of men for the Army, mentioning as an additional motive the desire of the Government to avoid sending back into the firing line men who had been more than once wounded. He referred to the promise given in May, 1917, that the unions affected by the Schedule of Protected Occupations should be consulted before any substantial change was made in the schedule, and explained that before any fresh legislation was introduced the Minister of National Service intended to hold conferences with representatives of all the unions concerned, in order to place the whole position before them and explain the details of the Government’s proposals.

A general conference of the unions was accordingly summoned on 3 January, 1918, at which Sir Auckland Geddes emphasised the Government’s conviction that it would be impossible to maintain the forces in the field at the required strength pending the arrival of American reinforcements unless large numbers of men were recruited from munitions work. A second general conference was held on the following day, but subsequent meetings took the form of sectional

1 In his speech introducing the Military Service Bill (Parliamentary Debates. H. of C. (1918), Cl, 73, 74).
3 Times, 4 January, 1918.
conferences representative of the various industrial groups. These meetings were chiefly occupied by discussions of the precise way in which the Government's proposals would affect each industry and of details connected with the revision of the Schedule of Protected Occupations. The group conferences continued for a fortnight, and a final general conference was then held at which the Prime Minister was present.¹

The proposals were also explained, on 18 January, to a conference of employers' representatives. Sir Auckland Geddes pointed out that the industries hitherto least depleted by recruiting, i.e., the munitions industries, must now be the most seriously affected, since non-essential trades had already been drained of almost all their available men. It had been ascertained that only about one in three of the men of military age on munitions work were fit for general service, and since it was not intended to take men of lower physical grades, the proposal in effect amounted to taking from a given occupation approximately one-third of the men below a certain age limit, fixed according to the importance of the occupation.²

With regard to the result of the conferences with trade unions, Sir A. Geddes said that while the Government had no hope of persuading the young men as a whole to agree voluntarily to being recruited, the meetings had put clearly before Labour the fact that the Government must have freedom of action and the reasons which necessitated their asking for release from the pledges previously given with regard to the protection of skilled men. "I do not think," he said, "at all events we shall be accused of breach of faith."

The most important single union connected with munitions work, however, had not been represented at these meetings. Delegates from the A.S.E. had been present at the first general conference, but not at the second, and had declined to take part in the meetings of the engineering group, on the ground that the agreements of May, 1917, relating to the Schedule of Protected Occupations and the protection of young skilled men had been concluded with them alone, and that any proposals for the abrogation of those agreements should therefore be negotiated with them apart from the other unions.³ Moreover, in putting forward their claim to separate consultation they asserted their view that the military needs of the country did not justify the cancellation of the pledge that dilutees fit for general service should be withdrawn before skilled men. By the middle of January it was clear that strong opposition to the man power proposals was to be expected from the A.S.E., but the Government declined to acknowledge their right to a separate conference and decided to proceed with the legislation necessary to carry out the new scheme.

(d) The Military Service (No. 1) Act, 1918.

A new Military Service Bill was introduced into the House on 14 January. It was a short measure of two clauses, the first designed to carry out the recommendation of the Cabinet Committee on Man

¹ Parliamentary Debates, H. of C. (1918), Cl, 68, 69.
² M.W.L.S./17969/5. ³ Parliamentary Debates, H. of C. (1918), Cl, 1154.
Power for the abolition of the two months’ period of grace on the withdrawal of certificates of exemption;¹ the second empowering the Minister of National Service to cancel certificates of exemption granted on occupational grounds.²

In his introductory speech,³ Sir Auckland Geddes stated that if proposed expansions in the Navy and Air Force were to be carried out and the Armies in the Field maintained, it would be necessary to recruit from civil occupations not less than 420,000 to 450,000 men. It was, however, proposed simultaneously to return to civil life a number of men then in the forces, so that the total loss to industry would be less than the number withdrawn. The main object of the proposals was to distribute fairly the burden of military service and secure equality of sacrifice, so far as was possible.

With regard to the first clause of the Bill, Sir Auckland Geddes explained that the arrangement for the two months period of grace had originally been made as a consequence of the leaving certificate provisions, to prevent the summary calling up of men who had left without a certificate and therefore could not be re-employed for six weeks. With the abolition of leaving certificates the reason for the provision had gone, and as its practical result had been to enable men to avoid military service by concealing their identity and obtaining fresh work, often of no national importance, it was hoped that the clause would both accelerate the flow of recruits and increase their numbers.

Under the second clause, the Minister of National Service would have power to withdraw any certificate of exemption on occupational grounds by means of an administrative order, which might be applied either to individuals or to any class of men falling within such age limits or fulfilling such other conditions as might be specified in the order. Provision would be made for an interval of 14 days between the issue of an order and the actual withdrawal of exemption from an individual, while orders affecting classes of men would be widely published before they became operative. In the course of the debate it was made clear that the cancellation of his exemption certificate would not prevent a man from appealing for renewed protection for reasons other than occupation, e.g., on compassionate grounds, or because he was a conscientious objector. The object of the clause was to enable the Government “to proceed with recruiting on an easily understood system of clean cuts by age, by occupation.”

The Bill passed through both Houses without substantial alteration, and received the Royal Assent on 6 February.⁴ No immediate use was made of the power to withdraw occupational exemptions, and the

¹ i.e., certificates granted under the Military Service Acts. The “protection certificates” issued in connection with the Schedule of Protected Occupations and otherwise carried no such privilege (see Vol. VI, Part I, p. 83).
² The recommendations of the Man Power Committee relating to the system of registration were dealt with by a separate Bill, of which the President of the Local Government Board took charge.
³ Parliamentary Debates, H. of C. (1918), CI, 58–86.
⁴ This Act, since it applied only to those who held exemption certificates from a Local Tribunal, had little effect so far as munitions work was concerned.
increase in the rate of recruiting which took place during February and March was due to the revision of the Schedule of Protected Occupations, arrangements for which had been concluded before the Military Service Bill became law.

(e) The Revised Schedule of Protected Occupations.

The new form of the schedule came into force on 1 February, 1918. The main effect of the revision was to enable the clean cut to be carried out by raising the age at which protection of men fit for general service began to at least 23 on 1 January, 1917, the only exceptions being made in the case of certain classes of men engaged on hull construction and repair and on shale oil mining, where the age was fixed at 19. In the remaining occupations the age limit below which men might be recruited for general service varied according to the importance of the work, being fixed at the maximum military age in the least essential occupations.  

In order to obtain the protection afforded by the schedule to men above these age limits, a man medically classified Grade 1, i.e., fit for general service, had to satisfy four conditions. (1) He must be engaged on Admiralty, War Office, or munitions work, or in a railway workshop, or if not so engaged, must have enrolled as a War Munitions Volunteer. (2) He must be employed in a scheduled occupation. (3) He must, on 1 January, 1917, have attained the age set out in the schedule as governing his occupation. (4) He must have entered the scheduled occupation, not necessarily with the same employer, before 15 August, 1915, or before 1 January, 1918, in the case of certain classes of work in the aircraft industry, small arms manufacture, chemical and explosives manufacture, and the leather trade.

Much of the discussion with the trade unions concerning the schedule turned on the date of 15 August, 1915, mentioned in the last provision. Owing to the different definitions given by various unions to the term dilutee it had been decided to draw the line between men who entered the industry in question before or after a given date, and the date fixed had been 15 August, 1915, as that of national registration. The unions were anxious that the determining date should be that of the outbreak of war, but the Minister of National Service, while agreeing in principle with their arguments, considered the administrative difficulties of tracing men before any system of registration was in force made it impossible for the time being to adopt the earlier date.  

The preface to the revised schedule expressly stated that protection might be withdrawn at the discretion of the Government Department concerned from any man of military age engaged on work which could be performed by women or by men not fit for general military service or over military age. It also laid it down that if skilled artificers needed for the Army could not be supplied from other sources, men engaged in a protected occupation might be called up for military service in technical corps.  

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1 Circular M.M./130 (revised) (Hist. Rec./R/201).  
2 M.W.L.S./15335; M.S./29482/4.  
3 Circular M.M./130 (revised).
With regard to men medically classified lower than Grade 1, it was not intended that they should be recruited for the time being, unless they were required for technical corps, and it was explained that scheduled occupation certificates would be granted to such men below the age limits set out in the schedule.

(f) ARRANGEMENTS FOR RELEASE AND SUBSTITUTION.

On 31 January, the Munitions Area Dilution Officers, who had been made responsible for applying the scheme of protection and release under the original schedule, were notified of the new procedure which was about to come into force. Their instructions provided that in selecting the men to be released for military service they were to be guided by the consideration of the effect of such releases on output, and that in determining the order of release, dilutees, other things being equal, were to be taken first.¹

In order to accelerate the process of release it was decided that the method of man for man substitution hitherto in force should be abandoned. The Munitions Area Dilution Officer, having decided which men could be released from any given firm, was to notify the military authorities at once, without waiting for substitutes, save in exceptional cases.² Firms were informed early in February that if they desired to replace the men taken they must apply to the Employment Exchange, which would deal with such applications in accordance with current priority instructions.

Arrangements were made with the War Office by which, in return for the Grade 1 men released for the Army, an increased number of soldiers of lower physical category was to be made available for civil work and enrolled, if suitable, as Army Reserve Munition Workers. Vacancies created in munitions works by the withdrawal of men for military service might be filled from the pool of Army Reserve Munition Workers, but only in cases where the firm in question was granted priority by the Labour Priority Committee.³

It was thought that the release of men for the Army in advance of the provision of substitutes would make employers anxious to fill the gap and willing to accept any reasonably suitable substitute, and would thus help to solve one of the principal difficulties connected with substitution. At the end of February, by arrangement with the Ministry of National Service and Ministry of Labour, the Ministry of Munitions undertook to recognise Local Advisory Committees, recently established by the Ministry of Labour in connection with Employment Exchanges, as the bodies to which reference should be made in any cases of dispute as to the suitability of a substitute. The Munitions Area Dilution Officers, though instructed to uphold the decisions of the committees as far as possible, could if necessary refer cases for further consideration to the Ministry of Munitions.⁴

¹ M.A.D.O. Instruction No. 135A (Hist. Rec./R/324/37).
² Certain classes of men were indicated in the Schedule of Protected Occupations in the case of whom the Department concerned might require a satisfactory substitute to be provided before release was effected.
³ M.W.L.S./17969/4.
⁴ Ibid.
II. Labour's Reception of the Man Power Proposals.

(a) The General Outlook.

The discussion of the man power proposals with trade union representatives in London did not prevent serious opposition among the rank and file of the workers throughout the country. By the third week in January numerous reports were reaching the Ministry of Munitions of meetings of workers at which resolutions were passed resisting the Government's proposals and in many cases demanding that peace negotiations should be undertaken. Thus a "National Conference of Engineering Allied Trades Joint Committees," held at Leeds on 20 January, passed a resolution "absolutely rejecting the man power proposals of the Government, as in our opinion they are unnecessary." The meeting considered that peace was possible and that no further consideration should be given to the supply of more men for war purposes until a conference between the belligerents had failed to arrive at a settlement. A mass meeting of workers in the engineering and shipbuilding industries held at Barrow on the same day passed a similar resolution and decided not to accept any agreement that might be arrived at between trade union officials and the Government.\(^1\)

The shop stewards were reported to be particularly active. They were mainly responsible for the resolution passed at Leeds, while in the Sheffield district it was anticipated that they would take advantage of the man power issue to test their strength against the union executives. On 25 January, however, a meeting of the National Administrative Council of Shop Stewards and Workers Committees, having considered resolutions received from various parts of the country in favour of a national strike, decided that they were not the body to deal with technical grievances arising out of the cancellation of occupational exemptions, but that such grievances should be dealt with by the union executives. This resolution, though interpreted in some quarters as a further attempt to undermine the authority of the executives by placing on them the onus of deciding against a strike, made it improbable that there would be any general stoppage of work. The National Administrative Council could not, however, prevent local shop stewards from calling men out on strike, and in some districts there was considerable danger of local trouble.\(^2\)

(b) The Position on the Clyde.

The outlook on the Clyde was particularly ominous. Unrest over the $12\frac{1}{2}$ per cent. bonus had been especially acute in the district, the issue turning mainly on the inclusion of men on premium bonus systems, the food shortage was causing much discontent, and suspicions of profiteering were prevalent. Very little more was needed to provoke serious trouble. A meeting of the Clyde District Committee of the unions affiliated to the Federation of Engineering and Shipbuilding Trades, held at Glasgow on 13 January, had resolved to call a strike if the Government did not withdraw its man power proposals, accompanying the threat by a demand for an international conference. \(^1\)

\(^1\) M.W.L.S./15335. \(^2\) Ibid.
fortnight later a similar resolution was carried at a second meeting convened by the District Committee and addressed by Sir Auckland Geddes. About 3,000 men, representing all the industrial establishments in the neighbourhood, with the shop steward element predominating, claimed that the expressed opinion of the Glasgow workers was to do nothing in support of carrying on the war, demanded an immediate Armistice and pledged themselves to oppose to the uttermost the call for men. It seemed as though a strike on a large scale was inevitable. On 30 January, however, the District Committee of the Engineering and Shipbuilding Federation, meeting to consider what action they should take with regard to their resolution of 13 January, contented themselves with passing a further resolution in more guarded terms, stating that “they viewed with grave concern” the action of the Government in passing the Military Service Bill, and with threatening a strike unless peace negotiations were opened.

After this the opposition on the Clyde rapidly weakened. A cleavage took place between the District Committee and the extremists who composed the Clyde Workers Committee, and at numerous works in the neighbourhood groups of men pledged themselves to support the Government. Moreover, a strike could not be authorised by the District Committee of the Engineering and Shipbuilding Federation, and its action was repudiated as unconstitutional by the Executive Council. Finally, in the middle of February, the District Committee decided to take no further action.

(c) The Attitude of the A.S.E.

At the end of January it was reported that, so far as munitions and shipyard workers were concerned, opposition throughout the country was intense only among the younger members of the A.S.E.; and while workers belonging to other unions showed themselves on the whole prepared to accept the new scheme, the A.S.E. maintained their hostile attitude throughout the following two months. The society, as has been seen, had taken a separate stand by their refusal to join in the general conferences in January, and they had subsequently widened the breach by deciding to sever their connection with the Engineering and Shipbuilding Federation. The demand of the A.S.E. for separate consultation aroused strong resentment among members of other unions, many of whom declared that they would support the Government’s proposals only on condition the A.S.E.’s claim was not granted. At the first general conference on 3 January the opinion

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1 The A.S.E. were not officially represented.
2 A similar resolution had been passed at a meeting at Liverpool addressed by Sir Auckland Geddes on the previous day (27 January).
3 For the origin of this committee see Vol. IV, Part IV, Chap. VI.
4 M.W.L.S./15335.
5 Amongst other classes of labour the most serious opposition was encountered from the miners, who, in March, took a ballot vote on the question of agreeing to a proposed levy of 50,000 men, which resulted in a majority of nearly 29,000 against the levy. On 22 March, however, a conference of the Miners’ Federation agreed to advise the men not to resist the recruitment of the proposed number.
6 M.W.L.S./15335.
had been strongly expressed that in order to avoid any suspicion of special treatment, the Government should undertake not to meet separately any single union, and the Government considered themselves bound to follow this course. Moreover, it was held, both by the unions and by the Government, that even though the agreements of May, 1917, had been negotiated separately with the A.S.E., it had been made clear at the time that any further consultation on the subject of the Schedule of Protected Occupations would be with all the unions affected by the schedule.\(^1\)

Various attempts were made while the conferences were sitting to induce the A.S.E. to join the engineering group, but they would only consent to a meeting attended by representatives of other unions on condition those representatives took no part in the discussion. To this condition the other unions would not agree, and a deadlock was reached. The A.S.E. continued throughout the following month to demand a separate conference, and though their representatives took part in an inter-union conference on 19 February, at which no Government spokesman was present, they refused to modify their attitude.\(^2\)

This attitude had been defined at a joint meeting of A.S.E. delegates and district representatives held on 22 January after the delegate meeting had been in session for a week. The joint meeting unanimously resolved "That they confirm the position taken up by the delegate meeting that the new man power proposals are a violation of the May agreement and that unless the Government meet the A.S.E. in consultation, they are determined to resist any action on the part of the Government to take skilled men before the terms of the said agreement are being carried out." At the same meeting it was decided to take a ballot vote of members, to be complete by 12 February. The members were invited to state whether they were in favour of accepting the Government's man power proposals or whether they were prepared to resist them until the Government had conferred with the union representatives and arrived at an agreement. The vote was therefore to be rather on the question of separate consultation than on the acceptance of the man power proposals.\(^3\)

During the interval before the declaration of the ballot indications were not lacking of a strong feeling against the new scheme. An A.S.E. meeting at Coventry, for instance, on 27 January decided to give notice on 2 February that they would strike within 7 days unless the Military Service Bill was withdrawn.\(^4\) This threat was not carried out, and after the revised Schedule of Protected Occupations came into force on 1 February, young men belonging to the A.S.E. were reported in some districts to be coming forward voluntarily for enlistment, apparently in the hope that the first-comers would be posted to technical units.\(^5\)

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2. M.S./29482/4; Times, 20 February, 1918.
5. Ibid., M.S./29482/4.
The result of the ballot, announced on 19 February, showed a majority of 93,547 against acceptance of the man power proposals until the union’s claim to consultation should have been granted. Further delegate meetings were held to consider the position and renewed attempts were made to induce the Government to meet representatives of the society. At length, on 28 February, the Prime Minister consented to receive a deputation. Sir Auckland Geddes was also present and explained the working of the scheme in the same way as he had done at the general conferences in January. Though no explanation or assurance was given that the representatives would not have received had they taken part in the general conferences, the meeting was regarded as a concession of the union’s claim to separate treatment.¹

There were, however, two outstanding points. The A.S.E. still demanded the fulfilment of the pledge that dilutees would be removed before skilled men and they claimed that skilled men who enlisted voluntarily or were recruited should be posted only to technical units. A further meeting with the Prime Minister took place on 8 March, when it was explained to the A.S.E. representatives that youth and physical fitness must be the determining factors in selecting men for the Army, and no absolute guarantee could be given that dilutees would be taken first or that skilled men would not be required to serve in infantry units if the number of recruits needed was not otherwise forthcoming.²

The two interviews with the Prime Minister were considered by the delegate meeting to justify a fresh vote on the man power scheme, and preparations were at once made for a ballot, this time on the direct issue of accepting the scheme.³ Before the result was declared, however, the whole situation was transformed by the news of the German offensive, which began on 21 March. Before the news was received, an unofficial conference of 200 A.S.E. delegates at Manchester, on 21 March, threatened to strike on 6 April as a protest against the recruitment of young skilled men before the last dilutee of military age and fitness had been taken. This attitude found some support in other districts, but the A.S.E. leaders made it clear that the resolution was entirely unofficial, and that no precipitate action was likely. Union officials held meetings in the Manchester district and explained to the men that if the threat to strike was carried out “it would raise such a storm among the general public that the society would never get over it.” Their advice was taken and the threats of strikes ceased.⁴ The matter was finally settled by the announcement on 11 April that the second ballot had resulted in a majority of 12,318 in favour of accepting the man power scheme.

¹ At a trade union conference on 22 March a resolution, expressing regret that the Government had met the engineers separately “in violation of promises given at earlier conferences” was narrowly defeated. (M.S./29482/4.)
² M.S./29482/4.
³ Times, 13 March, 1918.
⁴ (Printed) Weekly Report, No. 135, IX (30 March, 1918); M W.L.R. 15335.
III. The Military Service (No. 2) Act, 1918.


On 23 March, two days after the German offensive began, the Minister of National Service was instructed by the Government to put forward new proposals for increasing the total amount of man power available for military purposes. The draft of a new Military Service Bill, which was accordingly prepared, was considered by a Committee of Ministers of which Sir G. Cave, the Home Secretary, was chairman,¹ and on the House reassembling on 9 April, the Bill was introduced by the Prime Minister in a speech which emphasised the critical nature of the military situation and the urgent need for the provisions contemplated.²

Under this Bill the age limits for military service were fixed at 18 and 50, both inclusive, or 55 in the case of medical practitioners or any other class of men who might be specified by Order in Council, and the Government were empowered to extend the provisions of the Act to Ireland, to direct by proclamation the cancellation of certificates of exemption other than those granted on occupational grounds, and to reconstitute and regulate the powers of military tribunals.

These provisions, particularly those relating to the military age and to the extension of compulsory service to Ireland, were of a highly controversial nature, and were hotly debated. By means of the guillotine, however, the Bill was passed through the House of Commons in seven days, and received the Royal Assent on 18 April. The reason for the haste was explained by the Minister of National Service. He believed that there was "no possibility of any sort or kind of maintaining the British Armies . . . except by adopting these proposals" and that every day's delay in getting the men required was of importance and might be of great seriousness.³

The section of the new Act which most affected the Ministry of Munitions was Section 3:

"(1) His Majesty may, by proclamation declaring that a national emergency has arisen, direct that any certificates of exemption, other than certificates expressed to be granted or renewed solely on the ground specified in paragraph (e) or on the ground specified in paragraph (d)⁴ of Sub-Section (1) of Section 2 of the Military Service Act, 1916, granted or renewed to any class or body of men specified in the proclamation, or to men of any class or description so specified, shall, as from the date specified in the proclamation, cease to have effect, and all certificates to which the proclamation applies shall as from that date cease to be in force.

¹ G./204.
² Parliamentary Debates, H. of C. (1918), CIV, 1337.
³ Parliamentary Debates, H. of C. (1918), CIV, 1591, 1592.
⁴ i.e., on grounds of ill-health or conscientious objection. Under the original proposals the Government would have had power to cancel exemptions granted on any ground, but this arrangement was modified by an amendment introduced in the committee stage.
(2) While any such proclamation remains in operation no application shall, except in so far as the proclamation provides for the making of applications in any special cases, be entertained for the grant or renewal of any certificate to which the proclamation applies, or for the grant of any certificate to which the proclamation would have applied if the certificate had been in existence at the date when the proclamation came into operation, and if any application for the grant or renewal of any such certificate is pending at that date, it shall be deemed not to have been made."

As was explained in the House, this section would enable the Government to carry the modified clean cut still further than they were empowered to do by the preceding Act, the first Order under which, cancelling occupational exemptions by age blocks in specified occupations, had been laid on the table of the House on 9 April.¹

(b) Proclamation withdrawing Exemption from Men aged 19 to 23.

Before the new Military Service Act had become law the Ministry of Munitions was informed that the Minister of National Service intended immediately to issue a proclamation withdrawing certificates of exemption from men classified Grade I or Grade II of the ages 19–23 inclusive with certain exceptions. The clean cut was not to be universal in certain special classes, such as agricultural workers and miners, and as regards munition workers it was not to apply to men in occupations for which an age limit of 19 was fixed in the Schedule of Protected Occupations, i.e., certain men engaged on hull production and repair or shale oil mining. All other munition workers who were medically classified Grade I or Category A would cease to be protected from military service² and it was proposed to issue an order cancelling protection certificates granted to such men under the Schedule of Protected Occupations. Between 40,000 and 50,000 men, in addition to the quota fixed in January, were likely to be required from munitions and shipbuilding work, and the Ministry of National Service estimated that the proclamation would provide about 3,200 men from munitions who would not otherwise be obtained.

The proposed issue of a proclamation and order was viewed with some apprehension by the Ministry of Munitions. It would involve serious interference with the existing machinery for recruiting men, which, though admittedly cumbrous and intricate, was now so well established that any wide departure from it would be likely to cause delay and confusion. Moreover, this system had, since the beginning of the German attack, been providing men at a greatly accelerated rate. The number of men released weekly had risen from about 3,700 in the week ending 22 March to nearly 9,000 in the second week

¹ Parliamentary Debates, H. of C. (1918), CIV, 1482.
² M.S./29482/17; M.W.L.S./17969/7.
of April and it was thought that the stream of men thus provided was as large as could be absorbed by the recruiting machinery of the National Service Department.

The Ministry of Munitions' advocacy of the clean cut had been contingent on reasonably long notice being given of the withdrawal of men, so that employers might have time to readjust their work, and the Department was only prepared to accept proposals involving the immediate withdrawal of men by age groups on condition that they were allowed to retain a certain discretionary power as to the protection of men of the ages affected.\(^1\)

On 19 April, the Government decided that the proclamation should be issued, and that with the exception of the classes protected at 19 in the Schedule, no Grade 1 men should be retained by firms working for the Admiralty, Ministry of Munitions or War Office Contracts Branch after 17 May in the case of those aged 19 and 20 and after 17 June in the case of those aged 21–23. Discretionary power as to the retention of men was to remain with the Admiralty and Ministry of Munitions, subject to review by a committee, on which the Department interested in the case in question would be represented.\(^2\)

The proclamation was issued on 20 April and on the 25th firms working for the Ministry of Munitions\(^3\) were notified of the new procedure. They were informed that every effort must be made to avoid any loss of output on the withdrawal of their young men, by means of substitution and rearrangement of work, but that if certain men were considered indispensable, claims for their retention would be considered by the Ministry.\(^4\)

**IV. The Imperative Claims of the Workshops.**

(a) The Safeguarding of Supply.

The Ministry of Munitions had not only to release more men for the Army, they had also to maintain, and in some cases increase, the supply of munitions. Before the need arose for accelerating the release of men for military service the field of recruiting in munitions and Admiralty work had been restricted by the claims of supply. The Admiralty, who at the time of the revision of the Schedule of Protected Occupations had agreed to release 12,500 men, had shortly afterwards claimed special immunity for firms making tubes, anchors and chain cables, and had subsequently raised difficulties as to the release of

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1 M.S./29482/17; M.W.L.S./17969/7.
2 Ibid. A decision of the War Priorities Committee on 14 June withdrew the protection thus afforded as far as men of 19 and 20 were concerned. See below, p. 33.
3 Separate instructions were sent to the iron and steel trade, in which a special recruiting scheme had been in force since February, 1918. Eleven district committees had been set up, composed of employers and workmen, with a chairman appointed by the Ministry of Munitions. The Ministry fixed the quota to be furnished from each district, employers were notified by the Munitions Area Dilution Officer of the number they were to supply, and any employer dissatisfied with his assessment could appeal to the District Committee, whose decision was final.
4 Circular M.M./188.
any of their quota. In February, the Ministry issued instructions that men were not to be withdrawn from ironstone mines, fireclay, ganister and dolomite mines or quarries, and in the middle of March firms engaged on tank production were similarly protected. When the German offensive began, the loss of matériel in France gave rise to urgent demands for certain classes of munitions, and recruiting was restricted among firms engaged on machine guns, small arms ammunition, guns, chemical shell, poison gas, and certain classes of aircraft work.¹

On 6 April, Mr. Churchill appointed a committee of the Munitions Council to consider questions raised by the release of men for the Army and to ensure that "in providing to the utmost for the needs of the Army, the machinery of supply is not deranged."

Mr. Kellaway acted as chairman of the committee, on which the War Office was represented by the Master-General of the Ordnance. The Committee submitted a report to the Minister on 18 April, in which they advocated the withdrawal of the embargo on recruiting from certain classes of munitions work, under which, they estimated, about one-third of the total number of men available were protected.² This recommendation was adopted by the Minister, who stated in the House of Commons on 25 April that

"... all the experience of the Ministry of Munitions is conclusive on the point that there should be no absolute protection for any class of supply, however important or urgent it may be. Every man should be judged on his merits as a contributor in one form or another to the one industry of the country, namely, the prosecution of the war. "It is only under the pressure of releasement that the process of dilution and of substitution can be enforced and the proper training of new workers carried out. As long as any class of manufacture or any class of supply or any firm or group of firms enjoy an arbitrary and an absolute protection—what is called a complete umbrella—there is no incentive either to the employer or the workman to adopt the necessary methods of expansion and of reform which the emergency demands from them."³

While acting on the principle that every Grade I man of the ages specified in the proclamation must be released unless an exceptionally strong case was made out for retention, the Department took the view that the releases must be systematically regulated, and that voluntary enlistment could not be permitted in the more urgent types of work. By the end of April numerous complaints were being received from firms that young men were not waiting to be called up, but were offering themselves for military service in the hope of being drafted into the Air Force or technical corps. The loss of any considerable number of men in this way was calculated both to endanger output, which was safeguarded as far as possible when men were selected by the dilution

¹ M.S./29482/14; M.C./627.
² M.C./627.
officer according to the nature and urgency of their work, and to prejudice the release of men who could otherwise be spared with comparative ease. Arrangements were accordingly made with the Ministry of National Service that men who offered themselves for enlistment from firms making specified stores of particular urgency, should only be accepted with the consent of the dilution officer.¹

Moreover, it was realised that in certain classes of munitions work the proportion of men retained must be higher than in others. For some kinds of munitions work, such as iron and steel production and ancillary industries, the production of other metals, shale oil mining, the manufacture of stampings and forgings, etc., physical fitness was almost the first essential, and there was not an adequate supply of suitable substitutes for the young men affected by the proclamation. In other cases, such as tool-room men, draftsmen and scientific instrument makers, the supply of men of the requisite skill was already less than the demand, and it was impossible to replace these men by others possessing less skill. Moreover, while a complete embargo on recruiting from any particular branch of munitions supply was not to be permitted, the urgency of the demand for items such as aero-engines, tanks and poison gas made it necessary to exercise special precautions in withdrawing men from their production.²

The question of the protection of pivotal men arose in a particularly acute form in the case of gun equipments. In many gun shops the most essential work was done by young men who had been specially trained by the firm, and apart from this the work on guns of large calibre was of so heavy a nature as to make substitution by less fit men or by women practically impossible. The Gun Manufacture Department were anxious that complete protection, at any rate for a time, should be afforded to all the men for whom firms claimed exemption, and their instructions to the firms concerned encouraged them to apply for practically all their men. As the Labour Department pointed out, this line of action was directly opposed to the general policy of not affording special treatment to any one branch of industry; but it was only after lengthy discussion that satisfactory arrangements were concluded for co-operation between the Gun Manufacture and Labour Departments in releasing men.³

It was generally recognised that if the Ministry were to meet in full the demand made on them for men, there must be some reduction in output, though it was hoped that this might be only temporary, in view of the efforts which were being made to press on dilution and substitution and to secure increased control over the distribution of labour.⁴ In the middle of May the War Office informed the Ministry that the position with regard to men was more critical than it had been at any previous stage in the war, and that they were prepared to risk delay in output in order to secure the vital requirement of sufficient men to enable the armies in France to maintain their position.⁵ In spite of this intimation, however, the Commander-in-Chief in France continued to put forward increased demands for certain classes

¹ M.S./29482/17; M.C./627. ² M.W.L.S./17969/12. ³ Ibid. ⁴ See below, p. 56. ⁵ M.C./627.
of munitions, and by the beginning of July the military authorities had definitely stated that output must be maintained and in some cases increased.¹

By the middle of July the effect of the calling up of young men on certain important classes of supply was such as to cause serious concern. The output of tanks, for instance, had fallen seriously, and that of aero-engines was only 55 per cent. of the programme arranged. The number of men released during the first six months of the year had considerably exceeded the quota fixed at the beginning of the year: nearly 120,000 men had been taken from munitions and Admiralty work,² of whom approximately 78,000 had been posted in the Army,³ and in addition 4,200 released soldiers had been returned to the Colours.⁴ The Ministry of Munitions considered that if output was to be maintained, future releases could only be effected slowly and in proportion as dilution and substitution progressed.

The issue was thus clearly defined. A choice had to be made between men and munitions.

(b) Recommendations of the War Priorities Committee.

The policy to be followed was considered by the War Priorities Committee, a committee of Ministers appointed in September, 1917, with functions which were originally confined to deciding questions of priority in connection with aircraft, but which were extended early in October to include the priority questions of all munitions programmes.⁵ To this committee the Government had referred the problems raised by the decision of 19 April that men aged 19 and 20 should not be retained on munitions or Admiralty work after 17 May, nor men of 21–23 after 17 June, subject to the exercise of discretion by the Departments concerned. On 14 June the War Priorities Committee decided that the clean cut should be universally applied to all men of 19 and 20 on Admiralty or munitions work, except the limited number protected at 19 in the Schedule of Protected Occupations, and that all such men must be released by 30 June. The committee also approved the principle of the clean cut for men aged 21–23, but directed its Permanent (Labour) Sub-Committee to consider and report on the practicability of excluding any particular occupations and providing a measure of elasticity.⁶

The Permanent (Labour) Sub-Committee had been appointed on 24 May, to deal in detail with questions of labour and with the various inter-departmental interests in relation thereto. A representative of the Ministry of National Service acted as chairman, and the Ministry of Munitions was represented by Sir Stephenson Kent.⁷

The sub-committee reported on 10 July.⁸ They had received convincing evidence that the withdrawal of men of 19 and 20 had had an appreciable effect on output, and in considering further withdrawals, they felt bound by the policy of the Government to safeguard the

development of shipbuilding and to enable the Ministry of Munitions to fulfil the requirements of the military authorities for supplies. The extent to which pivotal men were to be protected must depend on the relative importance of men and munitions, and representatives of the War Office had informed the sub-committee that the Army Council and the Supreme War Council considered it essential not only to maintain as far as possible the normal output of munitions but to increase certain items such as tanks, gun equipment and poison gas.

Having considered the possibilities of limiting protection from the clean cut to specified occupations and of calling up pivotal men by age groups, the sub-committee reached the conclusion that the only practicable way of securing the retention of men essential to production was the arrangement sanctioned in April, under which the Supply Department concerned dealt with each case on its individual merits. The sub-committee recommended that the Departments should have the right of referring doubtful cases to them for decision. They understood that some 12,000 or 13,000 claims for the protection of men aged 21–23 were under consideration by the Ministry of Munitions and some 8,000 by the Admiralty, and they judged that if the required output was to be secured, protection would have to be continued in the majority of these cases.¹

The sub-committee's report was approved by the War Priorities Committee on 12 July, the committee recording its opinion

"that no clean cut in these or any older ages is practicable, and that no further substantial number of men of these or older ages can be released en bloc from essential industries, except in the ordinary course of release by Departments, without seriously affecting the output of key industries. They accordingly submit that if the War Cabinet decide that any further substantial releases are necessary other than in the ordinary course of release by Departments, the War Cabinet should state in what respect programmes of production are to be curtailed, as it is not possible to fulfil the present programme of production and at the same time release men on a large scale for the Army."²

(c) The Position in the Autumn of 1918.

The Government accepted the principle that the clean cut of men aged 21 to 23 must be limited in its application and agreed that the Supply Departments should continue to decide claims for protection. From July onwards the rate of release of men from munitions works greatly decreased, falling from nearly 28,000 during June to rather over 3,000 during September.³ In the middle of September the Minister of National Service estimated that of the 155,000 men who had still to be recruited out of a total of 700,000 fixed in August as

¹ The Ministry of Munitions estimated that at least 10,000 claims would be granted (M.C./627).
² M.W.L.S./17969/8.
³ M.W.L.S./17969/8; (Printed) Weekly Report, No. 162, IX (5 October, 1918).
the number to be raised from all sources during 1918, not more than 7,000 men of Grade I would be supplied by the Admiralty and Ministry of Munitions.¹

Towards the end of October, the Ministry of Munitions reported² that if their output programmes were to be realised, not only would it be extremely difficult to release any further skilled men for military service, but the return of skilled men from the Army would also be necessary. In some occupations there was a serious shortage of men having the necessary degree of skill, experience, or physical strength, and though dilution and substitution had been continually extended, further progress was made extremely difficult if not impossible by the lack of suitable substitutes in civil life. Plant and machinery were standing idle for want of suitable labour, and numbers of unskilled workers who were available could not be employed for want of skilled supervisors.

Departmental arrangements had recently been concluded with the War Office and Ministry of National Service for the return of up to 500 men a month for the Admiralty and Ministry of Munitions, but the sources from which these men could be drawn were strictly limited, and the provision was quite inadequate to make good the losses caused by the operation of the clean cut and the rapid recruitment of men aged 21–23. The Government had specially sanctioned the return of a certain number of men for tank production, stampings and forgings, and blast furnace work, but this supply again was inadequate, and it was estimated that if the output of munitions was to continue on the required scale, authority must be obtained for the release from the Colours of some 7,000 men.

Thus, while the Minister of National Service was counting on obtaining 7,000 men from Admiralty and munitions work during the last three months of the year, the Ministry of Munitions claimed that the release of an equal number from the Colours was essential to the fulfilment of their programme,³ even though active steps had been taken during the last few months to secure more equal distribution of the skilled labour remaining in civil life. An account of the measures devised to this end is given in the following chapter.

¹ M.W.L.S./17969/18.
² M.W.L.S./17969/17.
³ No decision as to the return of these men had been reached when the whole position was altered by the conclusion of the Armistice.
CHAPTER IV.

LABOUR REGULATION AND UNREST, 1918.

I. Proposals for Controlling the Distribution of Skilled Labour

(a) Introductory.

Before the passing of the second Military Service Act and the conclusion of the arrangements for releasing an increased number of munition workers for the Army, the Labour Department of the Ministry of Munitions had formulated a scheme which it was hoped would facilitate the double task of providing men for military service and maintaining the production of munitions.

This task had been complicated during the past five months by the fact that the abolition of leaving certificates had deprived the Government of the power to retain any man on any given work; Labour was free to move where it pleased or to remain where it was not wanted. If, therefore, a greater number of munition workers were to be released for the Army without detriment to output, certain measures were considered essential. It would be necessary both to increase the mobility of labour and to ensure that the utmost economy was exercised in the use of skilled labour, which must be distributed where it was most needed. To secure the former end it was decided that the War Munitions Volunteer scheme should be extended and all men of suitable qualifications should be required to enrol, or, on failure to do so without sufficient reason, should become liable to military service. Economy of labour and its retention on essential work were to be secured by placing an embargo on the engagement of labour by certain firms, in accordance with powers granted to the Minister of Munitions by Defence of the Realm Regulation 8A (b), the use of which to prevent firms from poaching labour had been fore-shadowed by Mr. Churchill in the previous August, at the time of the passing of the Munitions of War Act, 1917.¹

(b) Extension of the War Munitions Volunteer Scheme.

The Ministry's proposals for securing economy and mobility of labour—the extension of the War Munitions Volunteer scheme affecting labour, and the embargo scheme affecting employers—were explained on 16 April, 1918, to the Trade Union Advisory Committee. After the Minister had made a statement on the military situation and the man power question, pointing out that the necessity for finding further men for the Army and at the same time maintaining the output of

¹ See above, p. 13.
munitions made it essential to secure increased mobility of labour and more effective substitution, Sir Stephenson Kent read an extract from a memorandum which he had submitted to the Minister outlining the Labour Department's proposals. He referred to the difficulty, which had grown since the abolition of leaving certificates and would continue to grow, of "fitting the right man into the gaps which will be created by the withdrawal of men for the Army." This difficulty, he went on to explain, could be to a large degree overcome.

"by a wide extension of the War Munitions Volunteer scheme, and in this connection it should be stated quite frankly that while industrial compulsion is not under contemplation, the complete freedom of movement which labour at present enjoys must come under review. At a moment like this, it cannot be tolerated, nor can it be the wish of any responsible body of men, that the individual who owes just as great a duty to his country, whether working in the shop or actually fighting in the trenches, should dispose of his services altogether as he may please. There can in the present grave emergency be little doubt that if the Trade Union Advisory Committee immediately lay this matter before their members, a very wide response will result. If, however, it is found that workmen who are not War Munitions Volunteers are surplus to an establishment, or their skill is not being fully utilised, or if on other general grounds, in the opinion of responsible officers, they should be transferred elsewhere, they should be required to enrol as War Munitions Volunteers. It is contemplated that if these men for some good reason could not without great personal sacrifice leave the establishment or neighbourhood in which they are engaged, they should have the right of appeal to the Labour Enlistment Complaints Committee, where their case would be heard and if good cause could be shown their enlistment could be modified so as to allow of their being transferred only within a certain district. If, however, in the view of the Labour Enlistment Complaints Committee, the man failed to show good cause why he should not enrol as a War Munitions Volunteer, he would, if of military age, be recruitable; if over military age, the firm would be instructed to dismiss him."

The discussion which followed showed that in the general opinion of the Advisory Committee action on the lines contemplated was inevitable; though certain members expressed the view that while Labour, owing to the serious military situation, would at the moment in all probability agree to any measure the Government deemed necessary, a recrudescence of unrest might be expected should the position on the Western front improve. The meeting ultimately passed two resolutions:—

"That this Committee of Trade Union Officials advising the Minister of Munitions, after hearing from Mr. Churchill a statement on the military situation and the consequent call on man power both for the Army and the munitions industry, and

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1 M.W.L.S./17969/7.
particularly the following proposals, that in order to fill the
gaps which will be created by the new and pressing call for
recruits for the Army, steps must immediately be taken by the
Government largely to increase the mobility of the men remaining
available for the munitions industry, with a view to securing
that every man is used to the best possible national purpose and
that output, so far from suffering, be actually increased in spite
of recruiting, recognise that the Government have no alternative
but immediately to prepare and submit a scheme which will
achieve these purposes."

"That this committee, while not committing itself to any
details in the proposals outlined, agrees that the present position
necessitates some such proposals being put into effect."1

The extension of the War Munitions Volunteer scheme on the lines
suggested was approved in principle by the Government on 24 April,2
and on the following day Mr. Churchill announced in the House of
Commons that an appeal was shortly to be issued urging workmen
to enrol as War Munitions Volunteers.3

Detailed procedure for carrying out the new proposals was
elaborated in consultation with the Ministry of Labour, Ministry of
National Service; and representatives of employers and labour. The
number of skilled men who could be set free for transfer by any
particular firm was to be decided by the dilution officers, whose duties
included the inspection of firms with a view to the extension of
dilution; the men thus set free would, if not already enrolled, be
asked to enrol as War Munitions Volunteers, and would then be
allocated to approved vacancies on work of national importance.
The men asked to enrol would have explained to them by a special
enrolment officer the obligations they were asked to undertake and
the privileges attaching to enrolment, and would be informed that
they might appeal, on grounds of personal hardship, to the local
Enlistment Complaints Sub-Committee. These committees would
be empowered either to reject the man's appeal, to recommend that
he should be transferred only to work in the same locality, or that
he should not be required to enrol at all. Should a man refuse to
enrol without referring his case to the Enlistment Complaints Sub-
Committee, or after his appeal had been refused by that committee,
the recruiting authorities would be informed that he might, if of
military age, be called up for military service.4 The original intention,
as explained to the Trade Union Advisory Committee, had been to
instruct employers to dismiss any men who refused to enrol, but who
were not fit for military service, but on the recommendation of the
"L" Committee of the Ministry, it was decided to confine the com-
pulsion which might be exercised under the scheme to men of military
age.5 It was proposed that men who were not eligible, by reason of

1 M.W.L.S./17969/7.
2 Ibid.
3 Parliamentary Debates, H. of C. (1918), CV, 1143.
4 M.W.L.S./17969/7.
5 M.C./627.
their occupation, for enrolment as War Munition Volunteers should, in co-operation with the Ministry of National Service, be transferred to selected vacancies as War Work Volunteers.¹

In putting forward this procedure for the approval of the Government, the Labour Department pointed out that the scheme would be workable only if it were applied equally to firms controlled by the Ministry of Munitions and the Admiralty. Hitherto, dilution on Admiralty work had proceeded at a much slower rate than on munitions work, and as a result of a Government ruling that no man should be transferred from Admiralty work without the Admiralty’s consent, the Ministry of Munitions had been unable to transfer men who in their opinion were superfluous from Admiralty work even in firms for which the Ministry were responsible. It was now urged that the whole object of the new scheme would be nullified if firms working for other Departments were to remain outside the suggested organisation, since such firms would offer a refuge to any man who was unwilling to enrol as a War Munitions Volunteer.²

The proposed procedure was approved by the Government on 23 May. The question of its application to Admiralty firms was referred to the Labour Sub-Committee of the War Priorities Committee, who recommended that the scheme should extend to marine engine shops, but not to shipyards. This recommendation was approved by the War Priorities Committee, with the proviso that the scheme should be administered in Admiralty firms by the Admiralty and in Ministry of Munitions firms by the Ministry.³

The details of the extension of the War Munitions Volunteer scheme were placed before the Trade Union Advisory Committee on 5 June. In the course of discussion on that and the following day, the members of the committee made it clear that they were prepared to assist in carrying out the proposals only on condition that workmen were granted the right of appeal to some body of trade experts against the decision that they were not required in their present employment, and that trade union representatives should also be consulted on the question of whether the work to which it was proposed to transfer each man was suitable for his particular skill. Members of the committee were, however, prepared to use their influence to induce men to enrol voluntarily as War Munitions Volunteers, and the following resolution was eventually passed:

"That we, the Trade Union Advisory Committee, having heard a statement from the Government as to the general position, earnestly appeal, in the widest possible sense, to all our members, irrespective of age, to place their services at the disposal of the State, with the least possible delay and in the largest possible numbers. The War Munitions Volunteer scheme, which was inaugurated by the trade unions of the country, enables skilled labour to do this, so that the skill of the individual workman can be used to the greatest advantage and on the most urgent work. Men in occupations which are not covered by this scheme

¹ M.W.L.S./17969/7. ² Ibid. ³ Ibid.
have an opportunity of performing a corresponding service by enrolling as War Work Volunteers. Our earnest advice to our members therefore is—Enrol at once."¹

This resolution was published in the Press on 8 June, together with a notice describing the Government’s proposals with regard both to War Munitions Volunteers and to the rationing of firms in respect of labour. As a result of this juxtaposition, an impression was created that the Advisory Committee had accepted a certain responsibility for the Government’s proposals, and at the committee’s request a further statement was published at the end of June which made it clear that the responsibility for the scheme rested entirely with the Government.²

The Labour Department was unable to accept in their entirety the suggestions of the Trade Union Advisory Committee for the association of the trade unions with the administration of the scheme, since to concede their claims would practically result in leaving the progress of dilution in the hands of the unions, and discussions with the committee had shown that the only workers they would be likely to consider redundant in any establishment would be dilutees. It was thought, however, that the committee’s views would be partly met if the unions were informed that any man required to enrol as a War Munitions Volunteer could, if he so desired, be accompanied by a trade union official when appearing before the Enlistment Complaints Sub-Committee. It was further suggested, to meet an objection raised by the Advisory Committee to the men’s representatives having no voice in deciding whether protection from military service should be withdrawn in the event of refusal to enrol, that a sub-committee of the Advisory Committee should be set up to advise the Department in cases where, prima facie, there appeared to be no justification for continuing protection.³ The Advisory Committee, however, in view of the misunderstanding which had arisen as to their connection with the Government’s proposals, preferred not to appoint such a sub-committee.⁴

At the end of June the Advisory Committee were informed that nothing in the nature of compulsion had so far had to be exercised. The response to the appeals for enrolment issued at the beginning of the month had been satisfactory, and the numbers of men who had come forward voluntarily had been sufficient up till then to meet the needs of the situation.⁵ Moreover, the military situation had improved; American troops were coming over in large numbers, and in all probability the release of men for the Army would proceed at a considerably decreased rate. It was not anticipated that the Government’s scheme for compelling men to enrol as War Munitions Volunteers need be put into operation at the time.⁶

¹ Hist. Rec./R/300/76. ² M.W.L.R./6038/47.
³ M.C./627. ⁴ M.W.L.R./6038/47.
⁵ The number of new enrolments, which had been gradually rising since the early months of 1918, reached its highest point in June. (See Appendix IV.) ⁶ M.W.L.R./6038/47.
(c) The Embargo Scheme.

The elaboration of a scheme for rationing employers in the matter of labour proceeded side by side with that for increasing the number of War Munitions Volunteers. The Ministry of Munitions had long been aware that some firms employed an undue proportion of skilled labour. It had been found that there was a wide disparity between the proportion of skilled men in firms engaged on the same product, and it was clear that many firms were using skilled labour uneconomically, while the output of essential munitions was being hampered elsewhere by the lack of skilled men for work which only they could perform. The need for some control over the distribution of skilled labour became more urgent when the abolition of leaving certificates made it possible for workmen to move from firms where their services were urgently required to firms whose need for skilled men was less, but who might offer better conditions or higher wages.¹

The danger that the poaching of labour would increase with the repeal of Section 7 had been recognised in the discussions preceding the passing of the Munitions of War Act, 1917, and the Employers' Advisory Committee had gone so far as to suggest that no firm should be allowed to engage any men in excess of the maximum number employed within six months before the passing of the Act without the consent of the Minister.² It had not been considered desirable to impose a general restriction of this kind, and it had been decided to utilise, in individual cases where action was required, the powers granted to the Minister by Defence of the Realm Regulation 8A (b) to "regulate or restrict the carrying on of work in any factory, workshop or other premises, or the engagement or employment of any workman or all or any classes of workmen therein."

In October, 1917, a circular had been issued informing firms that skilled men must not be taken on to replace unskilled or semi-skilled men nor men to replace women, and that fresh labour must only be engaged to replace wastage or to carry out an order for which additional labour was immediately required. The circular concluded with a warning that should the instructions be ignored, the Ministry would not hesitate to prohibit an employer from engaging any fresh labour without the Minister's consent.³ The powers conferred by Regulation 8A (b) had, in fact, been exercised in a few cases before the whole question was raised in April, 1918. In January, a strike had taken place of London sheet metal workers engaged in the production of aeroplanes, and when the strike was settled in February, the Ministry had decided to prohibit employers in the London area from employing, without the Minister's consent, a number of sheet metal workers in excess of the number employed by them at a given date, and from engaging such workers at time rates higher than that fixed by agreement as the recognised London rate, except in the case of a man who had

¹ Hist. Rec./R/320/32, 33. (See above, p. 12.)
² M.W.L.R./139/204.
³ Circular L./106.
previously received a higher rate.\(^1\) Action on these lines was taken in April, and in the meantime, in February, restrictions had been placed on the engagement of any male labour by Messrs. Daimler, of Coventry.\(^2\)

The Department's intention to extend this system as widely as might be necessary to secure the economical use of man power was announced on 16 April to the Trade Union Advisory Committee, as one part of the general policy of which the extension of the War Munitions Volunteer scheme was the other part, and an explanation was given of the measures which it had been decided to enforce with regard to the London sheet metal workers. The embargo side of the proposals was not, however, discussed at any length; it was in connection with War Munitions Volunteers that trouble was apprehended, and the embargo was considered to affect the employers more than the men. The proposals were not referred to the Employers' Advisory Committee, since that body's views were already known to the Department, but Sir Allan Smith, a prominent member of the committee was consulted unofficially by the Department in deciding how the embargo scheme was to be applied.\(^3\)

In the Press notice explaining the Government's proposals, which appeared on 8 June, the following reference was made to the embargo scheme:

"The present position calls . . . for fresh and sustained efforts on the part of employers. It will be necessary that all employers should review with the utmost care the present use of the man power in their employment, and place all possible facilities in the way of the Government's officers in rendering men available for transfer. It is the intention to apply extensively the existing powers under the Defence of the Realm Regulations to regulate and restrict the engagement or employment of any workman or classes of workmen in order to ensure not only a more equitable distribution of labour throughout the war industries, but a better economy of the man power remaining in the country."

The procedure decided on for the application of the scheme was as follows: On the Ministry's officers being satisfied that restrictions were necessary in the case of a particular firm or group of firms a letter was to be issued announcing that an embargo had been placed on the engagement of skilled labour. This letter might be of three kinds: a firm might be prohibited (1) from engaging any skilled labour without licence; or (2) from engaging labour which would increase the amount of skilled labour already employed; or (3) from engaging labour which would raise the number of skilled men above a specified quota. In each case a licence might be given at the time of placing the embargo or subsequently to take on specified types of labour in specified numbers.

\(^1\) M.W.L.S./17969/7.  
\(^2\) Hist. Rec./R/300/75.  
\(^3\) M.W.L.S./17969/7. Proposals were made for the formation of local Advisory Committees of employers, which should advise the local officers of the Ministry in regard to the placing of embargoes, the extension of dilution and other matters. It was thought that these committees would help to obviate the difficulty of exercising strict control over employers, by enlisting the assistance of those concerned, but the proposals were not carried into effect.
It was anticipated that embargoes would be mostly of the second and third type, which would permit firms to make good their wastage of labour. The first type of letter would be issued only to firms which had an actual excess of skilled labour over their requirements, the object in these cases being to diminish the excess by allowing wastage to continue. An embargo would not necessarily bear a penal character; it might, for instance, be placed on firms likely to attract an excess of skilled labour owing to good housing accommodation in the neighbourhood, or on firms employing a certain type of labour in a given district, in order to facilitate the control of a limited class of labour greatly in demand. An embargo might, on the other hand, be used to prevent an employer avoiding dilution by the engagement of skilled labour.

It was intended that embargoes should ultimately be placed on all firms who were known to be obtaining, for any reason, an undue proportion of skilled labour. The application of the scheme, however, was dependent upon the operations of the Ministry’s dilution staff who would have to inspect each firm and decide whether dilution conditions were satisfactory, in which case the embargo would be of the type which allowed the replacement of wastage, or whether skilled labour could be released and the firm limited to the number of hands required after the dilution recommendations had been carried out. The dilution staff was supplemented by the transfer of a certain number of engineers from other departments of the Ministry, but even so it was only possible for gradual progress to be made.

The exact form of the "embargo letters" was not settled till the end of June, but certain urgent cases were dealt with before the procedure was finally decided. In the middle of April, at the time when the necessity for making wide use of the Minister’s powers was first pointed out, restrictions were imposed on the North British Locomotive Company of Glasgow, and similar action was taken in about a dozen cases during May and the first three weeks of June. Between 25 June and 10 July nearly 70 firms in all parts of the country were placed under an embargo.

II. The Embargo Strike.

(a) Events leading up to the Strike at Coventry.

The public announcement of the Government’s scheme for increasing the mobility and controlling the distribution of labour was made, as has been seen, on 8 June. By the end of that month the military situation had appreciably improved and subsequent events justified the warning given by the Trade Union Advisory Committee that the state of feeling which made Labour willing to agree to drastic measures during a crisis would give way to renewed unrest when the military prospect became more hopeful. A strike took place, which, starting in Coventry, seemed likely at one time to spread throughout the country. Contrary to expectation, the immediate cause of the strike was the placing of an embargo, which had been considered in the light of a restriction on employers rather than on Labour. There

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1 M.W.L.S./135492/2; (Printed) Weekly Report, No. 141, IX (11 May, 1918).
2 M.C./627.
3 Hist. Rec./R/300/75.
were indications, however, that the whole of the Government’s scheme was suspected to be a first step towards the conscription of labour for industrial purposes. Thus the Leeds Chief Investigation Officer reported during the strike that “the men see behind the whole scheme an attempt at industrial conscription. There is no doubt that the scheme for the compulsory enrolment of War Munitions Volunteers is very largely responsible for the suspicion which exists on this matter.” Similarly, the objections to the embargo raised by a deputation of Manchester workers were summarised as follows:—

“(1) That the embargo is not only on the firm but on the men.
(2) That it is clearly the thin end of the wedge for industrial conscription.
(3) That it is a method to force all men to become War Munitions Volunteers.
(4) That it is taking away the liberty of the subject.”

As has been seen, an embargo had in February been placed on one Coventry firm, Messrs. Daimler, but this did not apparently cause any appreciable amount of discontent. On 1 July embargo letters were issued to three other Coventry firms—Messrs. Hotchkiss et Cie, the Siddeley Deasy Motor Company, and the Triumph Cycle Company. In each case the embargo was on the engagement of any skilled men without licence.2

On receipt of the letter, Messrs. Hotchkiss issued the following notice to their foremen:

“In accordance with instructions received from the Ministry of Munitions, we are prohibited, until further notice, from engaging skilled men of any type.

“By the term ‘skilled man’ is understood any man in receipt of at least the standard district rate. You are requested to note that any infringement of this rule renders us liable to heavy penalties under the Defence of the Realm Act, Section 8A, and every effort, therefore, must in future be exerted wherever it is necessary to employ men, to make use only of semi- or unskilled men.

“Nothing in the foregoing prohibits us from employing a skilled discharged sailor or soldier.”

This notice did not mention that a licence could be obtained to engage further skilled men, and it conveyed the impression that the Ministry’s intention was to give preferential treatment to semi-skilled and unskilled men. It was thus distinctly misleading. Although intended only as an instruction to foremen, its terms speedily became known to workmen throughout the town, and it was interpreted to mean that Messrs. Hotchkiss were absolutely prohibited from engaging any skilled men except discharged sailors or soldiers. The definition of a skilled man in the notice also gave rise to alarm, since it appeared to include dilutees in receipt of the district rate of wages.3

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1 M.W.L.R./10717/10.
2 The embargo letter is reproduced in Appendix II.
The irritation caused by this notice was increased by an incident in connection with the embargo placed on Messrs. Siddeley Deasy. Before receiving the Ministry's instructions, this firm had agreed to engage a number of skilled men, who on the morning of 3 July presented themselves at the works. The Works Manager, however, was uncertain, owing to the embargo letter, whether the men should start work or not, and though eventually all those who had been definitely engaged were given employment, a delay of some hours occurred during which the men were uncertain of their position.\footnote{Interim Report of the Committee of Inquiry on Labour Embargoes (Hist. Rec./R/320/33)}

(b) THE PROGRESS OF THE STRIKE.

On 12 July the Coventry District Engineering Joint Committee, consisting of the local officials of all the engineering unions in the neighbourhood, held a meeting to discuss the position of skilled men in view of the embargo. A representative of the Ministry attended and explained the reasons for the scheme, but did not succeed in allaying the general suspicion that it was a measure directed against the freedom of the skilled man, who was penalised in favour of the semi-skilled or unskilled man. The meeting finally passed a resolution:—

"That if the embargo is not removed by 12 noon on Monday, July 15th, the workmen concerned will hand in a week's notice."\footnote{M.W.L.R./10717/4.}

This threat was carried out and notice was handed in on 16 July, to take effect from the evening of Monday, 22 July, the men declaring that they would "cease work until the freedom of action for skilled workers in obtaining employment is restored."

During the next few days, negotiations were carried on locally between officers of the Ministry and the men's representatives, and on 19 July the executive of the A.S.E. were interviewed at the headquarters of the Ministry and were given a full explanation of the embargo scheme and the need for enforcing it. They were informed that the scheme had been applied to less than 100 firms out of 32,000 comprised in the Munitions Area Release Scheme, and that while it was intended to apply it only where need was shown, it was indispensable to proceed with it in those cases. The Executive Council declared themselves anxious to avoid any stoppage of work and undertook to urge all their members to remain at work.\footnote{Ibid.} The line of action which the Government intended to take, should other means fail, was indicated by a statement explaining the embargo which appeared in the Press on 20 July and which concluded as follows:—

"Persons . . . who incite others to cease work in these circumstances are exposing themselves to very grave responsibilities with regard to their counymen and with regard to the law. Moreover, the position of munition workers at the present time is one of exceptional privilege. It is already hard that men between 40 and 50 should be called up for the Army while so many younger men are left in the munition factories. Only the fact
that these men are absolutely needed at their work and are loyally willing to do their work has induced the nation reluctantly to put up with what is, from many other points of view, unfair."

On Sunday, 21 July, an emergency meeting of the Coventry Joint Committee agreed to recommend the members of the unions represented to suspend their notices, on condition that the Government were prepared to negotiate with local representatives of labour in the various districts concerning the administration of the embargo scheme and to hold a national conference to consider the question of the utilisation of skilled labour. To this the Ministry’s representative replied that the Government were in close touch with the responsible leaders of the trade unions and were prepared to discuss with them the administration of any scheme affecting labour. The Government’s considered policy in the matter of the embargo could not be reviewed, but the Ministry of Munitions would be prepared to discuss with properly accredited bodies both of employers and trade unions, with such additional representatives as might be thought advisable, any question, apart from the embargo, relating to the better utilisation of skilled labour.1

The Coventry Joint Committee on the following day declared themselves dissatisfied with the Ministry’s reply, but decided to recommend the suspension of notices pending a national conference of the Joint Allied Trades, to be held at an early date with the object of securing a general strike of all skilled men throughout the country.2 Members of the A.S.E. and Toolmakers’ Society in Coventry, however, decided on the 23rd to strike at once, and some 10,000 members of these two unions ceased work,3 although the Joint Committee that evening resolved that all members should remain at work pending a ballot.

On the following day 12,000 skilled men belonging to 12 societies affiliated to the Birmingham District Joint Engineering Committee also came out on strike. The Birmingham Joint Committee had on 21 July passed a resolution to the effect that they agreed entirely with the Coventry workmen and would strike on the 24th unless the embargo were removed, and when on the following day a deputation from the Joint Committee had been interviewed by local Ministry officials and had asked that an officer with plenary powers should be sent down by the Ministry to confer with representatives of the men and the employers, they, like the Coventry Committee, had been informed that negotiations would be conducted only with the accredited representatives of the unions. Birmingham, Manchester and other centres had been visited by delegates from Coventry who urged sympathetic strikes, and before any men actually ceased work the Ministry had been warned that widespread trouble was to be expected.4 In Manchester, for instance, where for some weeks past signs of unrest had been particularly noticeable in view of the comparative calm prevailing elsewhere, and where embargoes placed on

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1 M.W.L.R./10717/4. 2 Mr. Churchill’s Papers, Box 31/8; M.W.L.R./10717/4. 3 Ibid. 4 M.W.L.R./10717/4.
16 firms had since the beginning of July been causing considerable excitement, the men had given notice of their intention to cease work on 30 July.¹

On 25 July a national conference of delegates from District Joint Engineering Committees, called to discuss a general strike, opened at Leeds. By that time, though actual strikes were in progress only in Coventry and Birmingham, similar action had been threatened by workmen at Sheffield, Lincoln, Plymouth, Southampton, in the London district and elsewhere; at Leicester, some men had been out for a few hours but had gone back, while at Barrow as well as Manchester definite notice had been given that work would cease at the end of the week. The Leeds conference resolved to call a general strike for 30 July unless the embargo were removed.²

On the same day (25 July) the Trade Union Advisory Committee was summoned to a conference at headquarters. The Minister made a statement of the circumstances leading up to the strike and explained that while the Government were fully prepared if necessary to withdraw from strikers protection from military service, they were anxious that the situation should, if possible, be handled by the union officials themselves, since the strike was in defiance of their authority as well as that of the Government.³ The committee finally passed the following resolution:

"(1) That having heard the statement of the Minister of Munitions that the notice issued by a Coventry firm or firms was unofficial and wholly unauthorised, and is an inaccurate and misleading summary of the instructions issued by the Ministry of Munitions, we ask the Minister to give the widest publicity to this fact, and to give instructions to the firm or firms in question to cancel this perversion of the Government's policy.

"On the men resuming work, we request the Government to set up a Committee of Inquiry composed of representatives of the Government, of the employers and of the trade unions concerned, into the causes of the dispute.

"(2) The Government having agreed to the proposal of the Trade Union Advisory Committee, we strongly urge the men to resume immediately and continue at work."⁴

On the same day a letter was sent to Messrs. Hotchkiss emphasising the misleading nature of their notice, which they had already informed the Ministry was merely an instruction to their departmental heads, and directing that it should immediately be withdrawn. The correspondence between the Ministry and the firm was published in accordance with the recommendation of the Trade Union Advisory Committee.⁵

¹ (Printed) Weekly Report, No. 150, IX (13 July, 1918), and No. 151, IX (20 July, 1918).
² Hist. Rec./R/341/10; Mr. Churchill's Papers, Box 31/8.
³ Hist. Rec./R/341/10.
⁴ Hist. Rec./R/300/76.
⁵ Hist. Rec./R/320/33.
(c) The Return to Work.

On being informed of the Advisory Committee's resolutions the Strike Committee at Birmingham sent the following message to headquarters:

"If the Minister of Munitions will suspend the embargo for 14 days we are prepared to recommend our members to resume work immediately on being notified that this course has been adopted."

The Prime Minister then directed that the following announcement should be made:

"Certain men in the munition workshops have ceased work in disregard of their duly accredited leaders, and have remained idle against the advice of the Trade Union Advisory Committee. They have ceased work, not in pursuance of a trade dispute, but in an endeavour to force the Government to change the national policy essential to the prosecution of the war. Whilst millions of their fellow-countrymen are hourly facing danger and death for their country, the men now on strike have been granted exemption from these perils only because their services were considered of more value to the State in the workshops than in the Army.

"It is now necessary for the Government to declare that all men wilfully absent from their work on or after Monday, the 29th July, will be deemed to have voluntarily placed themselves outside the area of munitions industries. Their protection certificates will cease to have effect from that date, and they will become liable to the provisions of the Military Service Acts."

This proclamation was issued on the morning of 27 July.

A mass meeting at Birmingham on 28 July passed a resolution in favour of remaining out on strike. A meeting of the District Joint Committee on the same day, however, reversed this decision and agreed to recommend a return to work and the majority of the strikers at Birmingham resumed work on the following morning. At Coventry also many of the workers returned on the morning of the 29th and a mass meeting during the day decided in favour of a general return that night. On the same day, the national conference sitting at Leeds agreed, in view of the resumption of work at Birmingham and Coventry, not to recommend a national cessation of work and to advise affiliated members to resume or remain at work pending the report of the Committee of Inquiry proposed by the Trade Union Advisory Committee.

At Manchester, the District Committee of the A.S.E. decided to instruct their members to remain at work, but to maintain what was known as the embargo on dilution. This policy, adopted by the

1 M.W.L.R./10717/4.
3 M.W.L.R./6038/49.
4 M.W.L.R./10717/4, 10, 33.
skilled workmen in the Manchester neighbourhood at the beginning of the strike, consisted in a refusal to set up tools for or instruct any newly appointed machine operator, semi-skilled or unskilled. This line of action was not modified until the beginning of October, when the embargo on dilution was withdrawn, on the ground that the Committee of Inquiry appointed on the conclusion of the strike had submitted an interim report.\(^1\)

### III. The Committee on Labour Embargoes.

(a) **Appointment and Functions of the Committee.**

On 29 July, Mr. Churchill announced in the House that since the men were returning to work at Coventry and Birmingham, he hoped shortly to be able to announce the constitution of a Committee of Inquiry, which would have power to appoint local sub-committees to investigate conditions at first hand in areas where circumstances demanded it.\(^2\)

After consultation with the Employers' and Trade Union Advisory Committees, each of which nominated three members, the appointment of the Committee was announced on 31 July. Mr. Justice McCardie acted as chairman, the Ministry of Munitions was represented by Sir Stephenson Kent, and the Admiralty and Ministry of Labour were also represented. The terms of reference were as follows:—

"(1) To investigate and report on the labour conditions which have rendered the embargo necessary, and to advise upon the administration of the scheme.

(2) To consider and report as to what further measures should be adopted in view of these conditions, to maintain and where necessary increase the output of munitions, due regard being given to the public interest in the most effective and economical use of labour, money and material."

These terms of reference clearly suggested a wide field of enquiry, and raised questions of a general character, and in conducting their investigations the committee did not confine themselves to points directly raised by the embargo scheme, but dealt also with the causes underlying industrial unrest generally.

At the first meeting, on 2 August, the question of the appointment of local sub-committees was considered, but as the view generally taken was that there were serious objections to this course, it was decided that the committee should sit centrally and take evidence from the affected localities, subject to further consideration of the question of taking evidence locally, should necessity arise.\(^3\)

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1 M.W.L.R./10717/10; (Printed) *Weekly Report*, No. 162, IX, (5 October, 1918).
2 *Parliamentary Debates, H. of C.* (1918), CIX, 34.
3 *Hist. Rec./R/300/87.*
(b) Interim Report, September, 1918.

The committee held 20 meetings between 2 August and 3 September and heard evidence from some 70 witnesses. By 21 September they had presented an interim report, in which they reviewed the conditions which had led to the adoption of the embargo scheme, outlining the measures taken since 1915 to deal with the ever-increasing shortage of skilled labour and the circumstances in which the embargo scheme had been launched, and described the events leading up to, and the progress of, the strike. They declared themselves satisfied

"that the Government were justified in their conclusion as to the necessity for the embargo scheme. Before deciding to put it into force, the relevant facts and circumstances were considered, the questions arising with respect to the interests of workmen and employers were weighed, and attention was given to the question as to whether any practicable alternative existed which could achieve the desired object. . . . Representative witnesses, both of workmen and employers, frankly admitted the necessity for some such scheme. Their criticism went to the method of administration, and not to the necessity of the scheme."

The committee made certain criticisms of the actual terms of the embargo letter, suggesting that it would be well to make clear that the employer was not prohibited from taking into his employment men definitely engaged before receipt of the letter, and that the definition of a skilled man in the letter was used solely for the purposes of the letter, and was not intended to affect the definition of a skilled man for any other purpose. They considered that the misunderstanding at Coventry arose from the fact that the instruction to Messrs. Hotchkiss' foremen was the only information obtained by the men that the embargo was in operation at the works, and while recognising that the firm acted in good faith in issuing the notice thought it would have been better had they explained more fully the whole effect of the embargo letter.

They were impressed by the fact that in spite of the announcements made in the Press and elsewhere, the nature of and reasons for the embargo policy had not been sufficiently brought to the minds of the workmen, and while not considering that any blame attached to officials of the Ministry, thought that the actual stoppage at Coventry might have been avoided if fuller steps had been taken in June to make known the object and scope of the scheme.

The committee were of opinion, however, that the underlying causes of the strike were not to be found in the application of the embargo, or in the incidents arising therefrom. Various points were mentioned by witnesses as having contributed to the unrest which was brought to a head at Coventry, among the more important of which the following were quoted:—

"(a) That the Government action for the purpose of redeeming the pledges given with regard to the restoration of pre-war conditions has been unduly delayed.

1 Interim Report on Labour Embargoes. (Copy in Hist. Rec./R/320/33.)
(b) That a striking difference exists in many cases between the earnings of certain sections of skilled time workers and those men and women employed on systems of payment by results who entered their occupations since the beginning of the war as dilutees.

"(c) That the conditions laid down in the Munitions Acts and the Orders thereunder with respect to women's wages have not been fully observed.

"(d) Complaints were also made with respect to the recruitment and the utilisation in the Army of skilled men."

Moreover, evidence put before the committee had convinced them "that a small section of the community ... is hostile to the constitutional procedure of the trade union organisations of this country, and desires to take advantage of causes of irritation to bring about if possible a stoppage of work for other reasons than the redress of immediate grievances. The extent to which this section caused the cessation of work is a matter upon which the members of the committee differ in opinion."

While intending to submit a further report on the general causes of the dispute, the committee, in this interim report, made certain recommendations. They thought:—

"That means should be devised to provide that changes or developments in Government policy with respect to labour matters (so far as they concern munitions work) should be immediately and effectively communicated to the workmen and employers concerned, both centrally and locally, in order to secure their confidence and co-operation."

They suggested the appointment of a Joint Committee of a consultative nature, composed of a chairman appointed by the Government, of seven trade union representatives (three representatives of engineers, two of shipyard workers, one of lesser skilled trades, and one of women's organisations) and seven employers. The members of the committee, other than the chairman, should be subject to re-appointment every three months; the committee should meet weekly, and should be attended by the heads of the Labour Departments of the Admiralty and Ministry of Munitions, or by their representatives.

In accordance with these recommendations employers and workmen were asked to nominate representatives to serve on the proposed committee, the appointment of which was announced on 17 October. The committee began its duties forthwith, its terms of reference being "to consult with and advise the Admiralty and the Ministry of Munitions on such questions relating to labour as the Admiralty and Ministry of Munitions may submit for their consideration."

The Chairman of the Committee was Sir Thomas Munro.¹

¹ Times, 17 October, 1918.
IV. General Unrest.

As has been indicated, the Committee of Inquiry appointed on the conclusion of the embargo strike found that they had to go beyond the application of the embargo scheme when seeking for the ultimate cause of the dispute, and attributed the trouble at Coventry and Birmingham to the general unrest prevalent among munition workers. This unrest, which had grown in intensity as the strain of war effort and the hardships and restrictions created by the exigencies of the war made themselves more severely felt, had, as has been seen, been accentuated during the winter of 1917–18 by the claims of all classes of munition workers to share in the 12½ per cent. and 7½ per cent. awards. When that trouble was beginning to die down, a new bone of contention was found, and during the early months of 1918 the prevailing discontent had manifested itself principally in the opposition offered to the new recruiting measures, and in the demand raised in some quarters for the opening of peace negotiations. Unrest had to some extent subsided during April and May, in answer to the urgent demands from the front for men and munitions to counter Germany’s supreme effort, but with the first sign that the tide was turning in France it showed itself again, and from the middle of 1918 till the Armistice the temper of Labour, irritable, suspicious, and ready to strike on the slightest provocation, was a constant source of anxiety.

(a) Signs of Unrest.

At the beginning of July, before the trouble at Coventry had come to a head, memoranda¹ prepared by the officers of the Labour Department had shown that in their opinion the industrial situation was far from satisfactory. It was pointed out that though the immediate result of the German offensive had been to show that Labour as a whole was determined to see the war through at whatever cost, the last few weeks had seen a recrudescence of labour troubles on an increasing scale, the immediate causes of which were no doubt reaction and the belief that the worst was over in France. Discontent was manifesting itself in a variety of ways. There was clearly a growing indisposition to permit further interference with pre-war practices, showing itself principally in a determined opposition to systems of payment by results in industries such as woodworking and iron-founding and in demands for the dismissal of non-unionists. Thus the London Aircraft Committee had recently demanded, under threat of a general strike of woodworkers, that all systems of payment by results in the London district on aircraft work should be discontinued, while repeated demands at Barrow for the expulsion of non-unionists from Messrs. Vickers’ works had had to be conceded. It was also noticeable that there was a serious increase in the number of strikes for purely personal reasons, such as complaints of victimisation.

¹ M.W.L.R./26039/2.
(b) Wages Disputes.

The most fruitful cause, however, of the labour troubles in which the Ministry were concerned was undoubtedly the question of wages. As the Wages Section pointed out, the abolition of leaving certificates had restored the operation of the law of supply and demand in respect of labour, and had enabled workmen to bargain for higher wages under threat of changing their employment, at a time when the supply of labour was steadily diminishing. The resources of the trade unions were being organised to exploit the conditions created by the shortage of labour, and a general increase in wage rates was taking place in the engineering and allied trades. The rise was most marked in the case of skilled men, particularly those in pivotal occupations, or engaged on classes of work, such as aircraft, for which the demand had recently been accentuated. This state of affairs was the cause of steadily growing discontent, which was, however, not absolute but relative. The men themselves admitted the adequacy of the standard rates, supplemented by the advances given to meet the rising cost of living, but so long as certain men were able to secure from particular employers wages greatly in excess of the standard rate it was inevitable that their less fortunate fellows should employ their energies, to the detriment of output, in attempting to reach the higher level.

The incidence of wage questions as the cause of unrest is illustrated by the following figures, which show the total number of strikes which took place on munitions work in each month from May to October, 1918, the number of strikes attributed to wage questions (including demands for advances, piece work questions, terms of arbitration awards, methods of payment, etc.), and the total number of working days lost.¹

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Number of Strikes</th>
<th>Number of Wage Disputes</th>
<th>Total Working Days Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>42</td>
<td>27</td>
<td>58,756</td>
</tr>
<tr>
<td>June</td>
<td>47</td>
<td>21</td>
<td>121,642</td>
</tr>
<tr>
<td>July</td>
<td>39</td>
<td>19</td>
<td>335,903</td>
</tr>
<tr>
<td>August</td>
<td>32</td>
<td>19</td>
<td>68,010</td>
</tr>
<tr>
<td>September</td>
<td>55</td>
<td>37</td>
<td>60,828</td>
</tr>
<tr>
<td>October</td>
<td>44</td>
<td>27</td>
<td>120,786</td>
</tr>
</tbody>
</table>

(c) Unrest in the Aircraft Industry.

Generally speaking, it was among woodworkers engaged on aircraft production that unrest was most acute in 1918. The principal causes of disputes were opposition to dilution and reluctance to accept systems of payment by results,² but strikes were frequently threatened

¹ (Printed) Weekly Report, No. 145, IX (8 June, 1918); No. 149, IX (6 July, 1918); No. 154, IX (10 August, 1918); No. 158, IX (7 September, 1918); No. 162, IX (5 October, 1918); No. 167, IX (9 November, 1918).
² An account of the negotiations concerning piece work on aircraft will be found in Vol. V, Part I, pp. 141-149.
for apparently trivial reasons, and hardly a week passed without one or more stoppages of work in aircraft factories being reported. This prevalence of unrest was no doubt principally due to the fact that aircraft manufacture was a new industry which made enormous strides throughout the course of the war; the conditions of employment were not stabilised, and the management of new factories lacked experience in dealing with labour troubles. Thus the Chief Investigation Officer for the Manchester district explained the unrest in May, 1918, as follows:

"There is still a good deal of unrest in the aircraft industry, but I think the reason is that many of the employees are drawn from the building trade, who are notorious, at any rate in this district, for being exceedingly turbulent during the month of May. Another reason is that, this industry having increased since the war to such a tremendous extent, the management of these factories are often inexperienced employers and are ignorant in some cases of ordinary workshop practice. This the men realise and take advantage of."¹

No part of the country where aircraft work was in progress was free from trouble, but the districts most affected were Manchester, London and Bristol. In the Manchester neighbourhood, for instance, a succession of small strikes, sometimes lasting only half a day, took place during the spring and early summer, two firms in particular being centres of unrest—Messrs. A. V. Roe and Messrs. Crossley Motors—the second of whom managed the National Aircraft Factory at Heaton Chapel.²

Conditions in the Bristol area were almost equally serious, the position being thus described by the Chief Investigation Officer in June:

"There has been and is continual agitation and unrest among the woodworkers and the claims and counter-claims of the carpenters and joiners, the shipwrights and boat builders to various classes of aircraft work, keep the whole of those trades in a perpetual turmoil, and have a deleterious effect on output, and until these matters are settled by conference or arbitration I see no hope of better conditions or a lessening of the present inclination to strike on the slightest provocation."³

Towards the end of June a serious strike of aircraft workers began in the London district, the immediate cause of which was the dismissal by the Alliance Aeroplane Company (Messrs. Waring and Gillow) of the chairman of a shop committee, which had held a meeting on the premises against the instructions of the management. The men held that the chairman, who was a shop steward, had been victimised, and some 700 ceased work on 26 June. After negotiations between the Ministry of Munitions and the London Aircraft Committee, the latter body agreed to recommend the men to resume work on 4 July

¹ (Printed) Weekly Report, No. 141, IX (11 May, 1918).
² Discontent was especially prevalent in the national factories engaged on aircraft work (cf. Vol. VIII, Part II, Chap. VIII; Vol. XII, Part I, pp. 84–86).
³ (Printed) Weekly Report, No. 148, IX (29 June, 1918).
on condition that arbitration should take place on the following day. The workmen, however, refused to comply with the recommendation, and the trouble spread to other firms, some 26 of whom were affected. It seemed as though a general struggle was developing between the shop stewards and the constitutional union authorities, but on 10 July, after prolonged negotiations between the Ministry and representatives of the strikers, the men agreed to return to work, on the understanding that the works of the Alliance Aeroplane Company would be taken over as a national factory and that the dismissed shop steward would be reinstated, pending the result of a Government enquiry into his case. The necessity for taking over the factory was, however, obviated by a settlement subsequently reached between the firm and its employees, and approved by the Ministry, by which the firm undertook to continue to recognise shop stewards elected by the workpeople, on condition works rules were observed, and agreed to the election of a committee of shop stewards to act as the recognised channel for negotiations.1

In spite of this settlement, the aircraft industry continued to be a centre of unrest in London, as in other parts of the country. In the middle of September reports from Manchester stated that there was serious trouble among aeroplane workers and also other classes of labour, especially electricians and coal heavers, and the general position was said to be "of the utmost gravity, in so far that a general strike may take place at any moment."2 A general strike was averted, though another stoppage took place at the Heaton Chapel Aircraft Factory. Similar conditions were reported from Bristol in September, and at the beginning of October Sir Stephenson Kent gave it as his opinion that "labour unrest in this country at the present moment is more acute and more dangerous than at any period of the war."3

One more serious upheaval took place in the aircraft industry before the cessation of hostilities. At the end of October, a strike was organised in the Liverpool district, which involved several thousand aircraft, shipyard and other, wood workers. The strike arose out of objections put forward by the unions to the system of payment by results in force, with the full approval of the workers concerned, at the Aintree National Aircraft Factory. Work was resumed on 4 November, when the strike had lasted a week, the operation of the piece work system, so far as woodworkers were concerned, being temporarily suspended in the Liverpool district. The question of the introduction of payment by results on the vote of an establishment, as against the vote of a district, was left for discussion with the National Woodworkers' Aircraft Committee.4

(d) Final Report of the Committee on Labour Embargoes.

A further analysis of the causes of unrest, as manifested in the later months of 1918, was put forward by the Committee on Labour Embargoes, in their final report,5 submitted in December. The

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1 (Printed) Weekly Report, No. 148, IX (29 June, 1918); No. 149, IX (6 July, 1918); No. 150, IX (13 July, 1918); No. 154, IX (10 August, 1918).
2 Ibid., No. 159, IX (14 September, 1918).
3 M.W.L.R./26039/2.
5 Copy in Hist. Rec./R/320/33.
committee, after completing their interim report, had resumed their sittings at the end of September and continued until after the Armistice to meet and hear evidence ranging over a wide field and dealing with points affecting not only munition workers but workmen generally throughout the country.

Their final report dealt first with the matters mentioned in their interim report as underlying causes of the embargo strike. They did not, however, deal in detail with the question of women's wages, since this was being considered by a committee appointed at the end of August, of which Mr. Justice Atkin was chairman; while grievances in connection with recruitment also appeared to call for no further comment after the conclusion of hostilities.

Fuller reference was made to the outstanding question of the restoration of pre-war conditions. Here the committee took the view that while legislative measures might be necessary to redeem the Government’s pledge, the problem could only be solved by “the mutual co-operation, forbearance, and good sense of the trade unions and the employers throughout the country.” With regard to the vexed question of the disparity between the earnings of skilled time workers and less skilled workers on piece rates, the committee recorded their opinion that the whole problem, springing as it did from the special pledges and abnormal circumstances of the war, was to all intents and purposes insoluble. In this connection the committee also investigated allegations that percentage on cost contracts had had the effect of increasing inequality of earnings, but reached the conclusion that contracts of this type “had not contributed to any real extent to the widespread disparity of wages which created such a large degree of general discontent amongst munition workers at the time of our appointment.”

Coming to matters not directly brought to their notice in connection with the embargo strike, the committee reported that the principal complaints made to them during their later sittings had touched on the administration of war-time legislation, and particularly the effect of the Munitions Acts in restricting the freedom of labour, the non-observance of awards, and the working of the War Munitions Volunteer scheme. The evidence laid before them had also indicated that various other grievances brought to light by the Commission on Industrial Unrest in the previous year, in particular, excessive hours of work, bad housing conditions, high food prices and liability to income tax, still figured among the causes contributing to discontent.

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^ See above, p. 20.
CHAPTER V.

PREPARATIONS FOR DEMOBILISATION OF MUNITION WORKERS.

I. Introductory: Discharges of Munitions Labour, February, 1918.

During the last 18 months of the war, the provision which must be made for demobilising civilian workers on munitions and other war work was constantly under consideration. Before the Government’s plans for demobilisation and resettlement were ripe, however, the Ministry of Munitions found itself faced with a problem which in many respects resembled, though on a smaller scale, that which would arise on the cessation of hostilities. A reduction in the munitions programme necessitated the discharge of a considerable number of munition workers, and the Ministry was obliged to undertake an experiment in demobilisation which assumed an importance perhaps disproportionate to the number of workers affected, owing to the general tendency to look upon it as a foretaste of demobilisation as a whole.

In December, 1917, the Government had decided that owing to the urgent need of economising tonnage, imports on account of the Ministry of Munitions must be considerably reduced, and a further reduction was decided on in the following February. The consequent decrease in the supplies of raw material available made it necessary to revise the munitions programme for 1918 which had been decided on in the autumn of 1917, particularly as regards the production and filling of shell and shell components, explosives and small arms ammunition.¹

In January the Government appointed a Committee of Ministers to consider the question of unemployment arising from the restrictions imposed on industry generally by the necessity of economising tonnage,² and in the Ministry of Munitions the problem of how best to affect the necessary discharges of labour was kept steadily in view in deciding the policy to be followed in reducing output.

It was estimated that between 100,000 and 120,000 workers were likely to be dismissed in consequence of the cut in the munition programme, but a large proportion of these were expected to find other work without difficulty. About 30 per cent. of those dismissed would probably be men, but as far as they were concerned it was thought that the universal demand for male labour would obviate unemployment on any considerable scale. Numbers could be absorbed in shipyards and blast furnaces, and there was also the obvious course of accelerating the flow of men to the Colours, though it was not anticipated that a

¹ M.W.L.S./32355/3. The small arms ammunition programme was also reduced by the cessation of manufacture for Russia (M.W.L.S./32355/4).
² M.W.L.S./32355/5.
large number of men fit for general service would be set free, since dilution and the release of men for military service had already been carried far in the industries most affected by the revised programme.\(^1\) It was therefore not thought necessary to take any special steps with regard to men, and in this important respect the problem which had to be solved in the spring of 1918 differed from that which was expected to arise on the cessation of hostilities. Generally speaking it was for women only that new work had to be found during the early months of 1918, whereas in preparing for the final demobilisation provision had also to be made for men and the question had therefore to be dealt with on wider lines.

The immediate problem in connection with women was, however, sufficiently serious. With the exception of the aircraft industry, there was not likely to be a large demand for women even in the munitions trades unaffected by the cut, and though the Womens' Army Auxiliary Corps, the Land Army and similar organisations were in need of recruits, here again the demand was limited. A number of women would no doubt revert to their original occupations, but it was recognised that a certain amount of unemployment and hardship was inevitable.\(^2\)

During the first fortnight of February several cases occurred of firms which were instructed to reduce their output giving a week's notice of dismissal to all the workers concerned, but on the intervention of the Labour Department arrangements were made in most cases to spread the discharges over as long a period as possible. It was recognised that the State had certain responsibilities towards the workers and that an increased cost of production was preferable to violent displacement of labour, since it was most desirable not to discourage the spirit of energetic production and not to create unnecessary discontent.\(^3\) In the middle of February the Minister ruled that there were to be no sudden wholesale discharges, but that supply departments whose programmes were cut down were, in co-operation with the Labour Department, to arrange for the gradual reduction of staff.

Detailed instructions were subsequently issued laying down the policy to be followed by supply departments in arranging for reduced output. So far as possible, the closing of factories or dismissal of workpeople was to take place in areas where the housing problem was particularly acute in preference to other districts, and the closing of any factory at short notice was to be avoided. In arranging to reduce output, consideration was to be given to the possibilities of suspending overtime, abandoning night shifts, particularly in factories in the air raid zone, and reducing hours of work below the normal working week. The possibility of spreading deliveries over a period longer than the contract time was also to be considered.\(^4\)

Other Government Departments concerned and local officers of the Ministry were notified as far as possible in advance of the factories in which discharge would take place, and local committees were set up,

\(^1\) M.W.L.S./32355/7, 3, 4; Hist. Rec./R/350/1; Mr. Churchill's Papers, Box 31/10.
\(^2\) M.W.L.S./32355/3.
\(^3\) M.W.L.S./32355/4.
\(^4\) M.W.L.S./32355/3.
consisting of the representatives in each area of the Admiralty, Ministry of Munitions, Ministry of National Service, and Ministry of Labour, in order to ensure that the fullest use should be made of the detailed knowledge of local labour conditions possessed by these officers.\footnote{1}{M.W.L.R./6287/27; M.W.L.S./32355/5.}

Munition-making firms, also, were notified towards the end of February of the procedure to be followed in effecting discharges. They were to inform both the local Employment Exchange and the Chief Dilution Officer of the Ministry of Munitions at least 14 days in advance of the numbers of workpeople they expected to discharge, and, on notice of dismissal being given, of the names, addresses and previous occupations of the workers concerned. It was suggested that a definite order of discharge should be observed, viz.: (1) bad time-keepers; (2) those who were not originally industrial workers; (3) those who could be readily absorbed in their previous occupation, or in the staple industries of the place; (4) workers who had not served a certain length of time (to be agreed in each case), those originally brought from other districts and those making a specially heavy demand on transport service being the first to be discharged.\footnote{2}{Circular M.M./184.}

Arrangements were made in some cases for small sub-committees of the Local Advisory Committees attached to Employment Exchanges to interview groups of women and tell them of other employments open to them. Information as to openings in the Women’s Army Auxiliary Corps, Land Army, etc., was widely distributed, sometimes, as at Gretna, by means of the cinematograph and by lectures, while in centres such as Woolwich and Leeds special exhibitions of women’s work were held.\footnote{3}{M.W.L.S./32355/3.} These measures were successful in finding employment for a certain number of women, but it was noticeable that a large proportion of those discharged did not register at Employment Exchanges and thus did not avail themselves of the facilities there offered. Thus of 17,800 women discharged up to 15 March, only about 7,200 had registered at exchanges. This was no doubt partly due to the desire for a holiday, but in many cases women were not willing to be transferred to occupations for which they had no specialized training and where their earnings would be considerably lower than those they had been receiving. In the Leeds district, for instance, where there was a good deal of unemployment, the women for the most part were only willing to undertake local work and rejected openings in the clothing trades or in domestic service.\footnote{4}{Ibid.; Mr. Churchill’s Papers, Box 31/10.}

The provision made for the longest possible notice of discharge and for transfer to other work did not satisfy the claims of the women workers. Early in February, about 1,600 women who had received notice of dismissal from a small arms ammunition firm in Leeds, sent a telegram to the Ministry of Munitions asking “what steps were being taken to provide them with means to live” and demanding a minimum payment of 5s. a day while out of work.\footnote{5}{Ibid.; M.W.L.S./32355/4.} The more general demand was for a month’s full pay and for free railway passes to enable women to return to their homes. These claims were urged upon the Ministry of
Munitions by Members of Parliament and by the Women’s Trade
Union Advisory Committee. It had been recognised from the first
that there was an obligation to return women to their homes, and
Treasury sanction was received at the end of February to the issue of
free railway passes, but the demand for out of work pay was not
conceded. The question was considered by the Committee of Ministers
appointed to deal with unemployment, but they agreed that there was
no immediate need for such provision, since other branches of war
work were still open to women, many of those discharged had normally
earned little or nothing, and of the remainder the majority were
entitled to unemployment benefit of 7s. a week under the Insurance
Act. The small proportion who qualified for the benefit by registering
at Employment Exchanges was considered to be evidence that there
was little real distress. Above all, it was thought that to create such
a precedent would seriously hamper the Government in dealing with
the general problem of demobilisation. The decision was com-
municated to a meeting of Members of Parliament by Mr. Churchill in
the middle of March.

By the middle of the following month the public interest in the
question of discharges had to a large extent died down, and as the
machinery was by that time working smoothly, and arrangements had
been made to spread the dismissals over several months, it was not
anticipated that there would be any further difficulty. Moreover,
the situation had by that time been considerably eased by the increased
demand for women in munitions works to take the place of men who
were being released for the Army at an accelerated rate, in consequence
of the German offensive.

II. Administrative Machinery for Industrial Demobilisation.

(a) General Organisation.

From the spring of 1917 onwards the demobilisation of civil workers
was the subject of consideration by a special section of the machinery
set up to deal with the whole problem of reconstruction. In March,
1917, the Government appointed a Reconstruction Committee, of which
Mr. Montagu was the executive head, to take over the work of a
Committee of Ministers which had previously been considering recon-
struction questions; and among the sub-committees, of “the new
committee which were appointed to investigate special aspects of the
post-war problem was one whose function it was to deal with the
demobilisation of civil war workers.

In July, 1917, the responsibility for framing plans for the reinsta-
tement of munition workers in civil life passed to the newly appointed
Minister of Reconstruction. He was assisted in this respect by a Civil
War Workers’ Committee, which continued the enquiries begun by the
sub-committee mentioned above, and during 1918 submitted a series
of detailed recommendations.

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1 M.W.L.S./32355/3; M.W.L.R./6287/25, 27.
2 M.W.L.S./32355/4; M.W.L.R./6287/27.
3 M.W.L.S./32355/3.
4 Report of the War Cabinet for the Year 1917.
This committee met for the first time on 25 July, 1917. The chairman was Mr. Gerald Bellhouse of the Home Office, and included among the members were representatives of the Ministry of Munitions (Mr. Wolfe and Mr. Barlow), the Ministry of Labour and other Government Departments, as well as representatives of employers and Labour. Its terms of reference were as follows:—

"To consider and report upon the arrangements which should be made for the demobilisation of workers engaged during the war in National Factories, Controlled Establishments, in other firms engaged in the production of munitions of war and on Government contracts, or in firms where substitute labour has been employed for the duration of the war."

Three sub-committees were appointed to consider special points, and evidence was taken, both by the sub-committees and by the main committee, from numerous witnesses.

The Ministry of Labour, also, was intimately concerned in the arrangements for demobilising both civil workers and men serving with the forces, and in March, 1918, the Minister of Labour appointed a Labour Resettlement Committee, consisting of representatives of employers' and workmen's organisations and of Government Departments concerned, to advise him on demobilisation questions.¹

In the middle of October, 1918, when the termination of hostilities was in sight, the Minister of Reconstruction recommended that a special organisation should be set up to deal with the civil side of demobilisation, under an officer responsible to the Minister of Labour, who should be authorised to take over such sections of the staff of other Departments as he might deem necessary.² Proposals for the centralisation under the Minister of Labour of the labour functions of the Admiralty, War Office, and Ministry of Munitions had been under consideration for some time, and had been supported by the Ministry of Munitions, as a means of putting an end to the divergence of policy between the Shipyard Labour Department and the Ministry’s Labour Department.³

On 24 October the Government decided that the staff required for the work of demobilisation should be transferred to the Ministry of Labour from the other Departments concerned. Sir Stephenson Kent was appointed Director-General of Civil Demobilisation, and on 7 November the announcement was made of the transfer to the Ministry of Labour of the Labour Department of the Ministry of Munitions.

At the end of October a Cabinet Committee on Demobilisation was appointed to co-ordinate the work of demobilisation and to settle questions on behalf of the Government. General Smuts acted as Chairman of this committee until the beginning of December, when, on his resignation, the committee was dissolved, and Sir E. Geddes was placed in charge of demobilisation and the rehabilitation of industry.

¹ Report of the War Cabinet for the Year 1918.
² Hist. Rec./R/350/12.
³ Hist. Rec./R/350/23.
(b) Preparations for Demobilisation in the Ministry of Munitions.

The Ministry of Munitions being a temporary Department, whose duties in connection with the supply of military equipment would cease with the war, it was assumed during 1918 that its functions with regard to labour would also cease on the termination of hostilities and that the ultimate responsibility for the demobilisation of munition workers rested not with the Minister of Munitions but with the Ministers of Reconstruction and Labour.

The distribution of work between the Ministry of Munitions and Ministry of Reconstruction with regard to demobilisation arrangements was thus defined by Mr. Churchill in February, 1918:—

"Although the Ministry of Munitions necessarily must deal with the questions of day to day discharges and contraction in our total number of employees and must continually be studying the methods by which the situation arising on peace is to be tided over, I am of opinion that the general application of war industry to peace industry constitutes a principal part of the work of the Ministry of Reconstruction. We should supply them with the data obtained from our knowledge of the particular firms and industries under our control and with suggestions as to the alternative forms of production which can be substituted on the cessation of hostilities. But they alone can make a broad scheme." 1

The Munitions Council Committee on Demobilisation and Reconstruction, which in November, 1917, superseded a Reconstruction Committee appointed by Dr. Addison, as Minister of Munitions, in the previous April, accordingly confined itself, so far as labour matters were concerned, to collecting data for the Ministry of Reconstruction. The information supplied dealt mainly with two aspects of the demobilisation problem: (1) the extent to which firms, though employed on war work, were in effect engaged on their normal standard production, and could therefore be expected to turn over to peace industry with little dislocation; and (2) the probable state of employment at the end of the war in the metal and chemical trades, over which the Ministry of Munitions had most direct control.

With regard to the first point, information was supplied to the Demobilisation and Reconstruction Committee concerning the volume of engineering labour engaged on its normal peace-time product in two districts, Manchester and Huddersfield. In the former district not less than two-thirds of the total labour in engineering establishments was said to be engaged on its normal work; while in the latter, nearly 90 per cent. of the engineering firms were turning out what was more or less their standard product. These estimates, though representative merely of particular districts and not applicable to industry as a whole, afforded some ground for hoping that the return to peace conditions would cause less dislocation than was generally anticipated. 2

1 Report on the Work of the Munitions Council Committee on Demobilisation and Reconstruction for the Year ending 30 September, 1918. (Hist. Rec./R/264.2/3.)
2 Ibid.
With regard to the probable state of employment at the end of the war, estimates were drawn up in April, 1918, based on the latest figures of employment available, those for October, 1917. The numbers then engaged in the metal and chemical trades amounted to 2,228,000 males and 878,000 females, a total of 3,106,000, of whom about 90 per cent. were on Government work. Of this total, 1,215,000 (691,000 males and 524,000 females) were employed on destructive munitions, and the remaining 1,891,000 on products such as iron and steel, machinery, etc., which could be used or adapted for peace purposes. The actual displacement of labour at the end of the war would depend to some extent on the interpretation given to the pledge to trade unions that pre-war practices would be restored. If the pledge were rigidly carried out and all dilutees were removed, the total displacement was estimated at 1,025,000 males and 571,000 females, distributed as follows:

<table>
<thead>
<tr>
<th>Engaged on making Destructive Munitions:—</th>
<th>Males.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilutees</td>
<td>410,000</td>
<td>285,000</td>
<td>695,000</td>
</tr>
<tr>
<td>Others</td>
<td>101,000</td>
<td>174,000</td>
<td>275,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>511,000</td>
<td>459,000</td>
<td>970,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engaged on Work adaptable to Peace Purposes:—</th>
<th>Males.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilutees</td>
<td>514,000</td>
<td>112,000</td>
<td>626,000</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>1,025,000</td>
<td>571,000</td>
<td>1,596,000</td>
</tr>
</tbody>
</table>

Thus, according to this estimate,¹ about 1,000,000 persons employed on munitions proper, of whom rather more than half were males, would have to change their employment on the conclusion of hostilities; while the strict enforcement of pledges to trade unions would involve the displacement of an additional 500,000 men and 100,000 women.²

The Ministry of Munitions, though disclaiming responsibility for demobilisation as a whole, was directly concerned with certain aspects of the problem. In deciding the principles which should govern the termination of munitions contracts, for instance, it was recognised that the interests of Labour must be considered. For reasons of general policy, however, it was decided in April, 1918, with the concurrence of the Ministry of Reconstruction, that plans for terminating contracts must be framed on the broad principle that materials, manufacturing capacity, and labour should be diverted at the earliest possible moment from the production of useless munitions to peace industry. This

¹ It was recognised that this estimate, being based on 1917 figures, was only roughly applicable to conditions in 1918, since it took no account of the development in certain branches of munitions manufacture on the one hand, nor, on the other, of the numbers released for the Army, or discharged owing to the reduction in the programme.

² Hist. Rec./R/264.2/3.
interpreted in terms of contracts, meant that the manufacture of shells and shell components, trench warfare munitions, explosives, and the filling of shells, bombs, etc., would cease within two to four weeks of giving notice to terminate, while the manufacture of heavier equipment such as guns, tanks, and aeroplanes would continue on a reduced scale only so long as might be necessary to complete articles in course of manufacture which had gone too far to be scrapped. It was not, however, anticipated that all the labour engaged on the lighter forms of munitions would be thrown on the market at once, since in all probability contracts would be terminated gradually, as the military and political situation enabled supplies to be reduced.  

It also fell within the province of the Ministry, as the authority controlling essential raw materials, to deal during the continuance of the war with applications for certain facilities for post-war developments intended to tide industry as a whole over the period immediately following the cessation of hostilities, and thus to provide work for some of the munition workers who would be discharged.

III. Demobilisation Policy.

(a) Recommendations of the Civil War Workers' Committee.

The Civil War Workers' Committee submitted six reports, containing detailed recommendations, to the Minister of Reconstruction during 1918. They directed their attention primarily to the munitions industries, since they would be the most directly affected by the cessation of the war, and their investigations fell under three main heads: (1) arrangements for the release of workers from their war occupations and their resettlement in peace occupations; (2) the possibility of shortening the period of transition from war to peace conditions; and (3) additions to the existing provision for unemployment insurance, to meet exceptional unemployment caused by the dislocation of industry after the war.

The general problems in connection with the transition period and the release and resettlement of workers were reviewed in the committee's first, fourth and fifth reports.

The principal recommendations made in these three reports may be briefly summarised. The committee considered that on the conclusion of hostilities the Government should assist munition and other workers to return to their former, or to find other, employment by utilising the machinery of the Employment Exchanges, the staff of which should be considerably strengthened. The exchanges should work in conjunction with the Local Advisory Committees recently established to supplement their work and with the Labour Resettlement Committee.

1 Memorandum on the First (Interim) Report of the Civil War Workers' Committee. (Hist. Rec./R/350/5/5.)

2 Applications for materials, machine tools, etc., in connection with post-war schemes were accordingly considered and classified by the Priority Department of the Ministry during the last months of the war.

3 Copies in Hist. Rec./R/350/5/5.

4 The first report (Cd. 9117) was submitted before March, 1918, the fourth (Cd. 9192) was dated August, and the fifth (Cd. 9192) 12 September.
of the Ministry of Labour, while the industries concerned should be consulted by means of Joint Industrial Councils or other bodies representing trades. To assist the Employment Exchanges in finding suitable employment for discharged persons, a system of registration was suggested, the details of which were left to be worked out by the Ministry of Labour, while to obviate sudden dislocation a fortnight's notice to munition workers was recommended, instead of the week provided for in the Munitions of War Act, 1917. It was further suggested that subject to certain conditions, free railway passes should be issued to workers engaged away from home on munitions and other war contracts.

In order to hasten the transition from war to peace production it was suggested that Government Departments, public bodies and private employers should be encouraged to place post-war contracts in advance, at provisional prices. As an additional means of providing employment during the demobilisation period the committee recommended that the reserves of certain military stores other than armaments should be limited to such quantities that a continuance of manufacture would be necessary after the cessation of hostilities.

With regard to armaments, the committee, recognising that production might have to continue on a reduced scale during an Armistice period, recommended that in that event employment should be widely distributed by means of a short time system. If, on the other hand, large numbers of munitions workers had to be discharged at short notice, they suggested some form of financial assistance to municipalities to induce them to provide temporary employment.

The question of the relief of unemployment was also dealt with in the committee's second interim report,1 which consisted of the report of a sub-committee appointed to consider unemployment insurance. The committee reached the conclusion that the insurance of civil war workers must be treated as part of the general problem of unemployment after the war, and recommended that definite proposals for general unemployment insurance should be formulated by the Minister of Labour. Such a scheme would not, however, meet the case of acute unemployment on the cessation of hostilities, and in their fifth report the committee recommended that in that contingency the State should pay unemployment benefit on a maintenance scale. This benefit should consist of the ordinary flat rate of unemployment pay, plus a supplementary allowance, graded according to the current cost of living and the number of dependents, a provisional scale for which should be drawn up at once by the Labour Resettlement Committee.

In their third interim report2 the committee dealt with the question of a holiday for munition workers. A proposal had been made that a month's holiday on full pay at State expense should be granted, both on physiological grounds and on the ground that munition workers had been subject to special restrictions. The committee were unable to agree on this question and submitted two reports, the majority of the members considering that there was

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1 Dated 14 March, 1918 (Cd. 9192).
2 Dated 18 April, 1918 (Cd. 9192).
not a sufficiently strong case for such a concession, and the minority recommending that the holiday should be granted.¹

The committee's final report, submitted just before the Armistice, dealt mainly with clerical and commercial workers and was not concerned with munitions labour. This report was published in December,² and in a prefatory note the Minister of Reconstruction stated that the principal recommendations of the committee had been accepted by the Government.

As a result of the investigations carried out by the Ministry of Reconstruction and the Civil War Workers' Committee, the Government was prepared when the Armistice was signed with detailed plans for accelerating the change from war to peace production, by granting special facilities for obtaining materials, machine tools, etc.; for regulating the rate of discharge of workers by exercising discretion in the application of break clauses and by adopting a system of short time; and for making special provision by means of an unemployment donation for those who lost their work owing to the termination of war contracts.

(b) NOTICE TO MUNITIONS CONTRACTORS AND WORKPEOPLE,
11 NOVEMBER, 1918.

On the day the Armistice was signed, two notices³ on the subject of demobilisation were issued by the Ministry of Munitions. The one impressed upon employers the importance of giving, where possible, a fortnight's notice to Employment Exchanges of the numbers, names and previous occupations of workpeople likely to be discharged; the other was a "General Official Notice to Contractors, Sub-Contractors and Workpeople." The latter pointed out that the transformation of industry from war to peace conditions must involve the dislocation of industries and workshops, and that large numbers of workpeople would be obliged to change their employment. In order that the change might be made with the least possible hardship and the minimum of waste, exceptional arrangements were necessary and the Government intended "to recognise in these arrangements the good work which has been done by munition workers in helping to bring the war to a victorious conclusion."

The following instructions were issued to factories and firms engaged on work for the Ministry of Munitions:—

"(1) There should, so far as possible, be no immediate general discharge of munition workers.

"(2) All workers, however, who desire to withdraw from industry or to leave for any reason, and all workers who can be absorbed elsewhere, should be released at once.

¹ The decision of the Government was against the granting of a holiday. In the opinion of the Ministry of Munitions the claims of munition workers to special treatment were adequately met by the provision made for unemployment donation (see below, p. 88).
² Cd. 9228.
³ Circulars D.B./1 and 2.
"(3) Production on contracts for guns and gun ammunition, machine guns, small arms, and small arms ammunition; trench warfare mortars, bombs and stores, pyrotechnic stores; aerial bombs; all accessories of the above stores; aircraft and aero-engines and the manufacture of explosives, should be reduced in the following ways:—

"(a) All overtime should be immediately abolished.

"(b) Systems of payment by results should be temporarily suspended, provided that the customs of the trade and the expediency of the case render this possible in such cases. The customary notice of the transfer from payment by results to time work should be given.

"(c) When a transfer to time work has taken place a reduction of the hourly week should, wherever possible, be introduced. The reduction of hours will also apply to men already on time work, and in their case the customary procedure as to reduction of hours should be followed.

"(d) Whenever reduced hours are worked on a time work basis, the number of hours worked must not be less than one-half of the hours in the present normal working week of the establishment. If in any case the earnings of the workpeople for the full weekly number of hours on the short-time system fall below the following amounts:—

<table>
<thead>
<tr>
<th>Per week.</th>
<th>s.</th>
<th>d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men of 18 years and over</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>Boys under 18</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Women of 18 years and over</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Girls under 18</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>

their earnings will be made up to these sums by the employer, who will be reimbursed by the State. Where time is lost, the amounts payable will be sums proportionate to the number of hours actually worked.

"The adoption of half-time may cause unavoidable discharge, but every effort should be made to minimise unemployment, utilising employees for a short period on labouring and clearing up work. In allotting this work preference should be given to workpeople who are ordinarily dependent upon industrial employment.

"All persons discharged, or claiming release, can obtain free railway warrants for journeys from the place of employment to their homes or to places where they have found new employment. The warrants will be issued through the Employment Exchanges. In cases where large numbers are required, warrants can be obtained by the employers from the Employment Exchanges for issue at the works."
(c) The Unemployment Donation.

The Ministry’s notice to contractors and workpeople also contained an announcement of the Government’s intentions with regard to unemployment benefit. The scheme proposed was described by Dr. Addison in the House on 12 November. A measure for general insurance against unemployment, he explained, was under consideration, but this was not applicable to the immediate problem, and it had been decided to make a special non-contributory provision for all workers who might become unemployed owing to the cessation of war contracts.

The scheme was to operate for six months from an appointed date (25 November), and during that time the maximum period for which the donation would be paid would be 13 weeks. The rates were to be 24s. a week for a man and 20s. for a woman, and a man was to receive in addition 6s. a week for the first and 3s. for each successive dependent child. For boys between 15 and 18 the donation was to be 12s. a week, and for girls of the same age 10s., but this provision for juveniles was to be conditional on their attending an approved course of instruction.

While this emergency measure for non-contributory benefit was in operation, the existing compulsory unemployment insurance scheme was to remain in abeyance, so far as benefits were concerned, but contributions would still be payable in order to build up a reserve of benefit for contributors when the temporary scheme came to an end. The scheme for general contributory insurance, which was being pressed forward, would be based on permanent considerations, and would not be affected by the provisions of the non-contributory scheme.

(d) Demobilisation of War Munitions Volunteers and Army Reserve Munition Workers.

On 14 November an official statement was issued to the Press announcing that War Munitions Volunteers, War Work Volunteers, National Service Volunteers, and War Agricultural Volunteers were released from their obligations, and expressing appreciation of the services rendered by the workmen who had enrolled in any of these schemes.

The arrangements for the demobilisation of War Munitions Volunteers were announced as follows:

“War Munitions Volunteers.—These men are free from the obligations which they contracted when they enrolled and may leave the work to which they have been assigned, on giving to or receiving from their employers the customary trade notice in just the same way as any ordinary workman, subject to the conditions of the Munitions of War Act, 1917.

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1 Parliamentary Debates, H. of C. (1918), CX, 2592, 2593.
2 Circular D.B./1 (Hist. Rec./R/201).
"Where an employer wishes to retain the services of an enrolled workman and the workman wishes to remain with his employer, arrangements to this effect may, of course, be made between them. Both workmen and employers are, however, hereby notified that no further payments in respect of differences in rates of wages or subsistence or other allowances, can be made to enrolled men in respect of any period subsequent to Saturday, December 14th, 1918, or in respect of any other employment than that in which the workman is engaged at the date of this notice."

A similar notice, which appeared on 25 November,\(^1\) announced that Army Reserve Munition Workers also were free to leave the work to which they were assigned and that the conditions governing the employment of soldiers released from the Colours for civil work would cease to take effect from 14 December, on which date such men would be discharged from the Army, relegated to the Reserve, or returned to the Colours. Until that date released soldiers must remain in their existing employment, unless their transfer to other work had been authorised by the Ministry of Munitions.

### IV. Plans for Restoring Pre-War Practices and Stabilising Wages.

As has been indicated in an earlier chapter,\(^2\) one of the amendments to the Munitions of War Act, 1917, proposed by Labour had related to the fulfilment of the Government's pledge that on the cessation of hostilities the trade union practices and customs suspended in accordance with the Treasury Agreement should be restored. The clause in question was left in August, 1917, for inclusion in the further legislation which it was then intended to introduce at an early date, but as the months went by without decisive action being taken, the feeling of Labour on this subject grew steadily stronger.

The A.S.E., the union most affected, gave clear indications of their views on the matter. At meetings of their district committees throughout the country, held at various dates during the summer of 1918, resolutions were passed, copies of which were duly forwarded to the Ministry of Munitions. These resolutions were as a rule couched in the following terms:—\(^3\)

"That this committee views with concern the Minister of Munitions' indecision to redeem his promise to introduce the amending Bill to the Munitions of War Act authorising the fulfilment of pledges given in respect to the restoration of trade union rules and conditions and hereby calls upon him to prove his sincerity and good faith by bringing forward without delay this most important and necessary measure."

It was noticeable also that the delay in taking action to redeem the Government's pledge was alleged by witnesses before the Committee on Labour Embargoes to have been one of the chief underlying causes

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\(^1\) (Printed) Weekly Report, No. 169, IX (23 November, 1918).

\(^2\) p. 12.

\(^3\) M.W.L.S./7830/21.
of the strike at Coventry. The committee was unanimous in holding that the Government was bound to give legislative effect to the bargain made with Labour in the Treasury Agreement.

This question was of great importance in connection with demobilisation plans, since a rigid insistence on the exact fulfilment of the pledge, involving the dismissal of all dilutees, would increase to a considerable extent the displacement of labour, and the uncertainty prevailing during 1918 on this point complicated the task of preparing for demobilisation. Thus the Civil War Workers' Committee, when dealing with the demobilisation of women, found that it was impossible to form any accurate view of what the position would be at the end of the war until a settlement of the war pledges question had been reached, and in their fifth interim report, submitted in September, 1918, urged the desirability of legislation at the earliest possible date.

A Restoration of Pre-War Practices Bill had been drafted some weeks before this recommendation was made by a committee which included representatives of the Ministry of Munitions, Ministry of Labour, Ministry of Reconstruction and the Home Office, and the whole question received frequent consideration by the Government during the autumn, as the increasing probability that an Armistice would be concluded made a settlement more urgent. There was, however, a decided division of opinion, both as to the terms of the particular measure under consideration and as to the expediency of introducing any measure of the kind. It was urged on the one side that the Government had given pledges which they were morally bound to make good and that the delay in the matter was one of the most active causes of industrial unrest; on the other, that such a measure would destroy much of the industrial progress made during the war, and would be resisted by the majority of unskilled workers, and that responsible Labour leaders themselves recognised that the literal fulfilment of the pledge would be disastrous. Immediately before the Armistice it was decided that a Bill should not be introduced until the Prime Minister had conferred with the Labour representatives who had been parties to the Treasury Agreement.

There was another question on which consultation with Labour was considered essential. With the change over from munitions to private work the rates of wages fixed by awards and orders under the Munitions of War Acts would cease to have effect, but it was clearly desirable to safeguard Labour against a sudden drop in wages without a corresponding fall in the cost of living, and it was also of importance, from the point of view of the reconstruction of industry, that there should be a definite wage rate which could be taken as a basis for prices in new contracts. Both in the matter of the restoration of pre-war practices, however, and in that of the stabilisation of wages, employers as well as Labour were directly interested, and it was accordingly decided that the proposed conference should be with representatives of both parties.

1 Interim Report of the Committee.
2 Cd. 9192.
On 13 November the Prime Minister accompanied by Mr. Balfour, as one of the signatories to the Treasury Agreement, and by the Ministers of Reconstruction and Labour, met representatives of employers' associations and trade unions in the principal industries of the country, including besides the munitions trades and shipbuilding, the building, mining, transport, and other industries. The chair was taken by Mr. Barnes, who in opening the proceedings referred to the two urgent problems which the conference had been called together to discuss.

With regard to the restoration of pre-war practices, the Government spokesmen declared emphatically that there was no intention of repudiating the pledges that had been given; the only question was how best to fulfil them. The Prime Minister, for instance, spoke as follows:

"On that occasion (the Treasury Conference) I gave pledges specific and definite; there is absolutely no doubt about those pledges and I am here to own and to acknowledge them at the present time. You made good upon the basis of those pledges and the only question which we have to deal with to-day, when we are face to face with the probable end of the war in the next two or three months . . . . is the best method of carrying them into operation without a complete dislocation of industry, and the best method of preparation for the time when the pledges must be redeemed, because they are pledges which come due at the end of the war. Believe me, there is no question of treating them as a scrap of paper."

Mr. Lloyd George went on to read the words in the Munitions of War Act which made it obligatory for employers, in establishments to which the Act applied, to restore trade union practices suspended during the war, and explained that the greatest difficulty at the moment was in connection with certain non-munition establishments, outside the scope of the Munitions of War Acts, where the workers had agreed to the suspension of restrictive practices, but where the pledge as to restoration had not statutory force.

The war, Mr. Lloyd George pointed out, would not be over until the treaty of peace was signed, but it was "sufficiently over to make it absolutely necessary for us to face the practical question of the redemption of these pledges." The Government's immediate proposal

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1 Minutes of Proceedings in Hist. Rec./R/300/93.
2 i.e., "4 (4). The owner of the establishment shall be deemed to have entered into an undertaking to carry out the provisions set out in the Second Schedule to this Act, and any owner or contractor or sub-contractor who breaks or attempts to break such an undertaking shall be guilty of an offence under this Act.

"Schedule II, 1. Any departure during the war from the practice ruling in the workshops, shipyards, and other industries prior to the war shall only be for the period of the war.

"2. No change in practice made during the war shall be allowed to prejudice the position of the workmen in the owners' employment or of their trade unions, in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war."
was that a committee of employers’ and workmen’s representatives should be formed, who, taking the Government’s pledge as a basis, would consider the whole question and advise on the best means of fulfilling the pledge. “We have drafted our Bill,” said the Prime Minister, “we must be advised by practical men as to whether our suggestion is the best one.”

The announcement that the pledge to restore pre-war practices was to be carried out was welcomed by the Labour representatives, whose views were thus summed up by Mr. Brownlie, “We are pleased beyond doubt with the emphatic and clear declaration of the Government’s intention to honour the pledges given at the Treasury Conference.”

The proposed Advisory Committee, it was explained, was also to be asked to consider the wages question. As several speakers pointed out, it was most improbable that the cost of living would fall at once and the Government’s policy was that wages should be maintained at their existing level for at any rate six months, unless altered by agreement between the parties or by reference to an independent tribunal. The question had already been considered in detail by a committee under Sir J. Simon, and a Bill had been drafted, the provisions of which were outlined by the Minister of Labour.

After separate meetings of the employers’ and workmen’s representatives had been held, a consultative committee was appointed, in accordance with the Prime Minister’s suggestion, to which the two draft Bills were referred for consideration.

On the wages question agreement was reached at once, and a Wages Temporary Regulation Bill, introduced on 15 November, became law on 21 November. By this Act compulsory arbitration was abolished except on the question of what was the prescribed rate under the Act or whether such rate should be raised or lowered, and the right to lock-out or strike was restored. The operation of the Act was limited to six months and for that period the minimum wage generally applicable at the date of the signing of the Armistice in each trade or district to any class of work was to be maintained unless altered by agreement or by arbitration.¹

The question of the restoration of trade union practices was of a more controversial nature and the Government’s draft Bill was under consideration by the consultative committee until the spring of 1919, when a Bill was introduced into Parliament. Under the Act which was passed in the following August suspended practices were to be restored within two months and were to remain in force for a year; employers and trade unions might, however, contract out of the obligations imposed by the Act.

V. Conclusion.

The responsibilities of the Ministry of Munitions towards Labour ended with the first steps in the demobilisation of munition workers. The full effects of the Ministry’s policy had yet to work themselves out. The preceding narrative will have served to show how complex were

¹ Report of the War Cabinet for the Year 1918.
the problems for which a solution had to be improvised during the war. Control over man power developed slowly under the pressure of circumstances. Special problems at first attended any attempt to regulate labour whilst military service was still voluntary. The difficulty of turning the whole of the nation's activities to the best account was enhanced by the need for setting up new administrative machinery delicate and adaptable enough to obtain a maximum of results from human beings working under great strain. The difficulty of formulating schemes for protecting the essential worker from military service was increased by lack of full technical knowledge concerning the structure and interdependence of the country's industries. Attempts to introduce novel wage schemes and delays in dealing with the inequalities arising from changes in established labour conditions added considerably to the difficulty of controlling the inevitable tendency of wages to advance with an unprecedented demand for labour of every kind.

Such difficulties loom large in these pages; but there is no reason to suppose that, under other conditions, similar difficulties would not have arisen, and the final verdict must be sought in the undoubted achievements of the munition workers.
APPENDICES.
APPENDIX I.

(Chapter I, p. 8.)

Munitions of War Act, 1917.

[7 & 8 Geo. 5, Ch. 45.]

An Act to extend and amend the Munitions of War Acts, 1915 and 1916.

[21st August, 1917.]

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1.—(1) If at any time during the continuance of the present war the Minister of Munitions considers it necessary, in order to maintain the output of munitions, that directions should be given with respect to the remuneration to be paid for work (being munitions work or work in connection therewith or work in any controlled establishment), which at the time when the directions are given is paid at time rates, he may, subject always and without prejudice to any agreement made between employers and workmen with the consent of the Minister with respect to the remuneration of such work, by order give such directions with respect to the remuneration of such work as he may consider necessary for the purpose of the maintenance or increase of output.

(2) Any contravention of or non-compliance with any such directions shall be punishable in like manner as if the order in which the directions are contained was an award made in settlement of a difference under Part I of the Munitions of War Act, 1915, but where a difference has arisen respecting matters on which the Minister of Munitions has given directions under this section the difference shall be referred to a special arbitration tribunal constituted under section eight of the Munitions of War (Amendment) Act, 1916.

(3) Any directions given under this section may be varied from time to time, but shall not continue in force after the termination of the present war.

2. The Minister of Munitions, on being satisfied that the provisions of section seven of the Munitions of War Act, 1915, as amended by any subsequent enactment, can consistently with the national interests be repealed, may by order repeal those provisions, and thereupon the following provisions shall have effect in lieu thereof:—

(1) It shall not be lawful for a person without the consent of the Minister of Munitions to give employment to a workman who has, since the passing of this Act, been employed:—

(a) on or in connection with munitions work of a class specified in paragraph (a) of subsection (1) of section nine of the Munitions of War (Amendment) Act, 1916; or

(b) on or in connection with munitions work of any other class which may be specified in an order of the Minister of Munitions where the work on which he is to be employed is not work on or in connection with munitions work.

The consent of the Minister of Munitions for the purposes of this provision may be given either as respects an individual case or generally as respects work or workmen of any particular class or description:

(2) If any person contravenes this provision he shall be guilty of an offence, triable by a munitions tribunal of the second class, under the Munitions of War Act, 1915, unless he proves that he did not know that, and had taken all reasonable steps to ascertain whether, the workman had been so employed; but proceedings for such an offence shall not be instituted except by the Minister of Munitions or the Admiralty, or by a person acting on his or their behalf:
(3) A person guilty of such an offence shall be liable to a fine not exceeding five pounds for each day or part of a day during which the contravention continues:

(4) The purpose of ascertaining whether the provisions of this section have been contravened in any establishment shall be included amongst the purposes for which the powers of entry, examination, and enquiry conferred by section seventeen of the Munitions of War (Amendment) Act, 1916, are exercisable.

3.—(1) If the provisions of section seven of the Munitions of War Act, 1915, as amended by any subsequent enactment, are repealed by an order under this Act a contract of service between an employer and a workman employed on or in connection with munitions work shall, notwithstanding any agreement to the contrary, not be determinable by either party except by a week’s notice or on payment of a sum equal to an average week’s wages under the contract:

Provided that this section shall not apply—

(a) where under the contract a longer notice than one week is required;

(b) in the case of workmen engaged in ship-repairing, or of workmen of any class which is exempted by order of the Minister of Munitions on the ground that the circumstances of their employment were such that the provisions of this section ought not to apply to them, or of workmen whose employment is of a discontinuous or temporary nature;

(c) in the case of the termination of a contract on the ground of such misconduct on the part of either party or his agent as would justify the immediate termination of the contract by the other party.

(2) Any sum payable in lieu of notice under this section by an employer or workman shall be recoverable before a munitions tribunal of the second class, and payment of a sum adjudged to be paid by such a tribunal in such proceedings shall be enforceable in like manner as payment of a fine imposed by the tribunal.

Nothing in this section shall be construed as affecting the operation of any of the other provisions of the Munitions of War Acts, 1915 to 1917.

4. If the provisions of section seven of the Munitions of War Act, 1915, as amended by any subsequent enactment, are repealed by an order under this Act, section six of the Munitions of War (Amendment) Act, 1916, shall apply to female workers employed on or in connection with munitions work in establishments of all classes, and accordingly in that section the words “of a class to which the provisions of section seven of the principal Act, as amended by this Act, are for the time being applied by an order made thereunder” shall be repealed.

5.—(1) Where an award as to a change in the rate of wages payable to persons engaged on or in connection with munitions work, or as to hours of work or otherwise as to terms or conditions of, or affecting employment of, persons so engaged, has been made either under Part I of the Munitions of War Act, 1915, or in pursuance of an agreement between representatives of employers and workmen, and the Minister of Munitions is satisfied that the award is binding upon employers employing the majority of the persons engaged on or in connection with munitions work in any trade or branch of a trade either generally or in a particular district, the Minister of Munitions may by order direct that the award shall be binding on all or any other employers and persons so engaged, either without modifications or subject in any particular cases to such modifications contained in the direction as the Minister may consider necessary to adapt the award to the circumstances of such cases, and in particular in order that no such other employer shall be enabled to pay less wages than are payable in the like circumstances by employers who were originally bound by the award.

(2) Where any such directions are given the award shall be binding not only on the employers and persons so engaged who are affected by the award as originally made, but also, subject to such modifications (if any) as aforesaid, on the other employers and persons so engaged to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable in like manner as if the award and the order in which such directions are contained were
an award made in settlement of a difference under Part I of the Munitions of War Act, 1915, and had been made in respect of a dispute affecting such employers and persons so engaged.

6.—(1) The Minister of Labour may make regulations with respect to the reporting of differences under section one of the Munitions of War Act, 1915, and with a view to preventing undue delay in negotiations for settling such difference may by those regulations prescribe the time within which any such difference is to be reported to him.

(2) A difference may be reported under subsection (1) of section one of the Munitions of War Act, 1915, by or on behalf of any Government department; and accordingly in that subsection after the words "by or on behalf of either party to the difference" there shall be inserted the words "or by or on behalf of any Government department.

7. At the end of the First Schedule to the Munitions of War Act, 1915, the following paragraph shall be inserted:—

(4) The tribunal shall make its award without delay, and where practicable within fourteen days from the date of reference.

8.—(1) The undertaking which the owner of a controlled establishment is by virtue of subsection (4) of section four of the Munitions of War Act, 1915, deemed to have entered into shall include an undertaking that piece prices, time allowances, or bonuses on output, or the rates of prices payable under any other system of payments by results, once fixed in the establishment may not be altered except in accordance with any procedure which has been adopted by agreement between the owner of the establishment and the workmen or their representatives and is in force in the establishment at the passing of this Act or by the direction of the Minister of Munitions, which direction shall not be given except in accordance with an agreement between the owner of the establishment and the trade unions representing the workmen affected by the alteration, or failing agreement after consultation with the parties concerned:

Provided that this provision shall not apply where the alteration is made in accordance with the directions as to the rates of wages of female workers given by the Minister of Munitions under section six of the Munitions of War (Amendment) Act, 1916, nor shall this provision apply to shipbuilding yards or ship-repairing yards, but as respects such yards the Minister of Munitions or the Admiralty may make rules regulating the alteration of the rates or prices payable under systems of payments by results therein.

(2) Where an alteration of the rates or prices payable under a system of payment by results is made in accordance with the provisions of this section, paragraph seven of the Second Schedule to the Munitions of War Act, 1915, shall not apply.

9. No workman employed on or in connection with munitions work shall be discharged on the ground that he has joined or is a member of a trade union, or that he has taken part in any trade dispute, and if any employer discharges a workman on any such ground he shall be guilty of an offence triable by a munitions tribunal of the second class under the Munitions of War Act, 1915, and shall be liable to a fine not exceeding ten pounds, and the tribunal may order that the whole or any part of the fine imposed shall be paid as compensation to the workman:

Provided that nothing in this section shall prejudice any right of action for wrongful dismissal that the workman may have against his employer.

10. Proceedings against a person for contravening or failing to comply with regulations made by the Minister of Munitions under subsection (5) of section four of the Munitions of War Act, 1915, shall not be instituted except by the Minister of Munitions or the Admiralty, or by a person acting on his or their behalf.

11. Section seventeen of the Munitions of War Act, 1915, and section twenty-five of the Munitions of War (Amendment) Act, 1916, shall apply to any order or regulation made under this Act.

12. This Act may be cited as the Munitions of War Act, 1917, and shall be construed as one with the Munitions of War Acts, 1915 and 1916, and this Act and those Acts may be cited together as the Munitions of War Acts, 1915 to 1917.
APPENDIX II.

(CCHAPTER IV, p. 64.)

Extract from Letter sent to three Coventry Firms, 1 July, 1918, restricting the Engagement of Labour.

I am directed by the Minister of Munitions to enclose herewith for your information a copy of Regulation 8A of the Defence of the Realm Regulations, 1914, under which you will perceive that the Minister has power, among other things, to regulate or restrict the carrying out of any work in any factory, workshop, or other premises, or the engagement or employment of any workman or workmen, or all or any classes of workmen therein with a view to maintaining or increasing the production of munitions in other factories, workshops, or premises. You will readily appreciate that the imperative call for more men to meet the needs of the Army, taken in conjunction with the serious shortage of labour that already exists, renders it vital that the utmost possible use should be made, in the national interest, of all available labour in the country.

I am to state that the Minister, in the exercise of the power vested in him, and with a view to increasing the production of munitions in other factories, workshops, or premises where skilled labour is urgently required, has decided to issue, and hereby issues, the following directions, regulations, and restrictions in respect of your establishment, viz.:—

(1) On and after the receipt hereof, you shall not engage for employment in your establishment, without the licence of the Minister, any skilled man of any of the types set out in the schedule at the back hereof.¹

(2) If you desire to obtain a licence for the engagement or employment of any skilled man or men, of any of the types specified in the schedule, you should apply in writing to the Chief Dilution Officer for such licence, and should give full particulars of the work for which the man or men is or are needed, and such other information as the Ministry may require.

(3) The expression “skilled man” in Clauses (1) and (2) includes any skilled man of any of the types specified in the schedule at the back hereof, who receives the full district rate for the work on which he is employed.

(4) You are hereby required to comply with any directions given by any representative of the Ministry of Munitions with a view to the carrying out of this order, and in particular to produce to him your register of labour and/or form 82S, or any modification thereof, and to complete the same forthwith in case any of them is incomplete, and to give him all such information as he may require and in such form as he may require, as to the persons in your employment and to make such returns and keep such records from time to time as he may require as to such persons.

(5) Nothing herein stated shall affect the existing powers of the Minister to assign or transfer any man or men.

(6) Clause (1) of this Order shall not apply to the re-engagement of existing employees where there has been no break in the employment, nor to the engagement of discharged sailors and soldiers.

¹ The schedule contained the words “skilled labour of all types.”
APPENDIX III.

(Chapter III, p. 53.)

Statistics of Releases for Military Service under the Munitions Area Release Scheme.¹

<table>
<thead>
<tr>
<th></th>
<th>Releases.</th>
<th>Postings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917—7 May-29 December</td>
<td>67,672</td>
<td>48,644</td>
</tr>
<tr>
<td>1918—January</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>2,788</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>10,179</td>
<td>20,911</td>
</tr>
<tr>
<td>April</td>
<td>19,153</td>
<td>15,956</td>
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<tr>
<td>May</td>
<td>32,704</td>
<td>20,637</td>
</tr>
<tr>
<td>June</td>
<td>26,375</td>
<td>20,630</td>
</tr>
<tr>
<td>July</td>
<td>27,994</td>
<td>22,443</td>
</tr>
<tr>
<td>August</td>
<td>8,715²</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td></td>
<td>22,443</td>
</tr>
<tr>
<td>October</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, 1918</td>
<td>127,908</td>
<td>100,577</td>
</tr>
<tr>
<td>Grand Total</td>
<td>195,580</td>
<td>149,221</td>
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</table>

¹ M.W.L.S./17969/8 and (Printed) Weekly Report.

² Monthly figures for July-October, 1918, are not available, and the figures given for releases for the four months is less than the actual number of releases during that period, as a deduction has been made for certain releases recorded in the earlier months which were subsequently cancelled. The total for 1918 is thus that of effective releases.
## APPENDIX IV.

*(Chapter I, p. 14.)*

### Statistics of War Munitions Volunteers and Army Reserve Munition Workers.

<table>
<thead>
<tr>
<th>War Munitions Volunteers</th>
<th>Army Reserve Munition Workers</th>
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<tr>
<td>---</td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>1916</th>
<th>1916—August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>120,697</td>
<td>1,176</td>
<td>1,455</td>
<td>1,340</td>
<td>1,232</td>
<td>2,955</td>
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<tr>
<td>Total</td>
<td>14,202</td>
<td>1,248</td>
<td>1,565</td>
<td>1,076</td>
<td>1,036</td>
<td>975</td>
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<tr>
<td>Total</td>
<td>6,788</td>
<td>3,272</td>
<td>1,464</td>
<td>932</td>
<td>3,308</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>916—August</td>
<td>5,555</td>
<td>8,579</td>
<td>7,688</td>
<td>519</td>
<td>521</td>
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<tr>
<td>Total</td>
<td>9,176</td>
<td>1,352</td>
<td>4,144</td>
<td>1,565</td>
<td>1,076</td>
<td></td>
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<tr>
<td>Total</td>
<td>8,044</td>
<td>2,449</td>
<td>3,762</td>
<td>2,873</td>
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1 (Printed) *Weekly Report.* Detailed statistics of War Munition Volunteers up to July, 1916, and of Releases from the Colours prior to the inauguration of the Army Reserve Munition Workers Scheme will be found in Vol. IV, Part IV.

2 Figures of placings not available after February, 1918.

3 The figures in this column relate to recommendations made by the Ministry of Munitions, and do not include substitutes for men released for the Army. The procedure with regard to substitutes was carried out by the War Office and Employment Exchanges, the Ministry being notified of the numbers started work.
APPENDIX V.


Munitions of War Act, 1917.

Conferences, May to August, 1917:—M.W.L.R./139/9, 17, 20, 21, 22, 27, 28, 35, 36, 37, 38, 50, 56, 87, 96, 186, 227; M.W.L.S./28670; Hist. Rec./R/221.1/34, 300/89, 324/30. See also Employers’ Advisory Committee.


Munitions Acts binding on the Crown:—M.W.L.R./139/77, 126, 257;

Mr. Churchill’s Papers, Box 31/5.

A.S.E. Circular to Members, June, 1917:—M.W.L.R./139/105.

Orders necessitated by Passing of Act:—M.W.L.R./139/255.

Miscellaneous:—M.W.L.R./139/83, 156, 184, 209, 215; Mr. Churchill’s Papers, Box 31/20.

Abolition of Leaving Certificates.

Anticipated Effects:—M.W.L.R./139/30, 145, 192, 223, 252.

Trade Union Views:—M.W.L.R./6038/16, 18.


Statutory Order, Circular, etc.:—M.W.L.R./139/250; M.C./143.

Advisory and other Committees.


Trade Union Advisory Committee:—M.W.L.R./139/197; M.W.L.R./6038 and sub-numbers; Hist. Rec./R/300/76.

Women’s Trade Union Advisory Committee:—M.W.L.R./6287 and sub-numbers; Hist. Rec./R/300/78.

“L.” Committee:—Mr. Churchill’s Papers, Box 31/1.

War Priorities Committee and Labour Sub-Committee:—M.W.L.R./17969/8; M.C./705.

Other Committees:—Hist. Rec./R/342/136; Mr. Churchill’s Papers, Box 31/2; G.T./2772.

Dilution.


Policy of Ministry of Munitions and Admiralty in 1918:—G.T./4341, 4472.

War Munitions Volunteers.

Extensions of Scheme, 1917 and 1918:—M.W.L.R./5581/6; M.W.L.S./17969/7.

See also Embargo.

War Work Volunteers:—M.W.L.S./46464/2.

Man Power and Recruiting.

Reconstitution of Ministry of National Service:—C.R.V./Gen./1643; M.W.L.R./139/226; M.W.L.S./17969/3; G.T./965, 1176, 1481, 1576, 1647; G./155.


The Clean Cut:—M.W.L.S./17969/2, 10; M.S./29482/17; G.T./4854.

Conference with Employers, January, 1918:—M.W.L.S./17969/5.

Unrest, January to March, 1918:—M.W.L.R./15335; M.S./29482/4.


Shipyard Labour and Releases:—G.T./4005, 4067, 4373, 4406, 4733.

Drafts of Military Service (No. 2) Bill:—M.W.L.S./17969/14; G.T./4058, 4059, G./204.
Safeguarding of Supply:—M.S./29482/14; M.W.L.S./17969/12; G.T./5114, 5624.
Miscellaneous:—Mr. Churchill’s Papers, Box 31/1 and 2; G.T./1279, 1360, 1396, 1439, 1444, 1445, 1716, 1718, 1729, 1759, 1871, 2444, 2583, 2625, 2792, 2849, 3293, 3434, 3543, 3802, 3928, 3984, 4005, 4027, 4067, 4074, 4119, 4618.

Unrest.
Commission on Industrial Unrest:—Hist. Rec./R/300/44; M.W.L.R./4310/2, 4. Shop Stewards:—M.W.L.R./146/2, 6715; Hist. Rec./R/300/91, 99; Mr. Churchill’s Papers, Box 31/20; G.T./897, 2840.
Wages:—M.W.L.R./26099/2; G.T./2203, 2772, 3541.
Works Committees and Whitley Councils:—M.W.L.R./10717 and sub-numbers.

The Embargo.
Scope and Application of the Scheme:—M.W.L.S./17969/7, 13549, 13549/2; Hist. Rec./R/300/75, 320/32.
Conferences with Employers and Trade Unions:—M.W.L.R./5581/10, 23, 26; 6038/47, 49, 50; Hist. Rec./R/300/76, 326/9, 341/10.
The Strike:—M.W.L.R./10717 and sub-numbers.
Minutes and Reports of the Committee on Inquiry:—Hist. Rec./R/300/87, 320/33.

Demobilisation.
Discharges of February, 1918:—M.W.L.S./32355/3, 4, 5, 7; M.W.L.R./6287/25, 27; Hist. Rec./R/350/1, 12, 23; Mr. Churchill’s Papers, Box 31/10; G.T./4516.
Ministry of Munitions Demobilisation and Reconstruction Committee:—Hist. Rec./R/264.2/3, 350/2, 3, 7, 8, 9, 10, 12, 13.
Civil War Workers’ Committee:—Hist. Rec./R/350/5.
Miscellaneous:—Resettlement of Civil War Workers (Reconstruction Problems, No. 8); G.T./6041, 6047, 6277, 6277A.

General.
Reports of the War Cabinet for the years 1917 and 1918; Parliamentary Debates, 1917 and 1918; (Printed) Weekly Report of the Ministry of Munitions, 1917 and 1918; Circulars issued by the Ministry of Munitions (Hist. Rec./R/207).
Contents of Volume VI.


(Replacing Parts II and III as originally planned.)


Note.—The contents of this issue are subject to revision, and must be regarded as provisional.
HISTORY OF THE MINISTRY OF MUNITIONS.

VOLUME VI

MAN POWER AND DILUTION, 1917-18

PART I

STATISTICAL REVIEW OF MAN POWER
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CHAPTER I.

INTRODUCTORY.

During the war period 1914–1918, the main source of statistics as regards man power was provided by the Reports of the Board of Trade on the State of Employment in the United Kingdom. These reports were produced as the result of a special war inquiry into the state of employment started originally in 1914 by the Board of Trade with a view to following the course of unemployment which was then feared, and continued, as the war was prolonged, in order to provide information as regards enlistment, available man power for the engineering trades, increased employment of women, and all the many problems which developed in connection with labour. At the beginning of the war, and up to April, 1916, reports were issued every month covering all industrial occupations, with special reports from time to time on employment in other occupations, such as commerce, agriculture, transport, etc., while from April, 1916, onwards complete reports were issued regularly every quarter covering all main groups of occupations. The statistics comprised in the reports were based on the returns made by employers (Form Z8) to the Board of Trade, and, although the sample received varied considerably in different industries, it was possible to obtain a sufficiently general survey of the whole position of employment to afford valuable assistance to the several Government Departments and special committees considering the question of the man power required for military and for civilian purposes. It is unfortunate, however, from an historical point of view, that in the reports for later dates figures for earlier years have been continually revised, while in addition the classification according to trade groups has more than once been altered. For this reason it becomes almost impossible to extract historically comparable figures direct from the reports, and it has been necessary in compiling tables for the following survey to make various new estimates which, although not in strict agreement with the figures produced at the time, are, as far as possible, comparable with one another.

In addition to the Board of Trade, other Government Departments concerned with labour problems undertook statistical work on their own account, and of these the most important was the Ministry of Munitions. On the formation of this Department in 1915, one of the most immediate and difficult tasks with which it was faced was the supply of labour, and in particular of skilled men, for the munition industries. In order to obtain regular and complete information as regards employment in the government factories and the more important firms, these, as they became “controlled establishments,”

1 See Vol. IV., Part I.
were required under the Munitions of War Act to make a monthly return L.31 to the Labour Department of the Ministry of Munitions, similar to and instead of the previous return Z8 made voluntarily to the Board of Trade, the information thus obtained being supplied to that Department for inclusion in their periodic reports. Many and various other statistical investigations as regards munitions labour, taking this term in its broadest sense, were also carried out, both in connection with the actual provision of skilled labour by such schemes as releases from the colours, war munition volunteers, training, dilution, etc., and also with the protection of labour from recruiting, first by the scheme of "war service badges," and later of "protected occupations." These investigations were, however, particularly in the latter case, instigated for the most part as special ad hoc inquiries, and, as they do not provide any consecutive or comparable records for regular periods, such results as are available are quoted in the following chapters without any attempt being made to relate them either one with another, or with the statistics shown by the Board of Trade.

As regards the employment of labour on work for the Admiralty, special statistics were kept by the Shipyard Labour Department of the Admiralty of all labour employed in Admiralty firms, while, in addition, all controlled establishments, including these firms, were asked by the Labour Department of the Ministry of Munitions to state approximately the proportion of their labour engaged on Admiralty contracts. By this means it was possible to obtain some idea of the magnitude of the labour strength engaged on this class of work, but, owing to the fact that a considerable amount of labour in uncontrolled firms was also either directly or indirectly so engaged, estimates only can be made for various dates of the real total strength of Admiralty labour.

In July, 1915, the National Registration Act was passed, by which all persons, male and female, between the ages of 15 and 65, other than members of H.M. Forces, were obliged to furnish detailed information as regards their age, occupation, place of residence, etc. It was felt that the Government, in order to utilise man power to the best advantage, must know the exact extent of their resources, and it was hoped that by means of the National Registration Act they would be able to ascertain what men and women were available for different occupations and where they were to be found. The work of collecting the information required was carried out by the local authorities and involved an immense amount of labour, largely supplied by volunteers. The results, although doubtless correct in the main, tended to be inaccurate as regards detail, while the failure to keep the Register up to date made it of little use for subsequent statistical calculations.

On the formation of the Ministry of National Service at the end of 1916, entirely new statistical work was commenced as regards the whole available man power of the country, special analyses being made according to age, physical fitness, occupation, region, etc. It was, however, only during the last year of the war that these results could be regarded as reliable, and for some time this Department
mainly used, as the basis of their calculations, the figures arrived at by the Z8 inquiry of the Board of Trade.

The Department of Labour Statistics, first under the Board of Trade and later transferred to the new Ministry of Labour, continued their pre-war inquiries both into employment and unemployment, the statistical results of which were published monthly throughout the entire war period in the *Labour Gazette*.

It will be seen that during the war the responsibility for man power questions was by no means wholly in the hands of one Ministry, and that the statistical work was undertaken, therefore, by various Departments each working on their own systems devised for their own purposes. For this reason it has been found difficult in the following pages to make from the different sources of information more than a very broad survey of the main features of employment during the different years. An attempt has been made, however, to compile from the reports of the Board of Trade, which are the most comprehensive available, as complete a record as possible of numerical changes in the state of employment, the rate of enlistment, the replacement of males, the growth of female employment, the enormous expansion in employment on government work, and other abnormal effects of the war; while, where possible, any statistics collected from different Departments, which throw a light on the man power situation, and the position of munition labour in particular, are also quoted.
CHAPTER II.

THE EFFECT OF THE WAR ON MAN POWER.

I. General.

In the summer of 1914, after the declaration of war, there was a sudden wave of depression throughout industry which immediately affected employment, and which led to a fear of distress among the working classes. After a few months, however, any reduction in employment in certain industries was more than counterbalanced by the general need for fresh labour to replace those men drawn into H.M. Forces, and by the increasing demand for labour for munition work. The supply of labour, indeed, instead of being in excess of the demand, became one of the limiting factors of the nation's resources, and as the war was prolonged and man power became exhausted, there was no more vital problem than the adjustment of balance between the supply of labour available for service with H.M. Forces, for the manufacture of munitions, and for the requirements of the civilian population.

In order that the difficulties of the problem may be realised, the more important effects of the war on the state of employment throughout the United Kingdom are shown in the following tables, which have been prepared from the results obtained by the Z8 inquiry of the Board of Trade. All the main groups of occupations are covered, with the exception of agriculture in Ireland, domestic service, dressmaking in very small workrooms, a few minor forms of employment, and all persons employed at sea, whether in the mercantile marine or in the fishing industry. It should be borne in mind that the inquiry related to employed persons only, so that all employers and persons working on their own account are excluded. In addition, it should be remembered that the classification of firms into different industries is according to their main pre-war class of business and not according to the class of work to which they may have necessarily turned over owing to the needs of war. Furthermore, as the classification adopted is industrial and not occupational, each man is classified according to the main business of the firm by which he is employed, and not by his own occupation; for example, the group "Commerce" covers all persons employed by wholesale and retail dealers, whether clerks, shop assistants, or delivery men, while clerks, etc., employed by manufacturers are grouped under the particular industries in which they individually served. The samples upon which the figures are based
varyl also from being practically exhaustive in the case of Central Government and the metal and coal-mining industries to covering about 40-70 per cent. of the workpeople employed under Local Government and in other industries, and not more than 17 per cent. for commerce and 7 per cent. for agriculture. The resulting figures, therefore, are uncertain in different degrees, but are probably in the main sufficiently accurate for the present purpose.

In order to make a direct comparison between the position at the beginning and at the end of the war, figures are shown throughout for July, 1914, and July, 1918. The general position at the latter date did not differ materially from that at the actual date of the signing of the Armistice in November, and the influence of seasonal variations on small groups of industries is thus avoided. In order, however, that the exact state of employment on 11 November, 1918, and the more immediate effects of the Armistice may be studied, tables which have been taken from the Board of Trade Report on the State of Employment in the United Kingdom in April, 1919, as compared with July, 1914, and November, 1918, are subsequently shown in Chapter V.

II. Enlistment.

The most direct effect of the war on the man power situation was the outflow of civilian labour into the ranks of H.M. Forces. In the following Table I., figures are given which show the state of employment in July, 1918, as compared with the pre-war state in July, 1914, together with the number of men who enlisted during the four years.

It will be seen that the total number of men who left to join the Forces from the occupations covered by the inquiry is estimated to have amounted by July, 1918, to 4,896,000, or 46.1 per cent. of the men employed in July, 1914. It should be observed, however, that a man who was not in employment in July, 1914, and subsequently entered employment and enlisted, helps to swell the number quoted for those who joined the Forces, although he does not appear among the number employed in July, 1914. Furthermore, in considering separate industries, it should be borne in mind that a man enlisting from a certain trade group employed in a different group at the outbreak of war appears as having enlisted from the group in which he was last employed, and not from the group in which he appears in the figure for July, 1914.

The number of males estimated to have been employed in July, 1914, in the occupations covered by the Z8 inquiry, as shown in Table I., amounts to only 10,610,000. The total occupied male population as shown in the Census of Population of 1911 was approximately 14,060,000, and the Board of Trade estimates that, allowing for the natural increase of population and for emigration, this number would have increased by July, 1914, to 14,350,000, leaving a balance of 3,750,000 occupied persons not included in the occupations covered
<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>Estimated Number employed July, 1914</th>
<th>Contraction (—) or Expansion (+) since July, 1914</th>
<th>Left to join the Forces</th>
<th>Estimated Number employed July, 1914</th>
<th>Contraction (—) or Expansion (+) since July, 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industries —</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>920,000</td>
<td>-480,000</td>
<td>-52.1</td>
<td>430,000</td>
<td>46.7</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>1,266,000</td>
<td>-250,000</td>
<td>-19.7</td>
<td>448,000</td>
<td>35.3</td>
</tr>
<tr>
<td>Metal Industries</td>
<td>1,634,000</td>
<td>+190,000</td>
<td>+11.7</td>
<td>681,000</td>
<td>41.6</td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>159,000</td>
<td>+3,000</td>
<td>+2.1</td>
<td>85,000</td>
<td>53.4</td>
</tr>
<tr>
<td>Textile Industries</td>
<td>625,000</td>
<td>-214,000</td>
<td>-34.2</td>
<td>292,000</td>
<td>46.7</td>
</tr>
<tr>
<td>Clothing Industries</td>
<td>287,000</td>
<td>-104,000</td>
<td>-36.2</td>
<td>170,000</td>
<td>59.3</td>
</tr>
<tr>
<td>Food, Drink and Tobacco Industries</td>
<td>360,000</td>
<td>-117,000</td>
<td>-32.4</td>
<td>221,000</td>
<td>61.3</td>
</tr>
<tr>
<td>Paper and Printing Industries</td>
<td>261,000</td>
<td>-105,000</td>
<td>-40.4</td>
<td>135,000</td>
<td>51.8</td>
</tr>
<tr>
<td>Wood Industries</td>
<td>258,000</td>
<td>-90,000</td>
<td>-34.9</td>
<td>136,000</td>
<td>52.7</td>
</tr>
<tr>
<td>Other Industries</td>
<td>393,000</td>
<td>-140,000</td>
<td>-35.6</td>
<td>180,000</td>
<td>45.9</td>
</tr>
<tr>
<td>Total Industries (private concerns)</td>
<td>6,163,000</td>
<td>-1,307,000</td>
<td>-21.2</td>
<td>2,778,000</td>
<td>45.1</td>
</tr>
<tr>
<td>Gas, Water and Electricity Industries under Local Authorities</td>
<td>63,000</td>
<td>-11,000</td>
<td>-17.7</td>
<td>22,000</td>
<td>34.5</td>
</tr>
<tr>
<td>Government Establishments (Arsenals, Dockyards and National Factories)</td>
<td>76,000</td>
<td>+181,000</td>
<td>+237.6</td>
<td>53,000</td>
<td>69.4</td>
</tr>
<tr>
<td>Total Industries and Municipal Government Establishments</td>
<td>6,302,000</td>
<td>-1,137,000</td>
<td>-18.0</td>
<td>2,853,000</td>
<td>45.2</td>
</tr>
<tr>
<td>Agriculture in Great Britain (Permanent Labour)</td>
<td>800,000</td>
<td>-211,000</td>
<td>-26.4</td>
<td>281,000</td>
<td>35.1</td>
</tr>
</tbody>
</table>

**TABLE I.**

**STATE OF EMPLOYMENT AND ENLISTMENT IN JULY, 1918, AS COMPARED WITH JULY, 1914.**
<table>
<thead>
<tr>
<th>Occupation</th>
<th>1914</th>
<th>1918</th>
<th>1919</th>
<th>1920</th>
<th>1921</th>
<th>1922</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railways</td>
<td>660,000</td>
<td>-114,000</td>
<td>-17.3</td>
<td>183,000</td>
<td>27.7</td>
<td>12,000</td>
</tr>
<tr>
<td>Dock Wharves, etc.</td>
<td>100,000</td>
<td>-27,000</td>
<td>-26.5</td>
<td>32,000</td>
<td>31.5</td>
<td>-</td>
</tr>
<tr>
<td>Other transport under private ownership</td>
<td>344,000</td>
<td>-144,000</td>
<td>-41.9</td>
<td>189,000</td>
<td>55.1</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total Transport (excluding Municipal Tramways)</strong></td>
<td>1,104,000</td>
<td>-285,000</td>
<td>-25.8</td>
<td>404,000</td>
<td>36.6</td>
<td>17,000</td>
</tr>
<tr>
<td>Tramways under Local Authorities</td>
<td>57,000</td>
<td>-20,000</td>
<td>-35.8</td>
<td>28,000</td>
<td>50.0</td>
<td>1,200</td>
</tr>
<tr>
<td><strong>Total Transport</strong></td>
<td>1,161,000</td>
<td>-305,000</td>
<td>-26.3</td>
<td>432,000</td>
<td>37.3</td>
<td>18,200</td>
</tr>
<tr>
<td><strong>Finance and Commerce</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking and Finance</td>
<td>176,000</td>
<td>-72,000</td>
<td>-41.1</td>
<td>98,000</td>
<td>55.6</td>
<td>9,500</td>
</tr>
<tr>
<td>Commerce</td>
<td>1,225,000</td>
<td>-484,000</td>
<td>-39.5</td>
<td>784,000</td>
<td>64.0</td>
<td>496,000</td>
</tr>
<tr>
<td><strong>Total Finance and Commerce</strong></td>
<td>1,401,000</td>
<td>-556,000</td>
<td>-39.7</td>
<td>882,000</td>
<td>62.9</td>
<td>505,500</td>
</tr>
<tr>
<td>Professional Occupations (employed persons, i.e., except in the case of Hospitals, mainly Clerks)</td>
<td>127,000</td>
<td>-59,000</td>
<td>-46.3</td>
<td>80,000</td>
<td>62.6</td>
<td>50,500</td>
</tr>
<tr>
<td>Hotels, Public-houses, Cinemas, Theatres, etc.</td>
<td>199,000</td>
<td>-85,000</td>
<td>-42.7</td>
<td>129,000</td>
<td>64.7</td>
<td>181,000</td>
</tr>
<tr>
<td><strong>Civil Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Office</td>
<td>188,500</td>
<td>-80,000</td>
<td>-42.5</td>
<td>81,000</td>
<td>43.0</td>
<td>60,500</td>
</tr>
<tr>
<td>Other Civil Service</td>
<td>55,500</td>
<td>+28,000</td>
<td>+51.2</td>
<td>26,000</td>
<td>46.8</td>
<td>5,500</td>
</tr>
<tr>
<td><strong>Total Civil Service</strong></td>
<td>244,000</td>
<td>-52,000</td>
<td>-21.2</td>
<td>107,000</td>
<td>43.9</td>
<td>66,000</td>
</tr>
<tr>
<td>Local Government, including Education, but excluding Municipal Tramways, Gas, Water and Electricity</td>
<td>376,000</td>
<td>-125,000</td>
<td>-33.3</td>
<td>132,000</td>
<td>35.0</td>
<td>196,200</td>
</tr>
<tr>
<td><strong>Total for above Occupations</strong></td>
<td>1,061,000</td>
<td>-2,530,000</td>
<td>-23.8</td>
<td>4,896,000</td>
<td>46.1</td>
<td>3,276,000</td>
</tr>
</tbody>
</table>

* The percentages shown are worked on actual full figures and not on the numbers rounded to thousands as shown in the table.
by the Z8 inquiry still to be accounted for. It is estimated that about 2,150,000 were engaged as follows:

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Males Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture in Ireland</td>
<td>850,000</td>
</tr>
<tr>
<td>Mercantile Marine</td>
<td>125,000</td>
</tr>
<tr>
<td>Clergymen, physicians, literary and other professional occupations</td>
<td>270,000</td>
</tr>
<tr>
<td>Sundry minor commercial occupations</td>
<td>240,000</td>
</tr>
<tr>
<td>Costermongers, hawkers and sundry dealers</td>
<td>130,000</td>
</tr>
<tr>
<td>Domestic Service (outdoor and indoor)</td>
<td>315,000</td>
</tr>
<tr>
<td>Gardeners (except market gardeners, covered under Agriculture, in Great Britain), seedsmen and florists, etc.</td>
<td>160,000</td>
</tr>
<tr>
<td>Other occupations</td>
<td>60,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,150,000</strong></td>
</tr>
</tbody>
</table>

For one reason or another, it is probable that the enlistment from among these classes (with the exception of domestic service) was relatively small, and it may be estimated at somewhat less than half the proportion enlisted from the occupations in Table I., or, say, about 450,000, bringing the enlistment total up to 5,346,000.

There remains a further 1,600,000 males to be accounted for. The greater part of this total consists of employers and persons working on their own account, from whom enlistment must have also been small. The remainder consists of persons who, though returned as occupied in the Census, were not employed in July, 1914. Many were persons who, though in fact retired, continued to return themselves as occupied in the Census. There would, of course, be no enlistment from this class of person. Others were persons unemployed, sick, or on strike in July, 1914, and such of them as afterwards became employed, and then enlisted, will have appeared in the enlistment figures elsewhere and must not be reckoned again. The addition to be made to the enlistment figures on account of all these classes does not, therefore, represent a large percentage of the males concerned; probably not more than one-third of the percentage shown in Table I., or about 250,000 in all.

To obtain the total enlistment for the United Kingdom there remains, however, to be considered the unoccupied population. There were roughly 200,000 unoccupied males of military age in the United Kingdom in July, 1914, of whom many enlisted, and, in addition, a considerable number of boys who were at school in July, 1914, attained military age and then joined the Forces without entering any occupation. Moreover, there must have been a considerable number of men who returned from abroad and enlisted in this country. The total number of men joining the Army from these two classes was probably not far short of 250,000.

When allowance is made for all these factors, the total enlistment for the whole of the United Kingdom may be put at about 5,850,000. This estimate includes Reservists and Territorials called up at the
beginning of the war and covers the Naval as well as the Military Forces, but is exclusive of the men already serving with the Regular Forces at the outbreak of war.

It is interesting to compare this Board of Trade estimate for enlistment with figures shown in the Statistical Abstract of Information regarding the Armies at Home and Abroad. In this document monthly recruiting figures are given for enlistment into the Regular Army and the Territorial Force which amount from July, 1914, to November, 1918, at the date of the signing of the Armistice, to 4,970,000. If to this is added approximately 500,000 men called up to join the Forces from the Army Reserve, Special Reserve and the pre-war Territorial Force, it will be seen that the total number of men who left civil life in order to join the Army may be estimated at not far short of 5,500,000. Similar figures for the recruitment and mobilisation of reservists of men into the Naval Forces have, unfortunately, not been obtained, but it seems probable that the numbers would be found sufficient to prove that the Board of Trade total enlistment figure of 5,850,000 up to July, 1918, is not far from the truth.

III. Male Replacement.

(a) Inflow of Male Labour.

It will be seen that the number of males who enlisted from the occupations covered by the Z8 inquiry is estimated to have amounted to 4,896,000 compared with a contraction of only 2,530,000 in the number of males employed. This difference of 2,366,000 is accounted for by the fact that in all the main groups of employment the places of men who went on Service were taken either wholly or in part by other men, while in certain munition industries the number of fresh men drawn in was even greater than the number who enlisted. In Table II. which follows figures are given for the net replacement or displacement of males in the different industries, calculated by deducting the number of males employed in July, 1918, from the number employed in July, 1914, and subtracting the remainder from the number of men who joined the Forces.

In consequence of certain defects in the statistics it is possible that the figures for male replacement may be somewhat exaggerated. There is reason to believe that the numbers of persons employed by a good many firms which went out of existence during the early days of the war were never included in the Z8 sample, which would tend to lessen the contraction in employment. It is probable, however, that any exaggeration of the figures for employment in July, 1918, on account of this factor is more important in commercial and professional employments than in industry. In any case the large number of males drawn into the occupations covered was remarkable, and assuming that the figure of 2,366,000 is substantially correct, it is of interest to attempt to study its composition according to the analysis made by the Board of Trade.

1 No. 28—C 5—1 February, 1919.
### TABLE II.

**Replacement by Males, July, 1914–1918.**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Estimated number employed July, 1914</th>
<th>Left to join the Forces</th>
<th>Employed in July, 1918</th>
<th>Consequent net Replacement (+) or Displacement (−)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>920,000</td>
<td>430,000</td>
<td>440,000</td>
<td>− 50,000</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>1,266,000</td>
<td>448,000</td>
<td>1,016,000</td>
<td>+ 198,000</td>
</tr>
<tr>
<td>Metal Industries</td>
<td>1,634,000</td>
<td>681,000</td>
<td>1,824,000</td>
<td>+ 871,000</td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>159,000</td>
<td>85,000</td>
<td>162,000</td>
<td>+ 88,000</td>
</tr>
<tr>
<td>Textile Industries</td>
<td>625,000</td>
<td>292,000</td>
<td>411,000</td>
<td>+ 78,000</td>
</tr>
<tr>
<td>Clothing Industries</td>
<td>287,000</td>
<td>170,000</td>
<td>183,000</td>
<td>+ 66,000</td>
</tr>
<tr>
<td>Food and Drink and Tobacco</td>
<td>360,000</td>
<td>221,000</td>
<td>243,000</td>
<td>+ 104,000</td>
</tr>
<tr>
<td>Industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper and Printing Industries</td>
<td>261,000</td>
<td>135,000</td>
<td>156,000</td>
<td>+ 30,000</td>
</tr>
<tr>
<td>Wood Industries</td>
<td>258,000</td>
<td>136,000</td>
<td>168,000</td>
<td>+ 46,000</td>
</tr>
<tr>
<td>Other Industries</td>
<td>393,000</td>
<td>180,000</td>
<td>253,000</td>
<td>+ 40,000</td>
</tr>
<tr>
<td><strong>Total Industries</strong></td>
<td>6,163,000</td>
<td>2,778,000</td>
<td>4,856,000</td>
<td>+1,471,000</td>
</tr>
<tr>
<td>Gas, Water and Electricity</td>
<td>63,000</td>
<td>22,000</td>
<td>52,000</td>
<td>+ 11,000</td>
</tr>
<tr>
<td>under Local Authorities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Establishments</td>
<td>76,000</td>
<td>53,000</td>
<td>257,000</td>
<td>+ 234,000</td>
</tr>
<tr>
<td>Total Industries and Municipal</td>
<td>6,302,000</td>
<td>2,853,000</td>
<td>5,165,000</td>
<td>+1,716,000</td>
</tr>
<tr>
<td>and Government Establishments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture (Permanent Labour)</td>
<td>800,000</td>
<td>281,000</td>
<td>589,000</td>
<td>+ 70,000</td>
</tr>
<tr>
<td>in Great Britain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railways</td>
<td>660,000</td>
<td>183,000</td>
<td>546,000</td>
<td>+ 69,000</td>
</tr>
<tr>
<td>Docks and Wharves, etc.</td>
<td>100,000</td>
<td>32,000</td>
<td>73,000</td>
<td>+ 5,000</td>
</tr>
<tr>
<td>Other Transport under Private</td>
<td>344,000</td>
<td>189,000</td>
<td>200,000</td>
<td>+ 45,000</td>
</tr>
<tr>
<td>Ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Transport (excluding Municipal Tramways)</strong></td>
<td>1,104,000</td>
<td>404,000</td>
<td>819,000</td>
<td>+ 119,000</td>
</tr>
<tr>
<td>Tramways under Local Authorities</td>
<td>57,000</td>
<td>28,000</td>
<td>37,000</td>
<td>+ 8,000</td>
</tr>
<tr>
<td><strong>Total Transport</strong></td>
<td>1,161,000</td>
<td>432,000</td>
<td>856,000</td>
<td>+ 127,000</td>
</tr>
</tbody>
</table>

1 Including men who served at some time during the war with His Majesty's Forces, but afterwards returned to civil employment.

2 Including controlled firms, but excluding all kinds of government establishments.

3 Including Arsenals, Dockyards, and National Shell Filling and Projectile Factories, etc.

4 No returns of enlistment were obtained. The figure must be regarded as approximate only.
### TABLE II.—continued.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Estimated number employed July, 1914</th>
<th>Left to join the Forces.</th>
<th>Employed in July, 1918.</th>
<th>Consequent net Replacement (+) or Displacement (−).¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance and Commerce—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking and Finance</td>
<td>176,000</td>
<td>98,000</td>
<td>104,000</td>
<td>+ 26,000</td>
</tr>
<tr>
<td>Commerce</td>
<td>1,225,000</td>
<td>784,000</td>
<td>741,000</td>
<td>+ 300,000</td>
</tr>
<tr>
<td>Total Finance and Commerce</td>
<td>1,401,000</td>
<td>882,000</td>
<td>845,000</td>
<td>+ 326,000</td>
</tr>
<tr>
<td>Professional Occupations (mainly Clerks)</td>
<td>127,000</td>
<td>80,000</td>
<td>68,000</td>
<td>+ 21,000</td>
</tr>
<tr>
<td>Hotels, Public-houses, Cinemas, Theatres, etc.</td>
<td>199,000</td>
<td>129,000</td>
<td>114,000</td>
<td>+ 44,000</td>
</tr>
<tr>
<td>Civil Service—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Office</td>
<td>188,500</td>
<td>81,000</td>
<td>108,500</td>
<td>+ 1,000</td>
</tr>
<tr>
<td>Other Civil Service</td>
<td>55,500</td>
<td>26,000</td>
<td>83,500</td>
<td>+ 54,000</td>
</tr>
<tr>
<td>Total Civil Service</td>
<td>244,000</td>
<td>107,000</td>
<td>192,000</td>
<td>+ 55,000</td>
</tr>
<tr>
<td>Local Government, including Education, but excluding Municipal Tramways, Gas, Water and Electricity..</td>
<td>376,000</td>
<td>132,000</td>
<td>251,000</td>
<td>+ 7,000</td>
</tr>
<tr>
<td>Total for above Occupations</td>
<td>10,610,000</td>
<td>4,896,000</td>
<td>8,080,000</td>
<td>+2,366,000</td>
</tr>
</tbody>
</table>

It is pointed out that the replacement figure does not measure the aggregate number of individuals who entered employment. The actual changes in personnel were probably greater than is indicated by the replacement figures, even though the latter include men returned from the Forces. In the course of four years some hundreds of thousands of men employed before the outbreak of war either died or retired from employment. This normal loss by death, old age and incapacity would have to be taken into account in any complete estimate of the change in personnel, and the men and boys who have filled the vacancies thus created would have to be reckoned in. For present purposes, however, replacement is regarded as excluding the number of men and boys who were required to make good these normal losses.²

¹ Including men who served at some time during the war with His Majesty's Forces, but afterwards returned to civil employment.

² It should be noted incidentally that some of these normal casualties would have occurred among men who had left employment to join the Forces. Probably 25,000 of these men would have been compelled to retire from employment by death or incapacity in normal circumstances, and their places would have been filled by a corresponding number from the rising generation. These 25,000 men have not been deducted from the enlistment figures, and it would appear, therefore, that the replacement as calculated in Table II. includes 25,000 males who would in any case have been required to maintain the labour force at its pre-war level. Others, again, would, in the natural course, have been promoted to the ranks of employers or would have become occupied on their own account. In so far as such persons are included in the enlistment figures here shown, they tend to exaggerate replacement since they would have had to be replaced in any case.
(b) Sources of Supply of Male Labour.

The two most important elements in the replacement were (1) men returning from the Forces to civil work and (2) the natural increase of population. Under the former head are to be included both men discharged through incapacity and men released from the forces to do munition work. The number of these men is believed to have been about 700,000. With regard to the natural increase of population, estimates have been obtained showing that, apart from war casualties and from emigration or immigration, the number of males over 13 years of age in the United Kingdom may be expected to have increased by 850,000 between July, 1914, and July, 1918. Not all of these would have been employable, while some were no doubt working outside the occupations covered by the Z8 inquiry, and others joined the Forces without having become employed. Probably, however, the occupations covered by the inquiry attracted a disproportionately large share of the increased numbers, though some of the men subsequently joined the Forces. It should be noted that the increase of population of employable age, apart from war casualties, was much greater than usual on account of the cessation of emigration. Instead of a net outward movement, there appears to have been during the war a not insignificant net inward movement of passengers. For the rest, the replacement was made up of men who came into these occupations from other occupations, or who, having been employers or workers on their own account, became employed persons, and of various classes of men who were working instead of being idle.

A rough estimate of the various factors, distinguishing between industry and other occupations, is as follows:

**TABLE III.**

Probable Sources of Supply of Male Labour.

<table>
<thead>
<tr>
<th></th>
<th>Industries (including Government and Municipal Establishments)</th>
<th>Other occupations covered by inquiry.</th>
<th>All occupations covered by inquiry.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase consequent upon natural growth of male population</td>
<td>560,000</td>
<td>135,000</td>
<td>695,000</td>
</tr>
<tr>
<td>Net immigration</td>
<td>20,000</td>
<td>5,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Boys entering employment earlier than usual</td>
<td>50,000</td>
<td>40,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Older men who deferred retirement or who have returned to work after having retired</td>
<td>150,000</td>
<td>50,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Males on strike or locked out in July, 1914</td>
<td>35,000</td>
<td>5,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Males out of work on an average on any one day in July, 1914</td>
<td>190,000</td>
<td>60,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Men returned from the Forces to civil work</td>
<td>495,000</td>
<td>205,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,500,000</td>
<td>500,000</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>
It should also be remembered that in 1914 there were nearly 4,000,000 occupied males outside the forms of employment covered by the Z8 inquiry. Of these, fully half would have been between 18 and 43 in July, 1918. As, therefore, less than three-quarters of a million of these are estimated to have joined the Army direct, there is a reserve of well over a million. From this the employments covered were doubtless recruited to the extent of at least 100,000, and possibly several times this number.

Any difference between the total replacement thus accounted for and the total shown in Table II. (2,366,000) is attributed to the factors already mentioned; namely:—(1) inclusion among the enlistments of a certain number of men who joined the forces on more than one occasion during the war; (2) inclusion among the enlistments of a certain number of men who would normally have had to be replaced owing to death, disablement, etc., and for other causes, e.g., in consequence of their having become employers; (3) possible slight exaggeration of number of enlistments by employers; and (4) possible slight exaggeration of total male employment owing to omission of some firms which were shut down.

IV. Changes in Male Age Groups.

After the passing of the Military Service Acts in 1916, by which men of military age became subject to conscription, it became essential to obtain information as to the number of men affected. At the end of 1916, rough estimates were made as the result of various calculations based on the Census of 1911, Z8 returns, recruiting figures and the National Register, which showed that there were at that date in Great Britain approximately 4,500,000 occupied and unoccupied men of military age, of whom some 500,000 were men who had served at some time during the war with H.M. Forces but who had since returned to civil life. Further, it was estimated that of the balance of 4,000,000 not more than 1,750,000 were employed in trades still unprotected against recruiting.

In order to ascertain definite information as regards the number of men of military age in different occupations covered by the Z8 inquiry, employers were now asked by the Board of Trade to sub-divide the number of males they employed into (a) boys under 18; (b) men of military age as covered by the Military Service Acts of 1916; and (c) men over military age. Unfortunately, information as regards age in July, 1914, was not available, but in order to facilitate a rough comparison between the pre-war position and that at subsequent dates, certain assumptions were made, and very rough estimates for July, 1914, were prepared based on the Census of 1911. In Table IV. (a) which follows, figures are given for July, 1914, which show as the result of these estimates the number of boys under 18 years, the number of men 18-41\(\frac{1}{2}\) years, 18-42\(\frac{1}{2}\) years, 18-43 years, 43-51 years, and the number over 51 years. The Military Service Act of
### TABLE IV.

**Analysis of Males by Age Groups.**

*(a) July, 1914.*

<table>
<thead>
<tr>
<th></th>
<th>Under 18</th>
<th>18-41½</th>
<th>18-42½</th>
<th>18-43</th>
<th>43-51</th>
<th>Over 51</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>53,000</td>
<td>522,000</td>
<td>525,000</td>
<td>540,000</td>
<td>139,000</td>
<td>188,000</td>
<td>920,000</td>
</tr>
<tr>
<td>Mines</td>
<td>151,000</td>
<td>777,000</td>
<td>785,000</td>
<td>800,000</td>
<td>155,000</td>
<td>160,000</td>
<td>1,266,000</td>
</tr>
<tr>
<td>Metals</td>
<td>193,000</td>
<td>1,005,000</td>
<td>1,013,000</td>
<td>1,040,000</td>
<td>190,000</td>
<td>211,000</td>
<td>1,634,000</td>
</tr>
<tr>
<td>Chemicals</td>
<td>14,000</td>
<td>97,000</td>
<td>97,000</td>
<td>101,000</td>
<td>21,000</td>
<td>23,000</td>
<td>159,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>123,000</td>
<td>339,000</td>
<td>342,000</td>
<td>347,000</td>
<td>75,000</td>
<td>80,000</td>
<td>625,000</td>
</tr>
<tr>
<td>Clothing</td>
<td>42,000</td>
<td>161,000</td>
<td>163,000</td>
<td>164,000</td>
<td>29,000</td>
<td>52,000</td>
<td>287,000</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>38,000</td>
<td>222,000</td>
<td>223,000</td>
<td>228,000</td>
<td>45,000</td>
<td>49,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Paper</td>
<td>41,000</td>
<td>155,000</td>
<td>156,000</td>
<td>160,000</td>
<td>30,000</td>
<td>30,000</td>
<td>261,000</td>
</tr>
<tr>
<td>Wood</td>
<td>33,000</td>
<td>148,000</td>
<td>150,000</td>
<td>152,000</td>
<td>30,000</td>
<td>43,000</td>
<td>258,000</td>
</tr>
<tr>
<td>Other Trades</td>
<td>46,000</td>
<td>229,000</td>
<td>232,000</td>
<td>236,000</td>
<td>52,000</td>
<td>59,000</td>
<td>393,000</td>
</tr>
<tr>
<td><strong>Total Industry (private concerns)</strong></td>
<td>734,000</td>
<td>3,655,000</td>
<td>3,686,000</td>
<td>3,768,000</td>
<td>766,000</td>
<td>895,000</td>
<td>6,163,000</td>
</tr>
<tr>
<td>Government Establishments</td>
<td>3,000</td>
<td>43,000</td>
<td>45,000</td>
<td>46,000</td>
<td>14,000</td>
<td>13,000</td>
<td>76,000</td>
</tr>
<tr>
<td>Agriculture</td>
<td>123,000</td>
<td>359,000</td>
<td>370,000</td>
<td>412,000</td>
<td>100,000</td>
<td>165,000</td>
<td>800,000</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>12,000</td>
<td>274,000</td>
<td>286,000</td>
<td>295,000</td>
<td>83,000</td>
<td>106,000</td>
<td>496,000</td>
</tr>
<tr>
<td>Civil Service</td>
<td>21,000</td>
<td>144,000</td>
<td>150,000</td>
<td>152,000</td>
<td>33,000</td>
<td>38,000</td>
<td>244,000</td>
</tr>
<tr>
<td>Other Occupations (including Commerce, Transport, etc.)</td>
<td>344,000</td>
<td>1,656,000</td>
<td>1,734,000</td>
<td>1,786,000</td>
<td>327,000</td>
<td>370,000</td>
<td>2,827,000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>1,237,000</td>
<td>6,131,000</td>
<td>6,271,000</td>
<td>6,459,000</td>
<td>1,323,000</td>
<td>1,587,000</td>
<td>10,606,000</td>
</tr>
</tbody>
</table>
### Analysis of Males by Age Groups

#### (b) July, 1917

<table>
<thead>
<tr>
<th>Industry</th>
<th>Under 18</th>
<th>18—42½</th>
<th>Over Military Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>43,000</td>
<td>99,000</td>
<td>323,000</td>
<td>465,000</td>
</tr>
<tr>
<td>Mines</td>
<td>161,000</td>
<td>515,000</td>
<td>410,000</td>
<td>1,086,000</td>
</tr>
<tr>
<td>Metals</td>
<td>298,000</td>
<td>861,000</td>
<td>609,000</td>
<td>1,768,000</td>
</tr>
<tr>
<td>Chemicals</td>
<td>22,000</td>
<td>70,000</td>
<td>84,000</td>
<td>176,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>119,000</td>
<td>129,000</td>
<td>205,000</td>
<td>453,000</td>
</tr>
<tr>
<td>Clothing</td>
<td>46,000</td>
<td>56,000</td>
<td>94,000</td>
<td>196,000</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>44,000</td>
<td>75,000</td>
<td>136,000</td>
<td>255,000</td>
</tr>
<tr>
<td>Paper</td>
<td>30,000</td>
<td>47,000</td>
<td>85,000</td>
<td>162,000</td>
</tr>
<tr>
<td>Wood</td>
<td>35,000</td>
<td>49,000</td>
<td>89,000</td>
<td>173,000</td>
</tr>
<tr>
<td>Other Trades</td>
<td>43,000</td>
<td>88,000</td>
<td>134,000</td>
<td>265,000</td>
</tr>
<tr>
<td><strong>Total Industry (private concerns)</strong></td>
<td><strong>841,000</strong></td>
<td><strong>1,989,000</strong></td>
<td><strong>2,169,000</strong></td>
<td><strong>4,999,000</strong></td>
</tr>
</tbody>
</table>

| Government Establishments     | 20,000   | 106,000 | 117,000           | 243,000 |
| Agriculture                   | 119,000  | 169,000 | 300,000           | 588,000 |
| Local Authorities             | 15,000   | 88,000  | 243,000           | 346,000 |
| Civil Service                 | 17,000   | 66,000  | 111,000           | 194,000 |
| Other Occupations (including Commerce, Transport, etc.) | 354,000 | 700,000 | 890,000 | 1,944,000 |
| **GRAND TOTAL**               | **1,366,000** | **3,118,000** | **3,830,000** | **8,314,000** |

#### (c) April, 1918

<table>
<thead>
<tr>
<th>Industry</th>
<th>Under 18</th>
<th>Military Age 18-43 covered by Military Service Act, 1916</th>
<th>Military Age 43-51 covered by Military Service Act, 1918</th>
<th>Over Military Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>45,000</td>
<td>101,000</td>
<td>113,000</td>
<td>192,000</td>
<td>451,000</td>
</tr>
<tr>
<td>Mines</td>
<td>177,000</td>
<td>519,000</td>
<td>355,000</td>
<td>1,051,000</td>
<td></td>
</tr>
<tr>
<td>Metals</td>
<td>317,000</td>
<td>920,000</td>
<td>287,000</td>
<td>1,843,000</td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>21,000</td>
<td>72,000</td>
<td>33,000</td>
<td>41,000</td>
<td>168,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>113,000</td>
<td>123,000</td>
<td>82,000</td>
<td>107,000</td>
<td>425,000</td>
</tr>
<tr>
<td>Clothing</td>
<td>44,000</td>
<td>57,000</td>
<td>39,000</td>
<td>48,000</td>
<td>188,000</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>43,000</td>
<td>78,000</td>
<td>72,000</td>
<td>54,000</td>
<td>247,000</td>
</tr>
<tr>
<td>Paper</td>
<td>31,000</td>
<td>46,000</td>
<td>46,000</td>
<td>36,000</td>
<td>159,000</td>
</tr>
<tr>
<td>Wood</td>
<td>35,000</td>
<td>54,000</td>
<td>33,000</td>
<td>48,000</td>
<td>170,000</td>
</tr>
<tr>
<td>Other Trades</td>
<td>44,000</td>
<td>92,000</td>
<td>54,000</td>
<td>70,000</td>
<td>260,000</td>
</tr>
<tr>
<td><strong>Total Industry (private concerns)</strong></td>
<td><strong>870,000</strong></td>
<td><strong>2,062,000</strong></td>
<td><strong>2,030,000</strong></td>
<td><strong>4,962,000</strong></td>
<td></td>
</tr>
<tr>
<td>Government Establishments</td>
<td>19,000</td>
<td>113,000</td>
<td>50,000</td>
<td>71,000</td>
<td>253,000</td>
</tr>
<tr>
<td>Agriculture</td>
<td>111,000</td>
<td>213,000</td>
<td>83,000</td>
<td>188,000</td>
<td>595,000</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>15,000</td>
<td>93,000</td>
<td>88,000</td>
<td>146,000</td>
<td>342,000</td>
</tr>
<tr>
<td>Civil Service</td>
<td>15,000</td>
<td>67,000</td>
<td>113,000</td>
<td>195,000</td>
<td></td>
</tr>
<tr>
<td>Other Occupations (including Commerce, Transport, etc.)</td>
<td>339,000</td>
<td>664,000</td>
<td>871,000</td>
<td>1,874,000</td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>1,369,000</strong></td>
<td><strong>3,212,000</strong></td>
<td><strong>3,640,000</strong></td>
<td><strong>8,221,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
1916 applied to all single men over 18 years who were under 41 years on 2 March, 1916, and to all married men who were over 18 years and under 41 years on 24 June, 1916, and it has been assumed for the purpose of calculation that this was equal to an average upper age limit of 41\(\frac{1}{2}\) years in July, 1916, 42\(\frac{1}{2}\) in July, 1917, and 43\(\frac{1}{2}\) in July, 1918. In Table IV. \((b)\) which follows, figures are given for the number of men who in July, 1917, were of military age, \(i.e.,\) 18-42\(\frac{1}{2}\), under the Act of 1916, while in Table IV. \((c)\) figures are given for April, 1918, both for the number of men of military age, \(i.e.,\) 18-43, under the Act of 1916, and of the additional number of military age, \(i.e.,\) 43-51, under the Act of 1918.

In April, 1918, part of the Z8 inquiry (Civil Service, Commerce, Transport, etc.) related to the middle, the rest (Industry, Government Establishments, Agriculture, and services under Local Authorities) to the end of April. Accordingly, the part sent out first asked only for men of military age as defined under the Act of 1916, while firms in the occupations covered later in the month were asked to give separately the men falling under this Act and the men between 43 and 51, covered for the first time in the Military Service Act of 1918, which had just come into force. These are the most recent detailed figures available, as in the two subsequent inquiries before the end of the war (July and October, 1918) military age was defined as 18 to 51\(\frac{1}{2}\) and 18 to 51\(\frac{1}{2}\) respectively, and not further analysed.

Figures relating to military age, \(i.e.,\) 18-41\(\frac{1}{2}\) years in July, 1916, are not available, but as they may be of interest, figures for the age group, 18-41\(\frac{1}{2}\) years in July, 1914, are included, as already stated in Table IV. \((a)\).

The figures in the foregoing tables should in all cases be accepted with reserve. It seems probable that employers, in many cases, under-estimated in their returns the number of their men of military age, and that the figures may to this extent be understated. In studying the changes which occurred in different groups, it should be borne in mind also that enlistment was not solely from men of military age. The number of boys in the Army by April, 1918, has been estimated at 30,000, while it is believed that 150,000 men over military age joined the Army in addition to many thousands who joined the Navy. Not all of these men, however, came from the occupations covered by the Z8 inquiry, and doubtless a number had by April, 1918, already returned to civil employment.

It will be seen that the number of men between the ages of 18 and 43 had decreased by April, 1918, as compared with July, 1914, in every group with the exception of government establishments, and that among all other groups the decrease was of course smallest in the case of metals and chemicals, the groups most largely concerned with the production of munitions. If government establishments and the metal and chemical trades are excluded it will be found that the number of men between the ages of 18-43 years decreased by April, 1918, as compared with July, 1914, by approximately 60 per cent., while in these three groups combined the decrease amounted to less than 7 per cent. The number of men in the age group 18-43
in government establishments and the metal and chemical trades amounted in July, 1914, to 1,187,000, and in April, 1918, to 1,105,000, a decrease of only 82,000 compared with a figure for enlistment of approximately 800,000. The fact of male replacement must not, however, be forgotten. Roughly, some 1,300,000 fresh males who were drawn from the less essential industries in order to meet the constant demand for munitions labour entered these occupations during the course of the war, and of these a large proportion were men of military age or boys who subsequently attained military age. It must be remembered also that the figure for men of military age in April, 1918, includes men released from the Army for munitions work and also discharged soldiers and sailors returned to civil employment, whose number by this date was very considerable.

As previously stated, April, 1918, is the last date for which figures are available for men of military age, analysed in detail according to age groups, but in the following Table IV. (d) an analysis will be found relating to the end of October, 1918, showing the number of boys under 18, the number of men of military age, i.e., 18–51\(\frac{1}{2}\), as covered by the Military Service Act of 1918, and the number of men over military age.

### Table IV.

#### Analysis of Males by Age Groups.

#### (d) October, 1918.

<table>
<thead>
<tr>
<th>Industries</th>
<th>Males of all ages</th>
<th>Boys under 18</th>
<th>Men between the ages of 18 and 51(\frac{1}{2})</th>
<th>Men over the age of 51(\frac{1}{2})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>438,200</td>
<td>56,200</td>
<td>191,800</td>
<td>190,200</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>1,039,100</td>
<td>179,400</td>
<td>662,100</td>
<td>197,600</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>1,875,900</td>
<td>342,500</td>
<td>1,177,100</td>
<td>356,300</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>161,300</td>
<td>20,000</td>
<td>98,000</td>
<td>43,300</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>191,200</td>
<td>41,400</td>
<td>89,800</td>
<td>49,000</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>246,500</td>
<td>42,600</td>
<td>130,100</td>
<td>73,800</td>
</tr>
<tr>
<td>Food, Drink and Tobacco Trades</td>
<td>137,900</td>
<td>30,600</td>
<td>79,700</td>
<td>47,600</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>172,700</td>
<td>38,000</td>
<td>86,800</td>
<td>47,900</td>
</tr>
<tr>
<td>Woods Trades</td>
<td>251,600</td>
<td>41,500</td>
<td>139,500</td>
<td>70,600</td>
</tr>
<tr>
<td>Total Industries (under private ownership)</td>
<td>4,932,800</td>
<td>900,500</td>
<td>2,844,500</td>
<td>1,187,800</td>
</tr>
<tr>
<td>Local Authorities (including Municipal Gas, Water, and Electricity Undertakings and Tramways)</td>
<td>341,200</td>
<td>14,600</td>
<td>182,000</td>
<td>144,600</td>
</tr>
<tr>
<td>Agriculture</td>
<td>578,000</td>
<td>114,800</td>
<td>277,000</td>
<td>186,200</td>
</tr>
<tr>
<td>Civil Service (excluding Post Office)</td>
<td>80,000</td>
<td>6,300</td>
<td>46,000</td>
<td>27,700</td>
</tr>
<tr>
<td>Government Establishments</td>
<td>275,500</td>
<td>22,600</td>
<td>205,600</td>
<td>47,900</td>
</tr>
<tr>
<td>Other Occupations (including Commerce, Transport, etc.)</td>
<td>1,851,600</td>
<td>324,400</td>
<td>1,007,900</td>
<td>519,300</td>
</tr>
</tbody>
</table>

**Grand Total** 8,059,100 1,382,600 4,563,000 2,113,500
It is interesting to compare the figures in Tables IV. (c) and (d) for government establishments and the metal and chemical trades with figures for somewhat similar groups compiled at the end of October, 1918, by the Ministry of National Service as to the distribution of men of military age analysed according to age group and by medical category. The following figures shown in Table V. are the results of these analyses for what were known on the register of the Ministry of National Service as Sections “D” and “E,” covering for the most part all men of military age, skilled and unskilled respectively, who were employed directly or indirectly on the manufacture of munitions as scheduled in the List of Certified Occupations.

### TABLE V.

**ANALYSIS OF MEN OF MILITARY AGE IN SECTIONS “D” AND “E” OF NATIONAL SERVICE REGISTER.**

<table>
<thead>
<tr>
<th>Year of Birth</th>
<th>Grade I</th>
<th>Grade II</th>
<th>Grade III</th>
<th>Not Medically Examined</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901 and after “D”</td>
<td>13</td>
<td>5</td>
<td>3</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>62</td>
<td>14</td>
<td>12</td>
<td>255</td>
</tr>
<tr>
<td>1900</td>
<td>1,206</td>
<td>758</td>
<td>492</td>
<td>2,356</td>
<td>4,812</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>6,152</td>
<td>2,333</td>
<td>1,786</td>
<td>7,275</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>20,975</td>
<td>10,431</td>
<td>9,914</td>
<td>9,662</td>
</tr>
<tr>
<td>1895/1899</td>
<td>8,745</td>
<td>9,239</td>
<td>13,118</td>
<td>6,084</td>
<td>37,186</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>24,736</td>
<td>8,946</td>
<td>11,503</td>
<td>70,691</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>11,146</td>
<td>8,366</td>
<td>17,169</td>
<td>12,904</td>
</tr>
<tr>
<td>1885/1889</td>
<td>27,644</td>
<td>11,417</td>
<td>14,776</td>
<td>103,011</td>
<td>50,982</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>12,276</td>
<td>10,368</td>
<td>17,169</td>
<td>15,999</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>34,204</td>
<td>24,916</td>
<td>31,540</td>
<td>201,165</td>
</tr>
<tr>
<td>1876/1884</td>
<td>20,962</td>
<td>28,377</td>
<td>47,476</td>
<td>37,934</td>
<td>134,749</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>1,919</td>
<td>2,457</td>
<td>2,666</td>
<td>24,165</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>1,660</td>
<td>2,775</td>
<td>4,229</td>
<td>10,491</td>
</tr>
<tr>
<td>1874/1875</td>
<td>796</td>
<td>783</td>
<td>762</td>
<td>15,817</td>
<td>18,158</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>723</td>
<td>983</td>
<td>1,240</td>
<td>8,880</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>487</td>
<td>719</td>
<td>734</td>
<td>28,456</td>
</tr>
<tr>
<td>1868/1871</td>
<td>409</td>
<td>1,061</td>
<td>1,468</td>
<td>17,688</td>
<td>20,826</td>
</tr>
<tr>
<td></td>
<td>“D”</td>
<td>21</td>
<td>32</td>
<td>55</td>
<td>3,829</td>
</tr>
<tr>
<td></td>
<td>“E”</td>
<td>41</td>
<td>75</td>
<td>115</td>
<td>2,651</td>
</tr>
<tr>
<td>Total</td>
<td>112,001</td>
<td>60,464</td>
<td>72,445</td>
<td>459,306</td>
<td>704,216</td>
</tr>
<tr>
<td>“D”</td>
<td>62,376</td>
<td>63,591</td>
<td>106,741</td>
<td>120,161</td>
<td>352,869</td>
</tr>
<tr>
<td>“E”</td>
<td>174,377</td>
<td>124,055</td>
<td>179,186</td>
<td>579,467</td>
<td>1,057,085</td>
</tr>
</tbody>
</table>

### V. Loss in Labour Strength.

In considering the changes effected by the war in the total labour strength of the country, the large increase in the employment of women, which has not yet been touched upon, must not be forgotten. In July, 1914, the total number of women and girls employed in the occupations covered by the Z8 inquiry amounted to 3,276,000, while
by July, 1918, this number had risen to 4,935,000. In what proportions these additional 1,659,000 females were drawn from different sources of supply it is impossible to calculate, but there is no doubt that a large number—it is estimated about 400,000—were drawn from the ranks of domestic servants, while the majority of the remainder were either married women who had retired from employment, or else women or girls who had not previously been employed in other than household duties.

In July, 1914, there were employed 13,886,000 persons, of whom 24 per cent. were females. During the subsequent four years, 4,896,000 males, or 46·1 per cent. of the number employed in July, 1914, enlisted, and there was a counterbalancing influx of 2,366,000 males and an additional influx of 1,659,000 females. In July, 1918, therefore, there were employed 13,015,000 persons, of whom 38 per cent. were females, and a net numerical loss of 871,000 may be taken as the actual reduction in employment effected by the war. It must be observed, however, that this by no means represents the real loss to the country in efficient labour power. It has been shown that while the number of males decreased by 23·8 per cent. the number of females increased by 50·6 per cent., and there is no method by which the relative productivity of man power and woman power can be adequately calculated. It seems probable, also, that the males drawn into employment during the war, owing either to youth, old age, or lack of skill in the occupation for which they were required, were not as efficient as those whom they replaced, and that the real reduction in man power as such was very much greater than is indicated by the numerical loss in the number of males employed.
CHAPTER III.

THE COURSE OF CHANGES IN EMPLOYMENT.

I. Principal Changes in Employment.

In studying the main effects of the war on the man power of the nation in the previous chapter, a comparison has been made between the state of employment at the outbreak of war with that at the close. In the following tables, which relate only to those occupations covered by the Z8 inquiry, and are subject, therefore, to qualifications similar to those already explained, an attempt has been made to follow the course of the changes from year to year.

It should be remembered that the figures show only the numerical changes in the state of employment, and that they do not by any means represent the real movement of labour from industry to industry within the occupations covered. The figures of replacement and displacement do not measure the number of substitutes in any one industry and are purely calculations constructed on the changes in employment compared with enlistment. If an industry shows a contraction of 50 per cent. and an enlistment of 30 per cent. there is said to be a displacement of 20 per cent., while, similarly, if an industry shows an enlistment of 50 per cent. and a contraction of only 30 per cent. there is said to be a replacement of 20 per cent. But when there is a displacement of 20 per cent. this does not mean that only 20 per cent. left this particular industry in addition to those who enlisted, for a further number may also have left and their places been taken by substitutes. In the case of a replacement of 20 per cent., also, a further percentage may well have been drawn in to act as substitutes for men who did not enlist but who left the industry in question in order to enter another. From the following tables the extent of this movement of labour from industry to industry is not ascertainable, but it is obvious that many men left those industries which were slack, as in the case of building, in order to enter the more prosperous industries and in particular the munition trades, in which, owing to the shortage of labour, the rate of wages increased rapidly. Similarly, in the case of women, there was an outflow from all the women’s trades in which wages were particularly low into the more highly paid occupations where their services were required.

In the following Table VI. the main significant changes since July, 1914, in the state of employment have been estimated for (a) July, 1915, (b) July, 1916; (c) July, 1917, and (d) July, 1918. Throughout the percentages have been worked on whole numbers, and not on the numbers shown in the tables, which have been rounded to the nearest thousand.

(a) July, 1914–15.

As previously stated, one of the most immediate effects of the war was to produce a serious dread of unemployment, and for the first few months there was in fact a considerable amount of distress. This problem, however, very soon ceased to be of importance, and instead the nation was faced with a direct shortage of labour in particular industries to replace those men whose services were urgently needed
WITH THE FIGHTING FORCES. IT WILL BE SEEN THAT BY JULY, 1915, NO LESS THAN 2,200,000 MEN, INCLUDING TERRITORIALS AND RESERVISTS, ARE ESTIMATED TO HAVE LEFT THEIR CIVILIAN OCCUPATIONS TO JOIN H.M. FORCES, BUT THAT ALTHOUGH EMPLOYMENT FELL DURING THE SAME PERIOD BY 836,000, OR 6 PER CENT., AS MANY AS 982,000 MALES AND 382,000 FEMALES WERE DRAWN IN AS FRESH LABOUR. IT IS NOTICEABLE THAT THIS INFLOW AND OUTFLOW OF WORKPEOPLE BETWEEN JULY, 1914, AND JULY, 1915, WAS GREATER THAN ANY CORRESPONDING MOVEMENT OF LABOUR IN ANY SUBSEQUENT YEAR OF THE WAR.

(b) JULY, 1915-16.

During the second year of the war the rate of enlistment slackened and the number of men who are estimated to have left to join the Forces amounts to only 1,014,000. On the other hand, the fresh labour drawn in was also smaller in proportion to enlistment, amounting to only 420,000 males and 563,000 females, so that the total numbers employed fell by 31,000 to 13,019,000. It is noticeable also that while, during the first year, the number of males drawn into these occupations was more than double the number of females, between July, 1915, and July, 1916, the additional number of females employed was greater by 143,000 than the number of fresh men employed, showing that even by this date substitution by female labour was making rapid progress.

(c) JULY, 1916-17.

The most noticeable feature during the year ending July, 1917, was that employment instead of continuing to decrease showed a slight improvement, the number of workpeople in the occupations covered increasing by 27,000 compared with July, 1916. This can be accounted for to a large extent by the extraordinary growth after the formation of the Ministry of Munitions in the munition industries, into which all classes of labour were drawn. The number of men who left to join the Forces amounted to 1,046,000, while the replacement by males increased during the year by 562,000 and the number of females employed increased by 511,000. The number of females employed in government establishments alone amounted by July, 1917, to 206,000, and the large increase, amounting to 44·4 per cent. compared with July, 1914, in the total strength of female labour in all occupations was remarkable. No less extraordinary was the steady influx of male substitutes. At the very end of December, 1916, the Ministry of National Service first came into being with the function of co-ordinating man-power distribution, and an appeal was issued to all men between 18 and 61 to enrol for national service as National Service Volunteers. In response to this appeal some 400,000 volunteers enrolled, but to what extent they were drawn from occupations outside the scope of the 78 inquiry it is impossible to estimate. The fact that a large number of men returned from H.M. Forces were by this time re-entering civil employment must also not be ignored.

(d) JULY, 1917-18.

During the last year of the war employment again showed a very slight decrease. The demands for men for H.M. Forces continued
### Table (a) Changes in Employment

<table>
<thead>
<tr>
<th>Industry (private concerns)</th>
<th>Numbers employed July, 1914</th>
<th>Numbers employed July, 1915</th>
<th>Contraction / expansion (±) per cent since July, 1914</th>
<th>Numbers enlisted since July, 1914</th>
<th>Percentage enlisted since July, 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>920,000</td>
<td>703,000</td>
<td>-23.6</td>
<td>178,000</td>
<td>19-2</td>
</tr>
<tr>
<td>Mines</td>
<td>1,266,000</td>
<td>1,058,000</td>
<td>-16.4</td>
<td>270,000</td>
<td>21-1</td>
</tr>
<tr>
<td>Metals</td>
<td>1,634,000</td>
<td>1,573,000</td>
<td>-3.7</td>
<td>313,000</td>
<td>19-4</td>
</tr>
<tr>
<td>Chemicals</td>
<td>159,000</td>
<td>161,000</td>
<td>+1.3</td>
<td>38,000</td>
<td>23-6</td>
</tr>
<tr>
<td>Textiles</td>
<td>625,000</td>
<td>557,000</td>
<td>-10.8</td>
<td>102,000</td>
<td>16-3</td>
</tr>
<tr>
<td>Clothing</td>
<td>287,000</td>
<td>263,000</td>
<td>-8.5</td>
<td>53,000</td>
<td>18-5</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>360,000</td>
<td>326,000</td>
<td>-9.6</td>
<td>85,000</td>
<td>23-7</td>
</tr>
<tr>
<td>Paper</td>
<td>261,000</td>
<td>212,000</td>
<td>-18.8</td>
<td>53,000</td>
<td>20-1</td>
</tr>
<tr>
<td>Wood</td>
<td>258,000</td>
<td>209,000</td>
<td>-19.0</td>
<td>56,000</td>
<td>21-1</td>
</tr>
<tr>
<td>Other Trades</td>
<td>393,000</td>
<td>331,000</td>
<td>-15.8</td>
<td>81,000</td>
<td>20-1</td>
</tr>
<tr>
<td>Total Industry (private concerns)</td>
<td>6,163,000</td>
<td>5,393,000</td>
<td>-12.5</td>
<td>1,229,000</td>
<td>19-2</td>
</tr>
<tr>
<td>Government Establishments</td>
<td>76,000</td>
<td>151,000</td>
<td>+98.8</td>
<td>10,000</td>
<td>13-1</td>
</tr>
<tr>
<td>Agriculture in Great Britain (permanent labour only)</td>
<td>800,000</td>
<td>701,000</td>
<td>-12.4</td>
<td>121,000</td>
<td>15-1</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>496,000</td>
<td>435,000</td>
<td>-12.3</td>
<td>87,000</td>
<td>17-5</td>
</tr>
<tr>
<td>Civil Service</td>
<td>244,000</td>
<td>209,000</td>
<td>-14.4</td>
<td>54,000</td>
<td>22-1</td>
</tr>
<tr>
<td>Other Occupations covered by Z8 Inquiry, including Commerce, Transport, etc.</td>
<td>2,831,000</td>
<td>2,503,000</td>
<td>-11.6</td>
<td>699,000</td>
<td>24-7</td>
</tr>
<tr>
<td>Grand Total</td>
<td>10,610,000</td>
<td>9,392,000</td>
<td>-11.5</td>
<td>2,200,000</td>
<td>20-7</td>
</tr>
</tbody>
</table>
### CHANGES IN EMPLOYMENT

#### VI.

**JULY, 1914—JULY, 1915.**

<table>
<thead>
<tr>
<th>Displacement (-) or replacement (+) since July, 1914.</th>
<th>Displacement (-) or replacement (+) per cent since July, 1914.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
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<tr>
<td>- 39,000</td>
<td>- 4.3</td>
<td>7,000</td>
<td>7,500</td>
</tr>
<tr>
<td>- 62,000</td>
<td>+ 4.9</td>
<td>7,000</td>
<td>6,500</td>
</tr>
<tr>
<td>+252,000</td>
<td>+ 15.5</td>
<td>170,000</td>
<td>203,000</td>
</tr>
<tr>
<td>+ 40,000</td>
<td>+ 24.9</td>
<td>40,000</td>
<td>48,000</td>
</tr>
<tr>
<td>+ 34,000</td>
<td>+ 5.5</td>
<td>863,000</td>
<td>888,000</td>
</tr>
<tr>
<td>+ 29,000</td>
<td>+ 10.0</td>
<td>612,000</td>
<td>634,000</td>
</tr>
<tr>
<td>+ 51,000</td>
<td>+ 14.1</td>
<td>196,000</td>
<td>209,000</td>
</tr>
<tr>
<td>+ 4,000</td>
<td>+ 1.7</td>
<td>147,500</td>
<td>138,500</td>
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<td>+ 7,000</td>
<td>+ 2.5</td>
<td>44,000</td>
<td>48,000</td>
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<tr>
<td>+ 19,000</td>
<td>+ 4.8</td>
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<td>104,500</td>
</tr>
<tr>
<td>+459,000</td>
<td>+ 7.4</td>
<td>2,176,000</td>
<td>2,287,000</td>
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<tr>
<td>+ 85,000</td>
<td>+111.9</td>
<td>2,000</td>
<td>6,000</td>
</tr>
<tr>
<td>+ 22,000</td>
<td>+ 2.7</td>
<td>80,000</td>
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<td>+ 26,000</td>
<td>+ 5.2</td>
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<td>+ 19,000</td>
<td>+ 7.7</td>
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<td>86,000</td>
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<td>+371,000</td>
<td>+ 13.1</td>
<td>754,000</td>
<td>997,000</td>
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<td>+982,000</td>
<td>+ 9.2</td>
<td>3,276,000</td>
<td>3,658,000</td>
</tr>
</tbody>
</table>
TABLE

(b) CHANGES IN EMPLOYMENT,

<table>
<thead>
<tr>
<th>Industry (private concerns)</th>
<th>Numbers employed July, 1914</th>
<th>Numbers employed July, 1916</th>
<th>Contraction (—) or expansion (+) per cent, since July, 1914</th>
<th>Numbers enlisted since July, 1914</th>
<th>Percentage enlisted since July, 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>920,000</td>
<td>559,000</td>
<td>— 39·2</td>
<td>303,000</td>
<td>32·9</td>
</tr>
<tr>
<td>Mines</td>
<td>1,266,000</td>
<td>1,061,000</td>
<td>— 16·2</td>
<td>307,000</td>
<td>24·2</td>
</tr>
<tr>
<td>Metals</td>
<td>1,634,000</td>
<td>1,707,000</td>
<td>+ 4·5</td>
<td>421,000</td>
<td>25·8</td>
</tr>
<tr>
<td>Chemicals</td>
<td>159,000</td>
<td>176,000</td>
<td>+ 10·7</td>
<td>54,000</td>
<td>33·7</td>
</tr>
<tr>
<td>Textiles</td>
<td>625,000</td>
<td>497,000</td>
<td>— 20·5</td>
<td>186,000</td>
<td>29·8</td>
</tr>
<tr>
<td>Clothing</td>
<td>287,000</td>
<td>226,000</td>
<td>— 21·4</td>
<td>104,000</td>
<td>36·2</td>
</tr>
<tr>
<td>Food, Drink, Tobacco</td>
<td>360,000</td>
<td>294,000</td>
<td>— 18·3</td>
<td>144,000</td>
<td>40·0</td>
</tr>
<tr>
<td>Paper</td>
<td>261,000</td>
<td>187,000</td>
<td>— 28·4</td>
<td>91,000</td>
<td>34·9</td>
</tr>
<tr>
<td>Wood</td>
<td>258,000</td>
<td>195,000</td>
<td>— 24·4</td>
<td>95,000</td>
<td>36·8</td>
</tr>
<tr>
<td>Other Trades</td>
<td>393,000</td>
<td>291,000</td>
<td>— 26·0</td>
<td>125,000</td>
<td>31·8</td>
</tr>
<tr>
<td>Total Industry (private concerns)</td>
<td>6,163,000</td>
<td>5,193,000</td>
<td>— 15·8</td>
<td>1,830,000</td>
<td>29·7</td>
</tr>
<tr>
<td>Government Establishments</td>
<td>76,000</td>
<td>205,000</td>
<td>+170·0</td>
<td>20,000</td>
<td>26·3</td>
</tr>
<tr>
<td>Agriculture in Great Britain (permanent labour)</td>
<td>800,000</td>
<td>622,000</td>
<td>— 22·2</td>
<td>177,000</td>
<td>22·1</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>496,000</td>
<td>369,000</td>
<td>— 25·6</td>
<td>139,000</td>
<td>28·0</td>
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<tr>
<td>Civil Service</td>
<td>244,000</td>
<td>203,000</td>
<td>— 16·8</td>
<td>81,000</td>
<td>33·2</td>
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<tr>
<td>Other Occupations covered by Z8 Inquiry, including Commerce, Transport, etc.</td>
<td>2,831,000</td>
<td>2,206,000</td>
<td>— 22·1</td>
<td>967,000</td>
<td>34·2</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>10,610,000</td>
<td>8,798,000</td>
<td>— 17·1</td>
<td>3,214,000</td>
<td>30·3</td>
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</tbody>
</table>
VI.—continued.


<table>
<thead>
<tr>
<th>Displacement (−) or replacement (+) since July, 1914.</th>
<th>Displacement (−) or replacement (+) per cent. since July, 1914.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>−58,000</td>
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</tr>
<tr>
<td>+102,000</td>
<td>+8.0</td>
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<td>11,000</td>
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<tr>
<td>+494,000</td>
<td>+30.3</td>
<td>170,000</td>
<td>370,000</td>
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<tr>
<td>+71,000</td>
<td>+44.4</td>
<td>40,000</td>
<td>87,000</td>
</tr>
<tr>
<td>+58,000</td>
<td>+9.3</td>
<td>863,000</td>
<td>908,000</td>
</tr>
<tr>
<td>+43,000</td>
<td>+14.8</td>
<td>612,000</td>
<td>603,000</td>
</tr>
<tr>
<td>+78,000</td>
<td>+21.7</td>
<td>196,000</td>
<td>227,000</td>
</tr>
<tr>
<td>+17,000</td>
<td>+6.5</td>
<td>147,500</td>
<td>145,500</td>
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<tr>
<td>+32,000</td>
<td>+12.4</td>
<td>44,000</td>
<td>56,000</td>
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<tr>
<td>+23,000</td>
<td>+5.8</td>
<td>89,500</td>
<td>121,500</td>
</tr>
<tr>
<td>+860,000</td>
<td>+13.9</td>
<td>2,176,000</td>
<td>2,539,000</td>
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<td>+149,000</td>
<td>+196.0</td>
<td>2,000</td>
<td>72,000</td>
</tr>
<tr>
<td>−1,000</td>
<td>−0.1</td>
<td>80,000</td>
<td>101,000</td>
</tr>
<tr>
<td>+12,000</td>
<td>+2.4</td>
<td>198,000</td>
<td>225,000</td>
</tr>
<tr>
<td>+40,000</td>
<td>+16.4</td>
<td>66,000</td>
<td>149,000</td>
</tr>
<tr>
<td>+342,000</td>
<td>+12.1</td>
<td>754,000</td>
<td>1,135,000</td>
</tr>
<tr>
<td>+1,402,000</td>
<td>+13.2</td>
<td>3,276,000</td>
<td>4,221,000</td>
</tr>
<tr>
<td>Industry (private concerns)</td>
<td>Numbers employed July, 1914</td>
<td>Numbers employed July, 1917</td>
<td>Contraction (−) or expansion (+) per cent since July, 1914</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Building</td>
<td>920,000</td>
<td>465,000</td>
<td>− 49.4</td>
</tr>
<tr>
<td>Mines</td>
<td>1,266,000</td>
<td>1,086,000</td>
<td>− 14.2</td>
</tr>
<tr>
<td>Metals</td>
<td>1,634,000</td>
<td>1,768,000</td>
<td>+ 8.2</td>
</tr>
<tr>
<td>Chemicals</td>
<td>159,000</td>
<td>176,000</td>
<td>+ 10.7</td>
</tr>
<tr>
<td>Textiles</td>
<td>625,000</td>
<td>453,000</td>
<td>− 27.4</td>
</tr>
<tr>
<td>Clothing</td>
<td>287,000</td>
<td>196,000</td>
<td>− 31.7</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>360,000</td>
<td>255,000</td>
<td>− 29.2</td>
</tr>
<tr>
<td>Paper</td>
<td>261,000</td>
<td>162,000</td>
<td>− 38.0</td>
</tr>
<tr>
<td>Wood</td>
<td>258,000</td>
<td>173,000</td>
<td>− 33.2</td>
</tr>
<tr>
<td>Other Trades</td>
<td>393,000</td>
<td>265,000</td>
<td>− 32.6</td>
</tr>
<tr>
<td><strong>Total Industry (private concerns)</strong></td>
<td><strong>6,163,000</strong></td>
<td><strong>4,999,000</strong></td>
<td><strong>− 18.9</strong></td>
</tr>
<tr>
<td>Government Establishments</td>
<td>76,000</td>
<td>243,000</td>
<td>+ 218.4</td>
</tr>
<tr>
<td>Agriculture in Great Britain (permanent labour)</td>
<td>800,000</td>
<td>588,000</td>
<td>− 26.5</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>496,000</td>
<td>346,000</td>
<td>− 30.3</td>
</tr>
<tr>
<td>Civil Service</td>
<td>244,000</td>
<td>194,000</td>
<td>− 20.5</td>
</tr>
<tr>
<td>Other Occupations covered by Z8 Inquiry, including Commerce, Transport, etc.</td>
<td>2,831,000</td>
<td>1,944,000</td>
<td>− 31.4</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>10,610,000</strong></td>
<td><strong>8,314,000</strong></td>
<td><strong>− 21.7</strong></td>
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</tbody>
</table>
VI.—continued.

**JULY, 1914**—**JULY, 1917.**

<table>
<thead>
<tr>
<th>Displacement (−) or replacement (+) since July, 1914.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>− 61,000</td>
<td>− 6.6</td>
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</tr>
<tr>
<td>+ 176,000</td>
<td>+ 13.9</td>
<td>7,000</td>
</tr>
<tr>
<td>+ 673,000</td>
<td>+ 41.2</td>
<td>170,000</td>
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<td>+ 90,000</td>
<td>+ 56.3</td>
<td>40,000</td>
</tr>
<tr>
<td>+ 83,000</td>
<td>+ 13.4</td>
<td>863,000</td>
</tr>
<tr>
<td>+ 57,000</td>
<td>+ 20.0</td>
<td>612,000</td>
</tr>
<tr>
<td>+ 92,000</td>
<td>+ 25.4</td>
<td>196,000</td>
</tr>
<tr>
<td>+ 24,000</td>
<td>+ 9.2</td>
<td>147,500</td>
</tr>
<tr>
<td>+ 38,000</td>
<td>+ 14.7</td>
<td>44,000</td>
</tr>
<tr>
<td>+ 35,000</td>
<td>+ 8.8</td>
<td>89,500</td>
</tr>
<tr>
<td>+1,207,000</td>
<td>+ 19.6</td>
<td>2,176,000</td>
</tr>
<tr>
<td>+ 208,000</td>
<td>+ 272.1</td>
<td>2,000</td>
</tr>
<tr>
<td>+ 30,000</td>
<td>+ 3.7</td>
<td>80,000</td>
</tr>
<tr>
<td>+ 20,000</td>
<td>+ 4.0</td>
<td>198,000</td>
</tr>
<tr>
<td>+ 48,000</td>
<td>+ 19.7</td>
<td>66,000</td>
</tr>
<tr>
<td>+ 451,000</td>
<td>+ 15.9</td>
<td>754,000</td>
</tr>
<tr>
<td>+1,964,000</td>
<td>+ 18.5</td>
<td>3,276,000</td>
</tr>
</tbody>
</table>
TABLE

*(d) Changes in Employment,*

<table>
<thead>
<tr>
<th>Industry (private concerns) —</th>
<th>Males.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Numbers employed July, 1914</td>
</tr>
<tr>
<td>Building</td>
<td>920,000</td>
</tr>
<tr>
<td>Mines</td>
<td>1,266,000</td>
</tr>
<tr>
<td>Metals</td>
<td>1,634,000</td>
</tr>
<tr>
<td>Chemicals</td>
<td>159,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>625,000</td>
</tr>
<tr>
<td>Clothing</td>
<td>287,000</td>
</tr>
<tr>
<td>Food, Drink, and Tobacco</td>
<td>360,000</td>
</tr>
<tr>
<td>Paper</td>
<td>261,000</td>
</tr>
<tr>
<td>Wood</td>
<td>258,000</td>
</tr>
<tr>
<td>Other Trades</td>
<td>393,000</td>
</tr>
<tr>
<td><strong>Total Industry (private concerns)</strong></td>
<td><strong>6,163,000</strong></td>
</tr>
<tr>
<td>Government Establishments</td>
<td>76,000</td>
</tr>
<tr>
<td>Agriculture in Great Britain (permanent labour)</td>
<td>800,000</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>496,000</td>
</tr>
<tr>
<td>Civil Service</td>
<td>244,000</td>
</tr>
<tr>
<td>Other Occupations covered by Z8 Inquiry, including Commerce, Transport, etc.</td>
<td>2,831,000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>10,610,000</strong></td>
</tr>
</tbody>
</table>
### CHANGES IN EMPLOYMENT

#### VI. — continued.

**JULY, 1914—JULY, 1918.**

<table>
<thead>
<tr>
<th>Displacement (−) or replacement (+) since July, 1914.</th>
<th>Displacement (−) or replacement (+) per cent. since July, 1914.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>− 50,000</td>
<td>− 5·4</td>
<td>7,000</td>
<td>469,000 − 49·4</td>
</tr>
<tr>
<td>+ 198,000</td>
<td>+ 15·6</td>
<td>7,000</td>
<td>1,029,000 − 19·2</td>
</tr>
<tr>
<td>+ 871,000</td>
<td>+ 53·3</td>
<td>170,000</td>
<td>2,418,000 + 34·0</td>
</tr>
<tr>
<td>+ 88,000</td>
<td>+ 55·5</td>
<td>40,000</td>
<td>266,000 + 33·6</td>
</tr>
<tr>
<td>+ 78,000</td>
<td>+ 12·5</td>
<td>863,000</td>
<td>1,238,000 − 16·8</td>
</tr>
<tr>
<td>+ 66,000</td>
<td>+ 23·1</td>
<td>612,000</td>
<td>751,000 − 16·5</td>
</tr>
<tr>
<td>+ 104,000</td>
<td>+ 28·9</td>
<td>196,000</td>
<td>478,000 − 14·0</td>
</tr>
<tr>
<td>+ 30,000</td>
<td>+ 11·4</td>
<td>147,500</td>
<td>297,500 − 27·2</td>
</tr>
<tr>
<td>+ 46,000</td>
<td>+ 17·8</td>
<td>44,000</td>
<td>247,000 − 18·2</td>
</tr>
<tr>
<td>+ 40,000</td>
<td>+ 10·2</td>
<td>89,500</td>
<td>403,500 − 16·3</td>
</tr>
<tr>
<td>+ 1,471,000</td>
<td>+ 23·9</td>
<td>2,176,000</td>
<td>7,597,000 − 8·9</td>
</tr>
<tr>
<td>+ 234,000</td>
<td>+ 306·0</td>
<td>2,000</td>
<td>482,000 + 518·0</td>
</tr>
<tr>
<td>+ 70,000</td>
<td>+ 8·7</td>
<td>80,000</td>
<td>702,000 − 20·2</td>
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<tr>
<td>+ 26,000</td>
<td>+ 5·2</td>
<td>198,000</td>
<td>590,000 − 15·0</td>
</tr>
<tr>
<td>+ 55,000</td>
<td>+ 22·6</td>
<td>66,000</td>
<td>426,000 + 37·4</td>
</tr>
<tr>
<td>+ 510,000</td>
<td>+ 18·0</td>
<td>754,000</td>
<td>3,218,000 − 10·2</td>
</tr>
<tr>
<td>+ 2,366,000</td>
<td>+ 22·3</td>
<td>3,276,000</td>
<td>13,015,000 − 6·3</td>
</tr>
</tbody>
</table>
to be urgent, more particularly after the spring offensive of the Germans, and although it was impossible to release men at the same rate as in previous years, 636,000 men left the occupations covered, making a total of 4,896,000 since the beginning of the war. It is noticeable that the influx of male substitutes was comparatively well maintained, but that the rate of increase in the number of females employed showed a marked slackening off. The replacement of males increased by 402,000, making a total of 2,366,000 since July, 1914, while the number of females employed increased by 203,000, making a total increase of 1,659,000 since July, 1914. There was therefore a net decrease in employment during the year of 31,000 and a total net decrease of 871,000 during the whole four years. It will be seen that during the war period July, 1914, to July, 1918, there was a decrease of 2,530,000, or 23·8 per cent., in the number of males employed, and, as already stated, an increase of 1,659,000, or 50·6 per cent., in the number of females.

It is interesting to compare the annual influx of labour with enlistment as in the following Table VII., in which the influx of males and females are each shown as a percentage of the total number of males and females together employed in July, 1914.

**TABLE VII.**

**INFLUX OF MALE AND FEMALE LABOUR.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nos.</td>
<td>%</td>
<td>Nos.</td>
<td>%</td>
</tr>
<tr>
<td>Net influx of males into occupations covered</td>
<td>982,000</td>
<td>7·1</td>
<td>1,402,000</td>
<td>10·1</td>
</tr>
<tr>
<td>Net influx of females into occupations covered</td>
<td>382,000</td>
<td>2·7</td>
<td>945,000</td>
<td>6·8</td>
</tr>
<tr>
<td>Total net influx in occupations covered</td>
<td>1,364,000</td>
<td>9·8</td>
<td>2,347,000</td>
<td>16·9</td>
</tr>
<tr>
<td>Enlistment</td>
<td>2,200,000</td>
<td>15·9</td>
<td>3,214,000</td>
<td>23·2</td>
</tr>
<tr>
<td>Consequent net loss in persons</td>
<td>836,000</td>
<td>6·0</td>
<td>867,000</td>
<td>6·2</td>
</tr>
</tbody>
</table>

**II. Increased Employment of Women.**

Figures have already been shown in Tables VI. (a), (b), (c), (d), for the increase by each July of the war period in the number of females employed compared with July, 1914. In the following Table VIII. figures are given showing the percentage of females to the total numbers employed, and these may be regarded perhaps as the most significant figures which can be obtained as to the progress of substitution by means of the employment of women.
### Table VIII

**Proportion of Females to Total Numbers Employed.**

<table>
<thead>
<tr>
<th>INDUSTRIES</th>
<th>JULY, 1914</th>
<th>JULY, 1915</th>
<th>JULY, 1916</th>
<th>JULY, 1917</th>
<th>JULY, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated Total Numbers Employed</td>
<td>Estimated Total Numbers Employed</td>
<td>Estimated Total Numbers Employed</td>
<td>Estimated Total Numbers Employed</td>
<td>Estimated Total Numbers Employed</td>
</tr>
<tr>
<td>Building</td>
<td>927,000</td>
<td>710,500</td>
<td>569,000</td>
<td>485,000</td>
<td>469,000</td>
</tr>
<tr>
<td>Mines</td>
<td>1,273,000</td>
<td>1,064,500</td>
<td>1,072,000</td>
<td>1,098,000</td>
<td>1,029,000</td>
</tr>
<tr>
<td>Metals</td>
<td>1,804,000</td>
<td>1,776,000</td>
<td>2,077,000</td>
<td>2,291,000</td>
<td>2,418,000</td>
</tr>
<tr>
<td>Chemicals</td>
<td>199,000</td>
<td>209,000</td>
<td>263,000</td>
<td>285,000</td>
<td>266,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>1,488,000</td>
<td>1,445,000</td>
<td>1,405,000</td>
<td>1,337,000</td>
<td>1,238,000</td>
</tr>
<tr>
<td>Clothing</td>
<td>899,000</td>
<td>897,000</td>
<td>829,000</td>
<td>770,000</td>
<td>751,000</td>
</tr>
<tr>
<td>Food, Drink &amp; Tobacco</td>
<td>556,000</td>
<td>535,000</td>
<td>521,000</td>
<td>481,000</td>
<td>478,000</td>
</tr>
<tr>
<td>Paper</td>
<td>408,500</td>
<td>350,500</td>
<td>332,500</td>
<td>305,500</td>
<td>297,500</td>
</tr>
<tr>
<td>Wood</td>
<td>302,000</td>
<td>257,000</td>
<td>251,000</td>
<td>241,000</td>
<td>247,000</td>
</tr>
<tr>
<td>Other Trades</td>
<td>482,500</td>
<td>435,500</td>
<td>412,500</td>
<td>403,500</td>
<td>403,500</td>
</tr>
<tr>
<td>All Industry (Private concerns)</td>
<td>8,339,000</td>
<td>7,680,000</td>
<td>7,732,000</td>
<td>7,697,000</td>
<td>7,597,000</td>
</tr>
<tr>
<td>Govt. Establishments</td>
<td>78,000</td>
<td>157,000</td>
<td>277,000</td>
<td>449,000</td>
<td>482,000</td>
</tr>
<tr>
<td>Agriculture in Great Britain (Perm. Lab.)</td>
<td>880,000</td>
<td>776,000</td>
<td>723,000</td>
<td>691,000</td>
<td>702,000</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>694,000</td>
<td>642,000</td>
<td>594,000</td>
<td>589,000</td>
<td>590,000</td>
</tr>
<tr>
<td>Civil Service</td>
<td>310,000</td>
<td>295,000</td>
<td>352,000</td>
<td>385,000</td>
<td>426,000</td>
</tr>
<tr>
<td>Other occupations covered by the inquiry, including Commerce, Transport, etc.</td>
<td>3,585,000</td>
<td>3,500,000</td>
<td>3,341,000</td>
<td>3,235,000</td>
<td>3,218,000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>13,886,000</td>
<td>13,050,000</td>
<td>13,019,000</td>
<td>13,046,000</td>
<td>13,015,000</td>
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</tbody>
</table>
An attempt was made, also, by the Board of Trade to follow the course of the direct replacement of males by females by asking firms to state the number of females in their employ "engaged on work of a kind performed in their establishment by males before the war." Although there is much room for difference in the interpretation of this question, and figures based on the replies are, therefore, open to error in varying degrees, they probably reflect the position with substantial accuracy; no figures are available for 1915, but those for 1916, 1917 and 1918 are given in the following Table IX.

**TABLE IX.**

**Number of Females Directly Replacing Males.**

<table>
<thead>
<tr>
<th>Trade Group</th>
<th>Nos. of Females employed, July, 1914</th>
<th>Nos. of Females stated to be directly replacing Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Trades</td>
<td>7,000</td>
<td>5,300, 10,800, 11,900</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>7,000</td>
<td>3,200, 5,800, 6,900</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>170,000</td>
<td>83,900, 172,700, 194,200</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>40,000</td>
<td>12,600, 33,400, 33,700</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>863,000</td>
<td>46,300, 66,500, 65,500</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>612,000</td>
<td>23,300, 37,300, 45,900</td>
</tr>
<tr>
<td>Food Trades</td>
<td>196,000</td>
<td>37,200, 51,800, 62,600</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>147,500</td>
<td>12,800, 19,600, 21,200</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>44,000</td>
<td>11,700, 21,800, 25,600</td>
</tr>
<tr>
<td>Other Trades</td>
<td>89,500</td>
<td>26,200, 43,400, 46,000</td>
</tr>
<tr>
<td>Total Industries under Private Ownership</td>
<td>2,176,000</td>
<td>267,500, 463,100, 513,500</td>
</tr>
<tr>
<td>Government Establishments (including arsenals, dockyards, national shell filling and projectile factories, etc.)</td>
<td>2,000</td>
<td>69,000, 191,000, 187,000</td>
</tr>
<tr>
<td>Total Industries and Government Establishments</td>
<td>2,178,000</td>
<td>336,500, 654,100, 700,500</td>
</tr>
<tr>
<td>Transport (excluding tramways under Local Authorities)</td>
<td>17,000</td>
<td>36,000, 74,000, 79,500</td>
</tr>
<tr>
<td><strong>Finance and Commerce.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking and Finance</td>
<td>9,500</td>
<td>26,000, 53,000, 59,500</td>
</tr>
<tr>
<td>Commerce</td>
<td>496,000</td>
<td>219,000, 328,000, 352,000</td>
</tr>
<tr>
<td>Total Finance and Commerce</td>
<td>505,500</td>
<td>245,000, 381,000, 411,500</td>
</tr>
<tr>
<td>Professional Occupation (Employed persons, i.e., except in the case of hospitals, mainly Clerks)</td>
<td>50,500</td>
<td>11,000, 16,000, 22,500</td>
</tr>
<tr>
<td>Hotels, Public-houses, Cinemas, Theatres, etc.</td>
<td>181,000</td>
<td>32,000, 39,000, 44,500</td>
</tr>
</tbody>
</table>
In order to ascertain whether there was a shortage in the supply of female labour for particular industries, employers were asked by the Board of Trade, from 1916 onwards, to state whether they were able to obtain as many women as they required. The following Table X., which shows the percentage of negative answers, is of interest.

### TABLE X.

#### PERCENTAGE OF FIRMS REPORTING A SHORTAGE OF FEMALE LABOUR.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>July, 1916</th>
<th>July, 1917</th>
<th>July, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrial Occupations—</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal Trades</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>38</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>20</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Food Trades</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>17</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous Trades</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Other Occupations—</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking and Finance</td>
<td>9</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Entertainment</td>
<td>18</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Professions</td>
<td>10</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Wholesale and Retail Drapers, Haberdashers, Clothiers, etc.</td>
<td>24</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Wholesale and Retail Grocers, Bakers and Confectioners</td>
<td>9</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Wholesale and Retail Butchers, Fishmongers and Dairymen</td>
<td>15</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Wholesale and Retail Stationers, Booksellers, etc.</td>
<td>14</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Retail Boot and Shoe Shops</td>
<td>22</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Retail Chemist Shops</td>
<td>14</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>
It will be seen that any shortage of women was confined almost entirely to those trades in which women were normally employed. It should be observed, however, that there was a tendency particularly in these trades for firms to report a shortage if unable to obtain women of the particular type and degree of experience desired, even although unskilled workers may at the same time have been available.

III. Increased Employment of Juveniles.

It has already been suggested in Chapter II, that part of the replacement of males during the war period can be accounted for by an addition to the number of boys entering employment at an early age, and it has been shown in Table IV., relating to age groups of males, how the proportion of boys increased. A considerable proportion of the additional females drawn into employment were also girls of under 18 years of age. The annual increase in the employment of juveniles of both sexes is shown in the following Table XI., excluding figures for 1915, which are unfortunately not available.

IV. Growth in Labour Demand.

It is evident from the previous tables, which show the inflow of male labour and the increased employment of women and juveniles, that there was, throughout the war period, a steady growth in the demand for labour and a consequent reduction in unemployment. After the first few months of the war it became apparent that there was a definite shortage of male labour for every class of employment, and that, in addition, as shown in Table X., there was actually an insufficient supply of female labour to satisfy the demands of certain industries. In order, therefore, to meet the general demand for labour throughout the country the activities of the Employment Department of the Board of Trade (and subsequently of the newly created Ministry of Labour) were greatly increased, and the supply of labour was as far as possible administered and regulated by the Employment Exchanges, working when necessary in co-operation with the Ministry of Munitions and the Department of National Service.

Although the demand for labour was general throughout all classes of employment, it was naturally centred in particular in those industries which were mainly engaged on the manufacture of munitions. As the programmes for the supply of munitions were steadily increased, so a sufficient supply of labour to maintain the required output became more and more important, and not only were a very large number of unskilled workers absorbed into the munition trades, but it became necessary also to transfer skilled workers from the less essential industries. In Table XII. (pp. 39-43), some idea is given of the growth in the demand and supply of labour for certain industries affected by the manufacture of munitions, and in addition for ship-
# TABLE XI.

## Increase in the Employment of Boys and Girls under 18.

<table>
<thead>
<tr>
<th>TRADE GROUP</th>
<th>BOYS.</th>
<th>GIRLS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Numbers Employed July, 1914.</td>
<td>Increase (+) or Decrease (-) from July, 1914, up to</td>
</tr>
<tr>
<td>Building Trades</td>
<td>53,000</td>
<td>-13,000</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>151,000</td>
<td>-26,800</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>193,000</td>
<td>+80,700</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>14,000</td>
<td>+4,900</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>123,000</td>
<td>-6,600</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>42,000</td>
<td>-900</td>
</tr>
<tr>
<td>Food Trades</td>
<td>38,000</td>
<td>+5,900</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>41,000</td>
<td>-8,400</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>33,000</td>
<td>-1,500</td>
</tr>
<tr>
<td>Other Trades</td>
<td>46,000</td>
<td>+3,400</td>
</tr>
<tr>
<td>Total Industries (under private ownership)</td>
<td>734,000</td>
<td>+37,700</td>
</tr>
<tr>
<td>Government Establishments (including Arsenals, Dockyards, National Shell Filling and Projectile Factories, etc.)</td>
<td>3,000</td>
<td>+13,700</td>
</tr>
<tr>
<td>Total Industries and Government Establishments</td>
<td>737,000</td>
<td>+51,400</td>
</tr>
<tr>
<td>TRADE GROUP.</td>
<td>BOYS.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Numbers Employed July, 1914.</td>
<td>Increase (+) or Decrease (-) from July, 1914, up to</td>
</tr>
<tr>
<td>Transport under Private ownership (excluding Railways)</td>
<td>27,000</td>
<td>+ 4,300</td>
</tr>
<tr>
<td>Finance and Commerce—Banking and Finance</td>
<td>10,000</td>
<td>+ 3,100</td>
</tr>
<tr>
<td>Commerce</td>
<td>238,000</td>
<td>- 22,400</td>
</tr>
<tr>
<td>Total Finance and Commerce</td>
<td>248,000</td>
<td>- 19,300</td>
</tr>
<tr>
<td>Professional Occupations (mainly clerks)</td>
<td>13,000</td>
<td>+ 5,000</td>
</tr>
<tr>
<td>Hotels, Public-houses, Cinemas, Theatres, etc.</td>
<td>15,000</td>
<td>+ 5,300</td>
</tr>
<tr>
<td>Civil Service—Post Office</td>
<td>17,000</td>
<td>- 800</td>
</tr>
<tr>
<td>Other Civil Service</td>
<td>4,000</td>
<td>- 100</td>
</tr>
<tr>
<td>Total Civil Service</td>
<td>21,000</td>
<td>- 900</td>
</tr>
<tr>
<td>Local Government, including Education, Municipal Tramways, Gas, Water and Electricity</td>
<td>12,000</td>
<td>-</td>
</tr>
<tr>
<td>Total for above occupations</td>
<td>1,073,000</td>
<td>+ 45,800</td>
</tr>
</tbody>
</table>

**NOTE.**—Agriculture has been omitted owing to the fact that during the earlier years juveniles were considered as under 14 instead of 18 years of age.
building. The figures show for quarterly periods throughout 1914–1918 inclusive the number of vacancies notified, registrations and vacancies filled by the Employment Exchanges, the classification, which is occupational, being that in use by the Employment Department of the Ministry of Labour.

In studying Table XII., it should be remembered that demands for labour were to a certain extent satisfied by the employment of workpeople taken on direct at factory gates, and that to this extent the Exchange figures as shown in the table are incomplete. It must be pointed out also that the figures for “registrations” in no sense measure the available supply of efficient labour, for, as will be seen, although the number of “registrations” exceed in practically every case the number of vacancies notified, yet the number of vacancies filled were not sufficient to meet the demand. The reason is that, when the demand for munitions workers became urgent, a large number of persons from all classes responded to the Government’s appeal, with the result that the registrations, more particularly in the case of females, cover many who were totally unfitted for this type of employment, and whose services it was never possible to utilise in the production of munitions. In order to trace the course of the demand and supply it is necessary, therefore, to make a comparison only between the number of vacancies notified and the number filled.

It will be seen that in mechanical engineering, which is by far the largest group of occupations affected by the manufacture of munitions, the number of male vacancies notified rose from only 130,835 during 1914 to 269,185 in 1918, while taking only the second quarter of each of these years the difference is even more marked, the figures amounting to 29,163 and 72,829 respectively. Similarly, the female vacancies notified rose at an even more rapid rate from only 619 during the second pre-war quarter of 1914 to the high figure of 44,167 during the second quarter of 1918; the demand being maintained at the highest rate during the latter half of 1916 and the early part of 1917, when the volume of munition work was increasing daily and the policy of dilution was being steadily introduced. In the case of males the vacancies filled amounted in 1914 to roughly 81 per cent. of the vacancies notified, falling to 68 per cent. in 1915, with an increase to 78 per cent. in 1916, and a fall again to 77 and 71 per cent. in 1917 and 1918 respectively. As regards females, the number of vacancies filled was not far short of the number notified, and the supply seems to have been sufficient even to meet the enormously increased demand. In other miscellaneous metal trades the number of male vacancies notified increased from 6,959 in 1914 to 28,370 in 1918, and in these trades the shortage of male labour was more acute, for the vacancies filled were less than 55 per cent. of the vacancies notified during 1915 and 1916, rising to roughly 65 per cent., during 1917 and 1918. The number of female vacancies notified in these occupations also rose from 4,623 in 1914 to 16,639 in 1917, with a slight fall to 15,177 in 1918, but the supply was well maintained, and the vacancies filled were in every year over 80 per cent.
of the vacancies notified, while in 1917 they amounted to over 90 per cent.

The most marked feature in the figures for the chemical trades is the enormous growth in the demand for female labour, which, even by 1915, exceeded the demand for male labour. The number of male vacancies notified increased from 4,606 in 1914 to 50,111 in 1917, when the demand was highest, but this rate of increase is slow compared to the corresponding increase from 2,220 to 187,215 in the case of females. During 1916, as a result largely of the demand for female labour for the National Filling Factories established by the Ministry of Munitions, the number of vacancies notified rose to 158,985, as compared with only 15,588 in 1915, a demand which was well maintained until the end of 1917, when a reduction in the filling programme of the Ministry caused a temporary slackening off which lasted until the German offensive in the spring of 1918 made it necessary to re-enlist labour to speed up production in order to make good losses. The percentage of vacancies filled to the number notified indicates throughout that the available supply of female labour was never far short of the demand, but in the case of males the percentage of vacancies filled to those notified varied from 76 to 86, the percentage being lowest in 1915 and 1916 and highest in 1917.

The demand for labour for shipbuilding never regained its pre-war position, for the number of male vacancies notified, which amounted in 1914 to 90,804, fell steadily to only 40,238 in 1917, with a recovery to only 65,162 in 1918.\(^1\) The number of vacancies filled varied from 76 per cent. to 67 per cent. of the vacancies notified, the percentage being highest in 1915 and lowest in 1917. During the early years there was no appreciable demand for female labour, but by 1916 the number of vacancies notified amounted to 2,061, with an increase to 2,741 by 1918, and throughout a high percentage of the vacancies was filled.

It has already been stated that the actual process of the supply of labour was administered by the Employment Exchanges, but the whole question of the balance between the demand and the supply of labour was of such great complexity that many and various schemes were brought into force by the different Government Departments concerned, in order to regulate and maintain a sufficient supply of men for service with H.M. Forces on the one hand, and for the manufacture of munitions on the other. It is not within the scope of this wide survey to inquire into the administration and results of such schemes, which are discussed elsewhere.\(^2\) In Chapter IV., however, which follows, tables will be found which show the extraordinary expansion in the proportion of workers employed on all classes of government work, as apart from private work, and also the remarkable rate of increase in the volume of labour employed in the production and distribution of munitions.

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1 This low demand was probably due to the known impossibility of filling vacancies.
2 See Vols. IV. and VI.
### TABLE XII.

**Employment Exchanges. Vacancies Notified, Registrations, and Vacancies Filled in Certain Industries, 1914.**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Quarter ending</th>
<th>Mar. 13†</th>
<th>June 12</th>
<th>Sept. 11</th>
<th>Dec. 11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mechanical Engineering.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>18,446</td>
<td>29,163</td>
<td>34,851</td>
<td>48,375</td>
<td>130,835</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>387</td>
<td>619</td>
<td>687</td>
<td>1,971</td>
<td>3,664</td>
<td></td>
</tr>
<tr>
<td>Registrations—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>62,330</td>
<td>100,208</td>
<td>172,000</td>
<td>113,161</td>
<td>447,699</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>878</td>
<td>1,203</td>
<td>3,871</td>
<td>4,582</td>
<td>10,534</td>
<td></td>
</tr>
<tr>
<td>Vacancies Filled—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>15,549</td>
<td>24,301</td>
<td>29,261</td>
<td>37,479</td>
<td>106,590</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>329</td>
<td>536</td>
<td>463</td>
<td>1,520</td>
<td>2,848</td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous Metal Trades.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1,004</td>
<td>1,385</td>
<td>1,779</td>
<td>2,791</td>
<td>6,959</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>802</td>
<td>1,219</td>
<td>1,138</td>
<td>1,464</td>
<td>4,623</td>
<td></td>
</tr>
<tr>
<td>Registrations—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1,631</td>
<td>2,359</td>
<td>3,336</td>
<td>2,734</td>
<td>10,060</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>1,331</td>
<td>1,984</td>
<td>1,968</td>
<td>2,522</td>
<td>7,805</td>
<td></td>
</tr>
<tr>
<td>Vacancies Filled—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>685</td>
<td>973</td>
<td>995</td>
<td>1,318</td>
<td>3,971</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>669</td>
<td>988</td>
<td>987</td>
<td>1,204</td>
<td>3,848</td>
<td></td>
</tr>
<tr>
<td><strong>Chemicals, Explosives, Oil,</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grease, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>692</td>
<td>1,041</td>
<td>1,266</td>
<td>1,607</td>
<td>4,606</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>410</td>
<td>531</td>
<td>535</td>
<td>744</td>
<td>2,220</td>
<td></td>
</tr>
<tr>
<td>Registrations—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>627</td>
<td>862</td>
<td>1,142</td>
<td>888</td>
<td>3,519</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>452</td>
<td>675</td>
<td>946</td>
<td>957</td>
<td>3,030</td>
<td></td>
</tr>
<tr>
<td>Vacancies Filled—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>620</td>
<td>962</td>
<td>1,075</td>
<td>1,141</td>
<td>3,798</td>
<td></td>
</tr>
<tr>
<td>Females</td>
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* The figures for Shipbuilding and Engineering include workpeople following occupations or trades which in the main belong to these two industries, although the workpeople are not insurable against unemployment.
† Includes from mid-Jan.—March 13 only.
TABLE XII.—continued.

EMPLOYMENT EXCHANGES. VACANCIES NOTIFIED, REGISTRATIONS, AND VACANCIES FILLED IN CERTAIN INDUSTRIES, 1915.

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* The figures for Shipbuilding and Engineering include workpeople following occupations or trades which in the main belong to these two industries, although the workpeople are not insurable against unemployment.
### TABLE XII.—continued.

**Employment Exchanges. Vacancies Notified, Registrations, and Vacancies Filled in Certain Industries, 1916.**

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*The figures for Shipbuilding and Engineering include workpeople following occupations or trades which in the main belong to these two industries, although the workpeople are not insurable against unemployment.*
TABLE XII.—continued.

EMPLOYMENT EXCHANGES. VACANCIES NOTIFIED, REGISTRATIONS, AND VACANCIES FILLED IN CERTAIN INDUSTRIES, 1917.

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<td>18,052</td>
</tr>
<tr>
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<td>3,957</td>
<td>4,657</td>
<td>3,579</td>
<td>3,096</td>
<td>15,289</td>
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<td><strong>Chemicals,</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Explosives, Oil,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grease, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>14,718</td>
<td>13,167</td>
<td>11,085</td>
<td>11,141</td>
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<tr>
<td>Females</td>
<td>67,436</td>
<td>42,832</td>
<td>41,976</td>
<td>34,971</td>
<td>187,215</td>
</tr>
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<td>Registrations—</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Males</td>
<td>16,568</td>
<td>13,189</td>
<td>11,245</td>
<td>13,706</td>
<td>54,108</td>
</tr>
<tr>
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<td>192,234</td>
<td>147,452</td>
<td>131,503</td>
<td>114,750</td>
<td>585,939</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Males</td>
<td>13,283</td>
<td>10,926</td>
<td>9,021</td>
<td>9,740</td>
<td>42,970</td>
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<td>65,816</td>
<td>44,596</td>
<td>40,988</td>
<td>34,432</td>
<td>85,832</td>
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<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>8,783</td>
<td>10,864</td>
<td>8,976</td>
<td>11,615</td>
<td>40,238</td>
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<td>642</td>
<td>793</td>
<td>472</td>
<td>427</td>
<td>2,334</td>
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<tr>
<td>Registrations—</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>9,376</td>
<td>11,080</td>
<td>9,601</td>
<td>11,849</td>
<td>41,906</td>
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<td>1,140</td>
<td>1,438</td>
<td>1,430</td>
<td>1,090</td>
<td>5,098</td>
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<td>Vacancies Filled—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>6,049</td>
<td>7,407</td>
<td>5,953</td>
<td>7,571</td>
<td>26,980</td>
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<tr>
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<td>582</td>
<td>781</td>
<td>468</td>
<td>415</td>
<td>2,246</td>
</tr>
</tbody>
</table>

* The figures for Shipbuilding and Engineering include workpeople following occupations or trades which in the main belong to these two industries, although the workpeople are not insurable against unemployment.
### CHANGES IN EMPLOYMENT

**TABLE XII.**—continued.

**Employment Exchanges. Vacancies Notified, Registrations, and Vacancies Filled in Certain Industries, 1918.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* Mechanical Engineering.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacancies Notified—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>64,485</td>
<td>72,829</td>
<td>69,095</td>
<td>62,776</td>
<td>269,185</td>
</tr>
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<td>Females</td>
<td>38,419</td>
<td>44,167</td>
<td>47,121</td>
<td>31,824</td>
<td>161,531</td>
</tr>
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<td>75,335</td>
<td>80,806</td>
<td>75,998</td>
<td>85,097</td>
<td>317,236</td>
</tr>
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<td>Females</td>
<td>65,254</td>
<td>72,660</td>
<td>74,406</td>
<td>71,687</td>
<td>284,007</td>
</tr>
<tr>
<td>Vacancies Filled—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>47,088</td>
<td>52,321</td>
<td>49,351</td>
<td>43,787</td>
<td>192,547</td>
</tr>
<tr>
<td>Females</td>
<td>36,927</td>
<td>41,567</td>
<td>44,575</td>
<td>29,019</td>
<td>152,088</td>
</tr>
</tbody>
</table>

| Miscellaneous Metal Trades. |         |         |          |         |        |
| Vacancies Notified— |         |         |          |         |        |
| Males | 5,530   | 7,373   | 8,963    | 6,504   | 28,370 |
| Females | 3,233   | 3,976   | 4,606    | 3,362   | 15,177 |
| Registrations— |         |         |          |         |        |
| Males | 5,778   | 5,020   | 6,203    | 6,291   | 23,292 |
| Females | 6,028   | 6,721   | 6,672    | 7,477   | 26,898 |
| Vacancies Filled— |         |         |          |         |        |
| Males | 3,693   | 4,328   | 5,586    | 4,236   | 17,843 |
| Females | 2,706   | 3,270   | 4,208    | 2,691   | 12,875 |

| Chemicals, Explosives, Oil, Grease, etc. |         |         |          |         |        |
| Vacancies Notified— |         |         |          |         |        |
| Males | 9,295   | 8,587   | 10,156   | 8,562   | 36,600 |
| Females | 20,279  | 26,560  | 41,199   | 23,459  | 111,597 |
| Registrations— |         |         |          |         |        |
| Males | 12,993  | 15,213  | 14,855   | 11,657  | 54,718 |
| Females | 91,849  | 93,345  | 101,588  | 79,019  | 365,801 |
| Vacancies Filled— |         |         |          |         |        |
| Males | 7,757   | 7,447   | 8,059    | 6,895   | 30,158 |
| Females | 19,865  | 24,976  | 38,752   | 23,458  | 106,851 |

| * Shipbuilding. |         |         |          |         |        |
| Vacancies Notified— |         |         |          |         |        |
| Males | 17,633  | 17,700  | 14,911   | 14,918  | 65,162 |
| Females | 447     | 833     | 875      | 586     | 2,741  |
| Registrations— |         |         |          |         |        |
| Males | 14,370  | 18,089  | 15,513   | 15,813  | 63,785 |
| Females | 992     | 1,631   | 1,460    | 1,200   | 5,283  |
| Vacancies Filled— |         |         |          |         |        |
| Males | 9,978   | 14,500  | 10,507   | 10,283  | 45,268 |
| Females | 439     | 765     | 835      | 542     | 2,581  |

* The figures for Shipbuilding and Engineering include workpeople following occupations or trades which in the main belong to these two industries, although the workpeople are not insurable against unemployment.
CHAPTER IV.

GOVERNMENT WORK AND THE MUNITION INDUSTRIES.

I. Government Work.

In the two previous chapters the more general changes effected by the war on all classes of employment have already been shown, but no attempt has been made to analyse to what extent labour was engaged for the Government on the production and distribution of goods required either directly or indirectly for the maintenance of war. During the whole of the war period the demands of the Government upon industry steadily increased, and although these fell naturally most heavily upon the metal and chemical trades, owing to the enormous demand for munitions, other industries such as coal-mining and the wood, clothing and food trades were also affected. It is estimated that the proportion of the numbers employed in all occupations covered by the Z8 inquiry engaged on production and distribution for the British and Allied Governments rose from roughly one-fourth in July, 1915, to roughly one-half in July, 1918. In industrial concerns alone it is estimated that approximately three-fifths of the workpeople were by July, 1918, engaged on government work. In the following Table XIII. estimates are given (a) of the number of males; (b) of the number of females; and (c) of the total number of the workpeople engaged on government work in each July of the war period and the percentage of such to the total numbers employed, including those on private work.

It will be seen that by July, 1918, it is estimated that no less than 3,428,000 males and 1,536,000 females were employed on government work in industrial concerns, and that of these 2,046,000 males and 825,000 females were engaged on work in the metal and chemical trades and in government establishments, the industries mainly affected by the growth of munition work. This leaves a balance of 1,382,000 males and 711,000 females for all other industries which covers for the most part various classes of work indirectly subsidiary to the actual manufacture of munitions, and also work in connection with the clothing and feeding of members of H.M. Forces whose requirements were formerly met by the civilian markets; in addition, in 1918 government work includes also the provision of certain food-stuffs which were under government control, although ultimately consumed by the civilian population.

It is a remarkable feature of the war period, especially during the last years, that so small a proportion of the labour of the country devoted to meeting the needs of the civil population was in fact so successful in providing for them. One explanation of the situation lies in the fact that previous to the war large numbers, even of those employed in productive trades, were on work which was at least relatively unimportant, and these were able to constitute a reserve
<table>
<thead>
<tr>
<th>INDUSTRIES</th>
<th>JULY, 1915</th>
<th>JULY, 1916</th>
<th>JULY, 1917</th>
<th>JULY, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>140,000</td>
<td>129,000</td>
<td>119,000</td>
<td>109,000</td>
</tr>
<tr>
<td>Mines</td>
<td>2,900</td>
<td>2,600</td>
<td>2,300</td>
<td>2,000</td>
</tr>
<tr>
<td>Metals</td>
<td>2,000</td>
<td>1,700</td>
<td>1,400</td>
<td>1,100</td>
</tr>
<tr>
<td>Chemicals</td>
<td>3,000</td>
<td>2,700</td>
<td>2,400</td>
<td>2,100</td>
</tr>
<tr>
<td>Textiles</td>
<td>1,000</td>
<td>900</td>
<td>800</td>
<td>700</td>
</tr>
<tr>
<td>Clothing</td>
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<td>800</td>
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<tr>
<td>Trades</td>
<td>1,500</td>
<td>1,200</td>
<td>1,000</td>
<td>800</td>
</tr>
<tr>
<td>Food</td>
<td>2,000</td>
<td>1,700</td>
<td>1,400</td>
<td>1,100</td>
</tr>
<tr>
<td>Drink and Tobacco</td>
<td>1,500</td>
<td>1,200</td>
<td>1,000</td>
<td>800</td>
</tr>
<tr>
<td>Paper</td>
<td>1,500</td>
<td>1,200</td>
<td>1,000</td>
<td>800</td>
</tr>
<tr>
<td>Wood</td>
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<td>800</td>
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<tr>
<td>Other</td>
<td>1,500</td>
<td>1,200</td>
<td>1,000</td>
<td>800</td>
</tr>
<tr>
<td>Total Industries (under private ownership)</td>
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<td>2,045,000</td>
<td>1,912,000</td>
<td>1,780,000</td>
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<td>Government Establishments</td>
<td>151,000</td>
<td>145,000</td>
<td>140,000</td>
<td>135,000</td>
</tr>
<tr>
<td>Total Industries (including Government Establishments)</td>
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<td>2,190,000</td>
<td>2,052,000</td>
<td>1,915,000</td>
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</table>
### TABLE XIII. — continued.

(b) **FEMALES EMPLOYED ON GOVERNMENT WORK.**

<table>
<thead>
<tr>
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<th>JULY, 1915</th>
<th></th>
<th>JULY, 1916</th>
<th></th>
<th>JULY, 1917</th>
<th></th>
<th>JULY, 1918</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Numbers</td>
<td>%</td>
<td>Numbers</td>
<td>%</td>
<td>Numbers</td>
<td>%</td>
<td>Numbers</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td></td>
<td>Employed</td>
<td></td>
<td>Employed</td>
<td></td>
<td>Employed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>on Government Work</td>
<td></td>
<td>on Government Work</td>
<td></td>
<td>on Government Work</td>
<td></td>
<td>on Government Work</td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>1,000</td>
<td>13·3</td>
<td>6,000</td>
<td>60·0</td>
<td>14,000</td>
<td>70·0</td>
<td>18,000</td>
<td>62·1</td>
</tr>
<tr>
<td>Mines</td>
<td>-2,000</td>
<td>30·8</td>
<td>3,000</td>
<td>27·3</td>
<td>5,000</td>
<td>41·7</td>
<td>6,000</td>
<td>46·2</td>
</tr>
<tr>
<td>Metals</td>
<td>121,000</td>
<td>59·6</td>
<td>259,000</td>
<td>70·0</td>
<td>437,000</td>
<td>83·5</td>
<td>534,000</td>
<td>89·8</td>
</tr>
<tr>
<td>Chemicals</td>
<td>9,000</td>
<td>18·7</td>
<td>44,000</td>
<td>50·5</td>
<td>64,000</td>
<td>58·7</td>
<td>66,000</td>
<td>63·4</td>
</tr>
<tr>
<td>Textiles</td>
<td>226,000</td>
<td>25·4</td>
<td>220,000</td>
<td>24·2</td>
<td>281,000</td>
<td>31·8</td>
<td>335,000</td>
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<tr>
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<td>88,000</td>
<td>14·0</td>
<td>97,000</td>
<td>16·9</td>
<td>142,000</td>
<td>25·0</td>
</tr>
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<td>Food, Drink and Tobacco</td>
<td>32,000</td>
<td>15·3</td>
<td>32,000</td>
<td>13·8</td>
<td>38,000</td>
<td>16·8</td>
<td>57,000</td>
<td>24·2</td>
</tr>
<tr>
<td>Paper Trades</td>
<td>15,000</td>
<td>10·8</td>
<td>22,000</td>
<td>15·1</td>
<td>35,000</td>
<td>24·4</td>
<td>40,000</td>
<td>28·3</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>12,000</td>
<td>25·0</td>
<td>16,000</td>
<td>28·5</td>
<td>30,000</td>
<td>44·1</td>
<td>40,000</td>
<td>50·6</td>
</tr>
<tr>
<td>Other Trades</td>
<td>37,000</td>
<td>35·4</td>
<td>44,000</td>
<td>36·2</td>
<td>59,000</td>
<td>42·6</td>
<td>73,000</td>
<td>48·5</td>
</tr>
<tr>
<td></td>
<td>582,000</td>
<td>25·5</td>
<td>734,000</td>
<td>28·8</td>
<td>1,060,000</td>
<td>39·4</td>
<td>1,311,000</td>
<td>47·8</td>
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<td>Total Industries (under private ownership)</td>
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<td>72,000</td>
<td>100·0</td>
<td>206,000</td>
<td>100·0</td>
<td>225,000</td>
<td>100·0</td>
</tr>
<tr>
<td>Government Establishments</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Industries (including Government Establishments)</td>
<td>588,000</td>
<td>25·6</td>
<td>806,000</td>
<td>30·8</td>
<td>1,266,000</td>
<td>43·5</td>
<td>1,536,000</td>
<td>51·8</td>
</tr>
</tbody>
</table>

**Per cent.**
TABLE XIII.—continued.

**(c) Total Workpeople Employed on Government Work.**

<table>
<thead>
<tr>
<th>INDUSTRIES</th>
<th>JULY, 1915</th>
<th>JULY, 1916</th>
<th>JULY, 1917</th>
<th>JULY, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Numbers Employed on Government Work</td>
<td>Percentage to Total Numbers Employed</td>
<td>Numbers Employed on Government Work</td>
<td>Percentage to Total Numbers Employed</td>
</tr>
<tr>
<td>Building</td>
<td>141,000</td>
<td>19.8</td>
<td>207,000</td>
<td>36.4</td>
</tr>
<tr>
<td>Mines</td>
<td>299,000</td>
<td>28.1</td>
<td>561,000</td>
<td>52.3</td>
</tr>
<tr>
<td>Metals</td>
<td>1,297,000</td>
<td>73.0</td>
<td>1,694,000</td>
<td>81.6</td>
</tr>
<tr>
<td>Chemicals</td>
<td>79,000</td>
<td>37.8</td>
<td>156,000</td>
<td>59.4</td>
</tr>
<tr>
<td>Textiles</td>
<td>385,000</td>
<td>26.6</td>
<td>344,000</td>
<td>24.5</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>206,000</td>
<td>23.0</td>
<td>143,000</td>
<td>17.2</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>68,000</td>
<td>12.7</td>
<td>62,000</td>
<td>11.8</td>
</tr>
<tr>
<td>Paper Trades</td>
<td>35,000</td>
<td>10.5</td>
<td>44,000</td>
<td>13.2</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>92,000</td>
<td>35.8</td>
<td>92,000</td>
<td>36.7</td>
</tr>
<tr>
<td>Other Trades</td>
<td>168,000</td>
<td>38.6</td>
<td>175,000</td>
<td>42.4</td>
</tr>
<tr>
<td><strong>Total Industries (under private ownership)</strong></td>
<td>2,770,000</td>
<td>36.1</td>
<td>3,478,000</td>
<td>44.9</td>
</tr>
<tr>
<td>Government Establishments</td>
<td>157,000</td>
<td>100.0</td>
<td>277,000</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total Industries (including Government Establishments)</strong></td>
<td>2,927,000</td>
<td>37.3</td>
<td>3,755,000</td>
<td>46.8</td>
</tr>
</tbody>
</table>
from which both H.M. Forces and the more essential trades were able to draw. For instance, the drop of 78,000 persons in the total number of persons employed in the food group of trades, as shown in Chapter III., Table VI. (a), is due to the extent of 71,000 to the reduction in the confectionery and the drink trades. In the textile and clothing trades it is harder to distinguish between those employed on the more and the less essential forms of production, but it appears that much economy in labour was effected by standardisation of the type of work produced. In other industries, also, this argument may be said to hold good, for there is little doubt that a considerably increased output per head was effected in many factories by a reduction in the variety of the goods produced. Although the population was less well supplied with minor necessities and luxuries, and was also less well housed than before the war, it is surprising that on the whole the supply of both clothing and food, if not abundant, was sufficient to meet the needs of the nation throughout the entire period.

II. The Munition Industries.

To attempt to state accurately the number of workpeople employed on "the manufacture of munitions" at different periods of the war is impossible. The term "munitions" has never been strictly defined, and it may be taken in the narrower sense to cover the manufacture of destructive munitions only, or it may be taken to include also all industries subsidiary and essential to the production of destructive munitions, such as the iron and steel trades, the manufacture of machine tools, etc. In its widest sense even, it may be taken to cover all occupations over which the control of the Ministry of Munitions was exercised, and even coal mining, transport, etc., including thus every kind of work indirectly essential to the needs of war.

(a) Metal and Chemical Trades.

No comprehensive and continuous inquiry as to the total number of munition workers employed was carried out by the Ministry of Munitions. The most enlightening comparative figures which can be quoted, therefore, are again the Z8 figures relating to the total number of workpeople employed in all government establishments and on government work in private concerns in the metal and chemical trades; and it seems probable that the expansion year by year, as shown in the following Table XIV., does in fact outline very broadly the growth in employment on what may be generally termed munition work. The figures without doubt exclude a small number of workpeople outside these groups of industry who were also employed either directly or indirectly in connection with munition work, but, on the other hand, they include a number of workpeople who, although employed in these groups, were not exclusively employed on any class of munition work; for example, they include workpeople engaged on the production of agricultural machinery, hardware and hollowware, etc., in the metal trades, and in the production of soap, candles, varnish, etc., in the chemical trades.
TABLE XIV.

NUMBER EMPLOYED IN GOVERNMENT ESTABLISHMENTS AND ON GOVERNMENT WORK IN THE METAL AND CHEMICAL TRADES.

<table>
<thead>
<tr>
<th>Year</th>
<th>Numbers employed on Government work in the Metal and Chemical trades and in all Government Establishments.</th>
<th>Percentage to total numbers employed on all classes of work in the Metal and Chemical trades and in all Government Establishments.</th>
<th>Percentage to total numbers employed in all classes of work in every group of industry, including Government Establishments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>April, 1915</td>
<td>1,009,000</td>
<td>78,000</td>
<td>1,087,000</td>
</tr>
<tr>
<td>July, 1915</td>
<td>1,397,000</td>
<td>136,000</td>
<td>1,533,000</td>
</tr>
<tr>
<td>July, 1916</td>
<td>1,752,000</td>
<td>375,000</td>
<td>2,127,000</td>
</tr>
<tr>
<td>July, 1917</td>
<td>1,923,000</td>
<td>707,000</td>
<td>2,630,000</td>
</tr>
<tr>
<td>July, 1918</td>
<td>2,046,000</td>
<td>825,000</td>
<td>2,871,000</td>
</tr>
</tbody>
</table>

No reliable figures for government work are available earlier than for July, 1915, but it was just at this date after the establishment of the Ministry of Munitions that the great boom of munition orders materialised. In the earliest months of the war the magnitude of the munitions problem was not realised, and even after the shortage was recognised attempts were made to augment the supplies by the ordinary methods of speeding up contracts and gradually developing the agents of supply. How little the labour problem was recognised at the very first is plain from the fact that skilled engineers were allowed to enlist freely and that the percentage of men who left the engineering and shipbuilding firms was well above the average percentage of enlistment from industry as a whole. Large numbers of men enlisted even from firms already occupied on munition contracts, and there is little doubt that, during the first few months, the labour in the country capable of producing munitions either directly or indirectly suffered a serious diminution. Early in 1915, however, the War Office realised the vital importance of the munitions problem, the rate of enlistment began to slacken, skilled men were returned from the Forces, and the transference of engineers from private to government work was well on its way. It will be seen from Table XIV. that in July, 1915, in government establishments and the metal and chemical trades the percentage of those on government work amounted to 74 for males and 53 for females. Unfortunately no corresponding percentages for July, 1914, are available, but there is little doubt that before the war the proportion on government work was very small, and it seems doubtful whether the total number of workers engaged before the war on the production of munitions could have amounted at the very most to more than, say, 50,000.

In 1915 the efforts of the War Office and Ministry of Munitions began to materialise and the engineering resources of the nation were mobilised. New factories were built on a wholesale scale, while old
factories were reorganised and the greater part of the metal working industries and a certain proportion of the chemical industries were brought under the control of Government for the purpose of producing enormous quantities of munitions at the greatest possible speed. The immediate effect on labour was of course a continued increase in the numbers engaged on government work, and the large extent to which men were drawn to munition work is evident from the fact that by July, 1915, roughly one-quarter and in July, 1916, one-third of the total males engaged in all industrial concerns were employed either in government establishments or on government work in the metal and chemical trades. Even so, the shortage of skilled men for these groups of industry became more and more apparent, and dilution by means of the employment of women made such rapid progress that by July, 1916, the number of women in these industries on government work had increased to 375,000, or more than double the number a year previously.

During the two subsequent years the demands of the Ministry of Munitions continued steadily to increase in every direction, and, in spite of the continuous demand for men for H.M. Forces, there was a steady increase in the numbers employed in government establishments and on government work in the metal and chemical trades. Control was exercised over the rate of conscription of men on essential work, and those who did leave to join H.M. Forces were more than replaced in numbers by substitutes drawn from private work and, to a small extent, by specially skilled men released from the Forces in order to become munition workers. In addition the employment of women increased steadily throughout and every effort was made to organise dilution wherever it was feasible.

Any attempt to estimate the number of munition workers, as such, who enlisted during the different years of the war is obviously impossible. In studying the increase in employment in government establishments and on government work in the metal and chemical trades it is, however, interesting to refer to the figures in Chapter III., Table VI., which show for each year the corresponding rate of enlistment from these groups of industry.

It is unfortunate that, although particulars are available for the whole war period from the Z8 inquiry as to the numbers employed in different groups of industry such as the metal and chemical trades, etc., classified according to pre-war production, no statistics were obtained until 1918 as to what proportion of these were in fact engaged on different classes of munition work such as the production of guns, ammunition, small arms, etc. Any comparable records throughout of the numbers employed, classified to correspond with the various programmes of the Ministry, are therefore impossible.

No attempt was made, either, by the Board of Trade, prior to 1918, to ascertain from employers a classification of their numbers employed on government work according to the several Departments for which they were working. In order, however, that some idea of the
respective strength of those engaged on work for the Admiralty and those in other classes of munition work might be obtained, rough estimates were made from time to time in which the proportion of Admiralty work was based on information supplied by controlled establishments and on figures showing the growth of employment in Admiralty dockyards and in private shipbuilding and marine engineering firms. In the following Table XV. a very rough estimate is given of the numbers employed in government establishments, excluding dockyards, and on all government work in the metal and chemical trades, excluding work for the Admiralty.

### TABLE XV.

**Numbers Employed in Government Establishments and on Government Work in the Metal and Chemical Trades, excluding Dockyards and Admiralty Work.**

<table>
<thead>
<tr>
<th></th>
<th>Males.</th>
<th>Females.</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td>July, 1915</td>
<td>865,000</td>
<td>126,000</td>
<td>991,000</td>
</tr>
<tr>
<td>July, 1916</td>
<td>1,135,000</td>
<td>340,000</td>
<td>1,475,000</td>
</tr>
<tr>
<td>July, 1917</td>
<td>1,250,000</td>
<td>630,000</td>
<td>1,880,000</td>
</tr>
<tr>
<td>July, 1918</td>
<td>1,274,000</td>
<td>710,000</td>
<td>1,984,000</td>
</tr>
</tbody>
</table>

**(b) Badged Firms.**

As already stated, no comprehensive statistical inquiry was held by the Labour Department of the Ministry of Munitions at regular intervals as regards the total strength of munitions labour except in the case of controlled establishments. On the other hand, special statistical material was collected from time to time from which it was considered possible to extract any desired arrangement of figures. In 1916, 1917 and 1918 a series of returns was required from firms whose male employees were "protected" from military service. The first of these inquiries, which was held in May, 1916, covered about 12,000 firms, and related to all male employees over 16, with separate figures for the number of "badged men" and subdivision of "badged men" of military age. A second inquiry held in October, 1916, and covering about 20,000 firms, required a detailed analysis by age and degree of skill of "badged men," while a third inquiry held in December, 1916, also covering about 20,000 firms, required a similar analysis of "unbadged men" and a separate statement of the number of females employed. The combined results of these last two inquiries are shown in a summarised form in Table XVI, which follows.
TABLE XVI.
NUMBERS EMPLOYED IN BADGED FIRMS,
OCTOBER AND DECEMBER, 1916.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Works of Construction</td>
<td>31,979</td>
<td>8,401</td>
</tr>
<tr>
<td>Quarries</td>
<td>7,670</td>
<td>2,308</td>
</tr>
<tr>
<td>Metals and Metal Products</td>
<td>241,244</td>
<td>104,173</td>
</tr>
<tr>
<td>Machinery Plant and Tools</td>
<td>177,871</td>
<td>65,702</td>
</tr>
<tr>
<td>Chemical and Allied Products</td>
<td>84,232</td>
<td>49,412</td>
</tr>
<tr>
<td>Arms and Ammunition</td>
<td>179,486</td>
<td>111,576</td>
</tr>
<tr>
<td>Shipbuilding</td>
<td>220,107</td>
<td>86,688</td>
</tr>
<tr>
<td>Vehicles</td>
<td>46,839</td>
<td>21,557</td>
</tr>
<tr>
<td>Aeronautics</td>
<td>43,414</td>
<td>15,913</td>
</tr>
<tr>
<td>Leather</td>
<td>11,292</td>
<td>3,032</td>
</tr>
<tr>
<td>Timber and Woodwork</td>
<td>32,370</td>
<td>6,779</td>
</tr>
<tr>
<td>Medical Supply</td>
<td>10,171</td>
<td>2,587</td>
</tr>
<tr>
<td>Manufacture not otherwise classified</td>
<td>53,460</td>
<td>14,718</td>
</tr>
<tr>
<td>Professional Occupations</td>
<td>4,140</td>
<td>1,007</td>
</tr>
<tr>
<td>Transport</td>
<td>10,399</td>
<td>3,737</td>
</tr>
<tr>
<td>Public Utilities</td>
<td>13,967</td>
<td>7,571</td>
</tr>
<tr>
<td>Officials</td>
<td>8,777</td>
<td>11,377</td>
</tr>
<tr>
<td>Total</td>
<td>1,177,418</td>
<td>516,538</td>
</tr>
</tbody>
</table>

| Military Age                        | 698,587        | 274,718          | 145,462     | 1,118,767|                |
| Under and Over Military Age         | 478,831        | 241,820          | 273,478     | 994,129 |                |

(c) Protected Firms.

In May, 1917, after the system of protection by means of the "Schedule of Protected Occupations for Men Employed on Admiralty, War Office or Munition work or in Railway Workshops" had been brought into force, an inquiry (H.M. 825) was held by the munition area offices covering those firms, numbering about 27,000, which were "protected" under the "Munition Area Release Scheme." From this a full return of staff was obtained showing detailed information as regards age, occupation, address, protection status, degree of skill, etc., for each male aged 16 and upwards, together with summary figures of boys under 16 and female employees. In Table XVII, which follows, figures are given showing the summarised results as regards the number of males over 18 employed, the number of men of military age, the number of boys under 18, and the number of females.

In order to ascertain the approximate proportion of the labour employed in "protected firms" which was on work for the Admiralty, a special analysis was made of the number of workers employed in firms under the control of the Admiralty Shipyard Labour Department, classified as Admiralty "A" and Admiralty "B." Admiralty "A" firms were those in which more than 70 per cent. of the labour employed was engaged on work for the Admiralty, while "B" firms were those
### GOVERNMENT WORK

#### TABLE XVII.

**Numbers Employed in Protected Firms, 1917.**

<table>
<thead>
<tr>
<th></th>
<th>Men of Military Age</th>
<th>Men over Military Age</th>
<th>Boys</th>
<th>Total Males</th>
<th>Females</th>
<th>Total Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Works of Construction</td>
<td>25,805</td>
<td>35,957</td>
<td>2,334</td>
<td>64,096</td>
<td>3,729</td>
<td>67,825</td>
</tr>
<tr>
<td>Quarries</td>
<td>6,613</td>
<td>6,925</td>
<td>854</td>
<td>14,392</td>
<td>853</td>
<td>15,245</td>
</tr>
<tr>
<td>Metals and Metal Products</td>
<td>246,481</td>
<td>172,660</td>
<td>35,121</td>
<td>454,262</td>
<td>89,534</td>
<td>543,796</td>
</tr>
<tr>
<td>Machinery Plant and Tools</td>
<td>177,541</td>
<td>119,625</td>
<td>30,513</td>
<td>327,679</td>
<td>89,882</td>
<td>417,561</td>
</tr>
<tr>
<td>Chemical and Allied Products</td>
<td>104,402</td>
<td>109,755</td>
<td>10,824</td>
<td>224,981</td>
<td>64,333</td>
<td>289,314</td>
</tr>
<tr>
<td>Arms and Ammunition</td>
<td>224,185</td>
<td>159,577</td>
<td>34,266</td>
<td>418,028</td>
<td>336,140</td>
<td>754,168</td>
</tr>
<tr>
<td>Shipbuilding</td>
<td>193,722</td>
<td>120,940</td>
<td>21,898</td>
<td>336,560</td>
<td>28,805</td>
<td>365,365</td>
</tr>
<tr>
<td>Vehicles</td>
<td>48,868</td>
<td>29,409</td>
<td>6,908</td>
<td>85,153</td>
<td>17,009</td>
<td>102,194</td>
</tr>
<tr>
<td>Aeronautics</td>
<td>58,142</td>
<td>31,156</td>
<td>5,948</td>
<td>95,264</td>
<td>41,963</td>
<td>137,209</td>
</tr>
<tr>
<td>Leather</td>
<td>9,544</td>
<td>10,926</td>
<td>2,162</td>
<td>22,632</td>
<td>11,367</td>
<td>33,999</td>
</tr>
<tr>
<td>Timber and Woodwork</td>
<td>26,810</td>
<td>27,313</td>
<td>6,519</td>
<td>60,642</td>
<td>28,939</td>
<td>89,581</td>
</tr>
<tr>
<td>Medical Supply</td>
<td>7,618</td>
<td>7,212</td>
<td>1,979</td>
<td>16,809</td>
<td>14,176</td>
<td>30,985</td>
</tr>
<tr>
<td>Manufacture not otherwise classified</td>
<td>38,386</td>
<td>45,962</td>
<td>13,009</td>
<td>97,357</td>
<td>116,908</td>
<td>214,265</td>
</tr>
<tr>
<td>Professional Occupations</td>
<td>2,920</td>
<td>2,686</td>
<td>420</td>
<td>6,026</td>
<td>3,187</td>
<td>9,213</td>
</tr>
<tr>
<td>Transport</td>
<td>10,058</td>
<td>9,222</td>
<td>1,064</td>
<td>20,344</td>
<td>1,669</td>
<td>22,013</td>
</tr>
<tr>
<td>Public Utilities</td>
<td>12,934</td>
<td>10,786</td>
<td>1,265</td>
<td>24,985</td>
<td>4,450</td>
<td>29,435</td>
</tr>
<tr>
<td>Officials</td>
<td>6,150</td>
<td>6,427</td>
<td>449</td>
<td>13,026</td>
<td>19,299</td>
<td>32,325</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>1,200,179</strong></td>
<td><strong>906,538</strong></td>
<td><strong>175,533</strong></td>
<td><strong>2,282,250</strong></td>
<td><strong>872,243</strong></td>
<td><strong>3,154,493</strong></td>
</tr>
</tbody>
</table>

Other than "A" in which the numbers working for the Admiralty amounted to not less than 25 per cent. of the total employed. In Admiralty "A" firms it was estimated there were employed at the end of 1917 457,200 males, of whom 26,500 were boys and 276,600 men of military age, and 46,800 females; while in "B" it was estimated there were 199,800 males, of whom 14,000 were boys and 113,100 men of military age, and 53,300 females.

In the late autumn of 1917 it was decided by the Labour Department of the Ministry of Munitions that a regular inquiry into the state of employment in "protected firms" was essential. From January, 1918, onwards, therefore, a special tabulation of these firms was made periodically from the returns L31 for controlled establishments and from returns Z8 for uncontrolled establishments supplied for the purpose by the Board of Trade. The classification adopted was according to the nature of work on which firms were employed at the date of the return, with reference also to the Government Department for which the firms were producing. In the following Table XVIII. the results are shown covering employment in all "protected firms" in January, 1918, particulars being given of the numbers employed on work for the British Government as apart from those on work for the Allied Governments and those on private work.
### TABLE XVIII.

**Numbers Employed in Protected Firms, January, 1918.**

<table>
<thead>
<tr>
<th></th>
<th>Metal Trades.</th>
<th>Chemical Trades.</th>
<th>Miscellaneous</th>
<th>Total.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Work for British Government—</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1,636,951</td>
<td>189,571</td>
<td>401,346</td>
<td>2,227,868</td>
</tr>
<tr>
<td>Females</td>
<td>547,675</td>
<td>143,599</td>
<td>194,939</td>
<td>886,213</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,184,626</td>
<td>333,170</td>
<td>596,285</td>
<td>3,114,081</td>
</tr>
<tr>
<td><strong>On Work for Allied Governments—</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>39,482</td>
<td>1,830</td>
<td>4,938</td>
<td>46,250</td>
</tr>
<tr>
<td>Females</td>
<td>6,770</td>
<td>587</td>
<td>4,183</td>
<td>11,540</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>46,252</td>
<td>2,417</td>
<td>9,121</td>
<td>57,790</td>
</tr>
<tr>
<td><strong>On Private Work—</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>74,647</td>
<td>16,215</td>
<td>69,572</td>
<td>160,434</td>
</tr>
<tr>
<td>Females</td>
<td>33,410</td>
<td>9,608</td>
<td>41,116</td>
<td>84,134</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>108,057</td>
<td>25,823</td>
<td>110,688</td>
<td>244,568</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>1,751,080</td>
<td>207,616</td>
<td>475,856</td>
<td>2,434,552</td>
</tr>
<tr>
<td>Females</td>
<td>587,855</td>
<td>153,794</td>
<td>240,238</td>
<td>981,887</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>2,338,935</td>
<td>361,410</td>
<td>716,094</td>
<td>3,416,439</td>
</tr>
</tbody>
</table>

In addition to this analysis of the total numbers employed in protected firms, a further analysis was also made of the numbers employed on government work. In Table XIX. (p. 55) estimates are shown for the numbers employed throughout 1918 in national factories (Ministry of Munitions), in Admiralty dockyards, and on government work in the metal, chemical and rubber trades in “protected firms,” and it will be found that these do not differ materially from the similar estimate shown in Table XIII. as to the numbers employed in July, 1918, in government establishments and on all government work in all firms in the metal and chemical trades. The figures are analysed in the first place according to the Government Department for which the firms were producing, while in the case of the Ministry of Munitions, estimates, classified to correspond as far as possible with the activities of the various supply departments, have also been made. No figures are available for October, 1918, but estimated figures are included for August and September.
<table>
<thead>
<tr>
<th></th>
<th>JANUARY</th>
<th></th>
<th>APRIL</th>
<th></th>
<th>JULY</th>
<th></th>
<th>AUGUST</th>
<th></th>
<th>SEPTEMBER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
</tr>
<tr>
<td>Ministry of Munitions—Gun Ammunition—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture</td>
<td>189·6</td>
<td>190·6</td>
<td>370·2</td>
<td>189·3</td>
<td>183·5</td>
<td>372·8</td>
<td>183·7</td>
<td>186·3</td>
<td>373·0</td>
<td>187·6</td>
</tr>
<tr>
<td>Filling</td>
<td>29·5</td>
<td>63·3</td>
<td>91·8</td>
<td>27·8</td>
<td>55·8</td>
<td>83·6</td>
<td>29·7</td>
<td>66·7</td>
<td>96·4</td>
<td>30·1</td>
</tr>
<tr>
<td>Total</td>
<td>218·1</td>
<td>253·9</td>
<td>472·0</td>
<td>217·1</td>
<td>239·3</td>
<td>456·4</td>
<td>216·4</td>
<td>253·0</td>
<td>469·4</td>
<td>217·7</td>
</tr>
<tr>
<td>Ordnance</td>
<td>60·0</td>
<td>19·4</td>
<td>88·4</td>
<td>68·4</td>
<td>18·2</td>
<td>86·6</td>
<td>67·6</td>
<td>19·6</td>
<td>87·2</td>
<td>66·8</td>
</tr>
<tr>
<td>Rifles, Machine Guns, etc.</td>
<td>32·4</td>
<td>8·4</td>
<td>40·8</td>
<td>32·4</td>
<td>9·0</td>
<td>41·4</td>
<td>32·7</td>
<td>9·1</td>
<td>41·8</td>
<td>32·5</td>
</tr>
<tr>
<td>S.A.A.</td>
<td>10·7</td>
<td>27·5</td>
<td>38·2</td>
<td>15·9</td>
<td>27·5</td>
<td>43·4</td>
<td>15·5</td>
<td>31·9</td>
<td>47·4</td>
<td>15·3</td>
</tr>
<tr>
<td>Total</td>
<td>122·5</td>
<td>25·5</td>
<td>148·0</td>
<td>17·4</td>
<td>32·9</td>
<td>211·3</td>
<td>22·4</td>
<td>34·3</td>
<td>24·3</td>
<td>23·4</td>
</tr>
<tr>
<td>Trench Warfare (other than chemical substances)</td>
<td>22·2</td>
<td>25·4</td>
<td>47·6</td>
<td>33·5</td>
<td>27·4</td>
<td>71·0</td>
<td>23·4</td>
<td>37·8</td>
<td>26·2</td>
<td>34·5</td>
</tr>
<tr>
<td>Explosives and Chemicals</td>
<td>122·2</td>
<td>137·8</td>
<td>260·0</td>
<td>125·5</td>
<td>58·2</td>
<td>183·7</td>
<td>129·8</td>
<td>63·8</td>
<td>193·6</td>
<td>131·4</td>
</tr>
<tr>
<td>Aeronautical Supplies</td>
<td>11·2</td>
<td>14·0</td>
<td>25·2</td>
<td>12·3</td>
<td>3·3</td>
<td>15·6</td>
<td>11·9</td>
<td>3·8</td>
<td>15·7</td>
<td>11·6</td>
</tr>
<tr>
<td>Mechanical Warfare</td>
<td>19·9</td>
<td>2·9</td>
<td>22·8</td>
<td>19·5</td>
<td>2·8</td>
<td>22·3</td>
<td>19·4</td>
<td>3·1</td>
<td>22·5</td>
<td>19·5</td>
</tr>
<tr>
<td>Railway Materials</td>
<td>6·0</td>
<td>3·0</td>
<td>9·0</td>
<td>6·1</td>
<td>3·4</td>
<td>9·5</td>
<td>6·2</td>
<td>4·0</td>
<td>10·2</td>
<td>6·3</td>
</tr>
<tr>
<td>Optical Mgunions and Glass</td>
<td>41·2</td>
<td>17·0</td>
<td>58·2</td>
<td>41·5</td>
<td>18·3</td>
<td>59·8</td>
<td>41·2</td>
<td>18·9</td>
<td>60·1</td>
<td>41·3</td>
</tr>
<tr>
<td>Mechanical Transport</td>
<td>35·6</td>
<td>8·3</td>
<td>43·9</td>
<td>34·8</td>
<td>9·5</td>
<td>43·3</td>
<td>34·3</td>
<td>10·5</td>
<td>44·8</td>
<td>34·3</td>
</tr>
<tr>
<td>Iron and Steel</td>
<td>19·5</td>
<td>2·6</td>
<td>22·1</td>
<td>21·6</td>
<td>6·3</td>
<td>27·9</td>
<td>20·3</td>
<td>6·6</td>
<td>26·9</td>
<td>20·7</td>
</tr>
<tr>
<td>Non-Ferrous Metals</td>
<td>17·5</td>
<td>4·1</td>
<td>21·6</td>
<td>17·0</td>
<td>4·0</td>
<td>17·0</td>
<td>17·0</td>
<td>40·7</td>
<td>57·7</td>
<td>17·1</td>
</tr>
<tr>
<td>Total, Ministry of Munitions</td>
<td>1,032·7</td>
<td>583·4</td>
<td>1,616·1</td>
<td>1,923·7</td>
<td>3,546·8</td>
<td>1,012·5</td>
<td>604·2</td>
<td>1,616·7</td>
<td>1,015·1</td>
<td>605·1</td>
</tr>
</tbody>
</table>

The figures for each month refer approximately to the end of the month.
(d) Controlled Establishments.

It has already been stated that in the case of those establishments "controlled" under section I. of the Munitions of War Amendment Act, 1916, a regular return (L31) relating to the state of employment was called for by the Labour Department of the Ministry of Munitions, the first available results of which, as shown in the printed Reports on Labour in Controlled Establishments, relate to September, 1916, and the last to January, 1918. In Table XX. (p. 57), comparative figures are given for various dates for the total number of workpeople employed in controlled establishments, including controlled government establishments, with percentages also showing the expansion in employment in these establishments since July, 1914. It should be noted throughout that the figures refer to those controlled establishments only which made a return, and that no allowance has been made for the small percentage of establishments which failed to reply to the questionnaire. In the case of government establishments under the control of the Ministry of Munitions the replies were practically exhaustive, but in the case of other controlled establishments a note has been inserted as to the percentage of firms which made a return. Owing to the fact that different branches of the same firms, which in the official List of Controlled Establishments may have appeared as several different establishments, in certain cases made only one return from the head office, the total number of returns called for as shown in the table does not indicate the actual number of establishments listed as controlled at the date in question.

Information was also obtained by the Ministry of Munitions as the result of questionnaire L31 as to the proportion of the employees in controlled establishments who were engaged directly or indirectly on work for the British and Allied Governments respectively. It should be remembered, however, that the figures only refer to the destination of the work as known to the manufacturers, and work placed by the British Government for Allied Governments has been reckoned presumably as work for the British Government. In Table XXI. (pp. 58 and 59) figures are given for all those controlled establishments, other than government establishments, which replied to the questionnaire, showing the proportion of workpeople employed on work for the Admiralty, War Office and Ministry of Munitions, and on all work for the British Government; the proportions on work for Allied Governments, and the proportion on other government work; while a small balance is also shown for establishments which failed to make any definite reply as to the destination of their output. In the case of all controlled government establishments, which does not include Admiralty dockyards, it seems safe to assume that production was either for the Ministry of Munitions or the War Office, and that the proportion of Admiralty work or work for the Allies was very small.
<table>
<thead>
<tr>
<th>Number of Establishments replying to Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>86 Government Establishments (3,607 other Controlled Establishments—95% of total).</td>
</tr>
<tr>
<td>Males—Under 18</td>
</tr>
<tr>
<td>Over 18</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Females—Under 18</td>
</tr>
<tr>
<td>Over 18</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Grand Total</td>
</tr>
<tr>
<td>Percentage increase since July, 1914, in numbers of workpeople employed</td>
</tr>
</tbody>
</table>

*In the case of government establishments, the number failing to make a return was small and the figures from the last available returns were tabulated. In the case of other controlled establishments, a percentage is shown for the number of establishments whose returns were included, the total being the number of establishments to which the L31 questionnaire was circulated.*
<table>
<thead>
<tr>
<th>Date</th>
<th>October, 1916</th>
<th>January, 1917</th>
<th>April, 1917</th>
<th>July, 1917</th>
<th>October, 1917</th>
<th>January, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>On work for the British Government.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For the Admiralty—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>309,992</td>
<td>309,887</td>
<td>329,793</td>
<td>342,942</td>
<td>359,995</td>
<td>428,322</td>
</tr>
<tr>
<td>Females</td>
<td>27,427</td>
<td>28,090</td>
<td>37,640</td>
<td>43,946</td>
<td>46,969</td>
<td>51,570</td>
</tr>
<tr>
<td>For the War Office and Ministry of Munitions—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>411,360</td>
<td>396,820</td>
<td>395,771</td>
<td>414,909</td>
<td>420,889</td>
<td>476,232*</td>
</tr>
<tr>
<td>Females</td>
<td>140,229</td>
<td>155,559</td>
<td>163,176</td>
<td>196,607</td>
<td>203,234</td>
<td>235,072*</td>
</tr>
<tr>
<td>For Government Departments (unspecified)—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>166,026</td>
<td>183,383</td>
<td>179,350</td>
<td>191,319</td>
<td>186,135</td>
<td>187,803</td>
</tr>
<tr>
<td>Females</td>
<td>52,172</td>
<td>63,916</td>
<td>59,258</td>
<td>61,550</td>
<td>65,010</td>
<td>67,063</td>
</tr>
<tr>
<td>Total</td>
<td>1,107,206</td>
<td>1,137,655</td>
<td>1,164,988</td>
<td>1,251,273</td>
<td>1,282,232</td>
<td>1,446,062</td>
</tr>
<tr>
<td>Percentage of grand total.</td>
<td>(66·8%)</td>
<td>(69·0%)</td>
<td>(69·3%)</td>
<td>(68·8%)</td>
<td>(68·5%)</td>
<td>(75·3%)</td>
</tr>
<tr>
<td>On work for Allied Governments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>43,997</td>
<td>34,348</td>
<td>36,469</td>
<td>34,553</td>
<td>31,900</td>
<td>21,643</td>
</tr>
<tr>
<td>Females</td>
<td>11,681</td>
<td>11,266</td>
<td>9,964</td>
<td>13,417</td>
<td>12,491</td>
<td>6,104</td>
</tr>
<tr>
<td>Total</td>
<td>55,678</td>
<td>45,614</td>
<td>46,433</td>
<td>47,970</td>
<td>44,391</td>
<td>27,747</td>
</tr>
<tr>
<td>Percentage of grand total.</td>
<td>(3·4%)</td>
<td>(2·8%)</td>
<td>(2·8%)</td>
<td>(2·6%)</td>
<td>(2·3%)</td>
<td>(1·4%)</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
<td>------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Government work uns-</td>
<td>177,087</td>
<td>27,653</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specified.</td>
<td>177,936</td>
<td>28,319</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>177,399</td>
<td>37,021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>205,623</td>
<td>46,569</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>226,674</td>
<td>55,261</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204,740</td>
<td>246,421</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of grand</td>
<td>(12.3%)</td>
<td>(12.6%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>(12.5%)</td>
<td>(12.8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(13.9%)</td>
<td>(15.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(13.9%)</td>
<td>(15.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not on Government work.</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>118,793</td>
<td>33,940</td>
</tr>
<tr>
<td></td>
<td>111,696</td>
<td>31,765</td>
</tr>
<tr>
<td></td>
<td>97,682</td>
<td>31,938</td>
</tr>
<tr>
<td></td>
<td>103,239</td>
<td>38,662</td>
</tr>
<tr>
<td></td>
<td>94,341</td>
<td>35,477</td>
</tr>
<tr>
<td>Total</td>
<td>152,733</td>
<td>17,843</td>
</tr>
<tr>
<td>Percentage of grand</td>
<td>(9.3%)</td>
<td>(3.0%)</td>
</tr>
<tr>
<td>total</td>
<td>(8.7%)</td>
<td>(6.9%)</td>
</tr>
<tr>
<td></td>
<td>(7.7%)</td>
<td>(6.8%)</td>
</tr>
<tr>
<td></td>
<td>(7.7%)</td>
<td>(6.8%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unspecified.</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>116,628</td>
<td>20,044</td>
</tr>
<tr>
<td></td>
<td>96,484</td>
<td>19,292</td>
</tr>
<tr>
<td></td>
<td>105,848</td>
<td>18,591</td>
</tr>
<tr>
<td></td>
<td>103,221</td>
<td>23,232</td>
</tr>
<tr>
<td></td>
<td>102,708</td>
<td>24,719</td>
</tr>
<tr>
<td>Total</td>
<td>136,672</td>
<td>37,205</td>
</tr>
<tr>
<td>Percentage of grand</td>
<td>(8.3%)</td>
<td>(7.4%)</td>
</tr>
<tr>
<td>total</td>
<td>(7.0%)</td>
<td>(6.9%)</td>
</tr>
<tr>
<td></td>
<td>(7.4%)</td>
<td>(6.9%)</td>
</tr>
<tr>
<td></td>
<td>(7.7%)</td>
<td>(7.7%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grand Total.</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,343,883</td>
<td>313,146</td>
</tr>
<tr>
<td></td>
<td>1,310,554</td>
<td>338,207</td>
</tr>
<tr>
<td></td>
<td>1,322,309</td>
<td>357,608</td>
</tr>
<tr>
<td></td>
<td>1,395,806</td>
<td>423,983</td>
</tr>
<tr>
<td></td>
<td>1,422,642</td>
<td>443,161</td>
</tr>
<tr>
<td></td>
<td>1,468,769</td>
<td>463,390</td>
</tr>
<tr>
<td>Total</td>
<td>1,657,029</td>
<td>1,865,803</td>
</tr>
<tr>
<td></td>
<td>1,648,761</td>
<td>1,932,159</td>
</tr>
<tr>
<td></td>
<td>1,679,917</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,819,789</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,865,803</td>
<td></td>
</tr>
</tbody>
</table>

* Including 119,928 males and 46,269 females stated to be on work for the Air Service.
(e) Government Establishments.

Figures have already been shown in Chapters II. and III. for the total numbers employed throughout the war period in all government establishments. In Table XXII. (p. 61) more detailed figures are given showing the numbers employed, analysed according to whether the establishments were working for the Admiralty, the Ministry of Munitions, or the War Office. The figures for the Ministry of Munitions include, for July, 1914, and July, 1915, employment in the permanent Royal Factories at Woolwich, Waltham Abbey and Enfield, which were then manufacturing armaments for the War Office, but which were subsequently transferred to the authority of the Ministry of Munitions after the creation of that Department in 1915. In the case of certain other national factories, figures are also included for July, 1914, and July, 1915, although at that time these factories were still private establishments. More detailed figures are also given in Table XXIII, for all the different classes of national factories which were under the administrative authority of the Ministry of Munitions in 1918. It will be seen that during the first year of the war the expansion in employment in national factories was due almost wholly to the growth in the numbers employed in the Royal Factories, and that it was not until 1915 and 1916, after the efforts of the Ministry of Munitions had begun to materialise, that the large numbers of workers employed in such new classes of factories as National Shell, National Projectile, National Filling, etc., became a remarkable feature of munitions employment.
### TABLE XXII.

**Analysis of Employment in Government Establishments.**

<table>
<thead>
<tr>
<th>Department</th>
<th>July, 1914.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Admiralty Dockyards, etc.</td>
<td>53,870</td>
<td>440</td>
<td>54,310</td>
<td>67,100</td>
<td>900</td>
<td>68,000</td>
<td>71,000</td>
<td>3,100</td>
<td>74,100</td>
<td>79,800</td>
<td>7,900</td>
</tr>
<tr>
<td>Ministry of Munitions Establish-</td>
<td>18,340</td>
<td>320</td>
<td>18,660</td>
<td>67,300</td>
<td>2,400</td>
<td>69,700</td>
<td>117,600</td>
<td>64,600</td>
<td>182,200</td>
<td>145,700</td>
<td>191,100</td>
</tr>
<tr>
<td>ments, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>War Office Establishments and</td>
<td>4,100</td>
<td>1,450</td>
<td>5,550</td>
<td>17,000</td>
<td>2,700</td>
<td>19,700</td>
<td>15,900</td>
<td>4,700</td>
<td>20,600</td>
<td>17,500</td>
<td>6,600</td>
</tr>
<tr>
<td>Stores, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76,310</td>
<td>2,210</td>
<td>78,520</td>
<td>151,400</td>
<td>6,000</td>
<td>157,400</td>
<td>204,500</td>
<td>72,400</td>
<td>276,900</td>
<td>243,000</td>
<td>205,600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Employment:**
- Males: 76,310
- Females: 2,210
- Total: 78,520
**TABLE XXIII.**

**ANALYSIS OF EMPLOYMENT IN MINISTRY OF MUNITIONS ESTABLISHMENTS.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Ordnance Factories, Woolwich</td>
<td>10,760</td>
<td>10</td>
<td>10,770</td>
<td>45,220</td>
<td>350</td>
</tr>
<tr>
<td>Royal Gunpowder Factory, Waltham Abbey</td>
<td>900</td>
<td>-</td>
<td>900</td>
<td>3,330</td>
<td>-</td>
</tr>
<tr>
<td>Royal Small Arms Factory, Enfield</td>
<td>1,840</td>
<td>-</td>
<td>1,840</td>
<td>7,350</td>
<td>-</td>
</tr>
<tr>
<td>National Filling Factories</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>National Projectile Factories</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>National Ordnance Factories</td>
<td>-</td>
<td>-</td>
<td>150</td>
<td>10</td>
<td>160</td>
</tr>
<tr>
<td>National Shell Factories</td>
<td>250</td>
<td>-</td>
<td>250</td>
<td>580</td>
<td>90</td>
</tr>
<tr>
<td>H.M. Factories (Explosives, etc.)</td>
<td>180</td>
<td>-</td>
<td>180</td>
<td>230</td>
<td>-</td>
</tr>
<tr>
<td>Inspection Department</td>
<td>1,620</td>
<td>-</td>
<td>1,620</td>
<td>5,650</td>
<td>1,000</td>
</tr>
<tr>
<td>Aircraft Factories</td>
<td>1,940</td>
<td>110</td>
<td>2,050</td>
<td>3,330</td>
<td>490</td>
</tr>
<tr>
<td>Aeronautical Inspection Department</td>
<td>50</td>
<td>-</td>
<td>50</td>
<td>510</td>
<td>40</td>
</tr>
<tr>
<td>Miscellaneous Factories (Boxes,</td>
<td>800</td>
<td>200</td>
<td>1,000</td>
<td>990</td>
<td>450</td>
</tr>
<tr>
<td>Telephones, Storage, etc.)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18,340</td>
<td>320</td>
<td>18,660</td>
<td>67,340</td>
<td>2,430</td>
</tr>
</tbody>
</table>
III. Conclusion.

From the various figures shown in the previous paragraphs, it will be seen that by the end of the war the number of workers engaged either directly or indirectly on the production of munitions, taking this term in a wide sense to represent all occupations covered by the Schedule of Protected Occupations, amounted to over 3,400,000. Further, it will be seen that, even taking munition work in its narrower sense as representing only those workers engaged in government establishments and in the metal and chemical trades, there were by July, 1918, as many as 2,046,000 males and 825,000 females, or 2,871,000 workers, employed on this class of government work, or more than a third of the total number of workers employed on government and private work in every class of industry.

That one of the chief difficulties to be faced at the cessation of hostilities was the demobilisation of this large body of munition workers was realised early in 1918, and the question was considered by the Demobilisation and Resettlement Committee of the Ministry of Munitions, who at the beginning of May, 1918, forwarded a memorandum on the subject to the Minister of Reconstruction. In this it was shown, taking the Z8 returns of the Board of Trade for October, 1917, the latest figures then available as a basis, that there were at that time 2,228,000 males and 878,000 females employed in the metal and chemical trades, including government establishments, of whom roughly 90 per cent. were employed on government work. Of these 3,106,000 workpeople, 691,000 males and 524,000 females were estimated to be employed in the manufacture of military stores or munitions proper, such as guns, shells, aeroplanes, etc., while 1,537,000 males and 354,000 females were estimated to be employed in the manufacture of goods which could be used or adapted for peace purposes, such as ships, iron, steel, and other materials, machinery, hardware, etc. A provisional estimate was then also made showing 180,000 males and 65,000 females as the number of workpeople who might be expected to continue to find employment on munitions proper after the war (the assumption being made that one-half of the numbers employed on aircraft production would continue). The probable displacement of persons employed on munition work proper was estimated, therefore, at 511,000 males and 459,000 females, or roughly nearly 1,000,000 persons. In the following Chapter V. estimates are made of the changes which actually did occur during the first six months after the signing of the Armistice, and it is interesting to see as far as is possible to what extent the anticipation of a displacement of 1,000,000 workers was in effect realised.
CHAPTER V.

EMPLOYMENT DURING THE FIRST SIX MONTHS AFTER THE ARMISTICE.

I. The Course of Employment, November, 1918—April, 1919.

At the end of April, 1919, a report was issued by the Board of Trade, in continuation of the similar reports issued during the war, and a similar report issued in January, 1919. One important change in the treatment of the Z8 returns should, however, be noted. In reports issued during the war, concerns were classified throughout according to their normal trade before the war, while in this report and that for January, 1919, they were classified afresh for each date according to their principal form of production at the time. A change in the numbers employed in a certain trade, as shown in this report, therefore, does not necessarily signify any change in the numbers employed by individual firms which may have altered their type of output, and therefore their trade group, without altering their personnel. On the whole, however, the firms whose main products altered in kind so greatly as to change the trade in which they were classified were surprisingly few. On the other hand, it must be remembered that during the war munitions were made, to some extent, in many factories in addition to those principally devoted to their production; while conversely, after the Armistice some munition factories, besides those which altered the character of their main output, started to produce other goods to a minor degree.

In Table XXIV. (pp. 66–68) is shown the number of males and females employed in each of the main groups on 11 November, 1918, and at the end of January and April, 1919, with the percentage change between the date of the signing of the Armistice and the end of January and April, 1919, respectively.

The figures given in Table XXIV. show that while the number of men known to employers to have returned to civilian work from the Forces from the date of the Armistice to the end of April was 1,278,300 (apart from docks, for which information on this matter was not available, owing to the exceptionally casual character of most of the labour employed), the number of males employed increased by 1,148,100 (excluding docks). Thus, at least 130,200 must have been thrown out of employment in these occupations. This number includes those who ceased to be employed owing to age or disability, being replaced by the influx of young men and boys entering on their careers, many of those so entering being those who had passed through the Army, having reached military age in the course of the war.

From the figures it can be calculated that, in addition to the retirement, or relegation to employments outside the range of the table, of 130,200 men, at least a further 154,600 transferred from one to
another of the industrial and other occupational groups separately dealt with, or passed out of these forms of employment, and were replaced by equivalent numbers from outside the groups specified. Thus, at least 284,800 in the half-year dealt with ceased to be employed in the group with which they were identified at the date of the Armistice, and 1,432,900 were added to the numbers in these groups, mainly from the ranks of the demobilised. There was also a considerable amount of movement from one trade to another within the same group. Probably the number of those who returned to employment from the fighting forces is greater than is shown in the table, since there is considerable reason to suppose that employers were sometimes unaware of the fact that men in their employ had seen service, particularly in occupations other than industry, so that the influx of men from the Forces was greater than is shown. In industrial occupations this error appears to have been less, and the figures shown may be taken to indicate with substantial accuracy the total increase in the employment of men from the Forces; though they are net figures, and therefore probably considerably smaller than the gross number returning, as a considerable number of men who were reabsorbed into industry during the war were doubtless again displaced, especially those suffering from serious disablement.

The industrial and other occupational groups in which the absorption of men exceeded the numbers known to have returned from the Forces most notably were commerce, railways, building, and Local Government employment, while the metal industries were those from which the largest number were displaced. Relatively to the numbers concerned, the Civil Service, other than the Post Office, showed the greatest displacement, the number returning from the Forces being 23 per cent. of the total employed at the date of the Armistice, while the increase in male employment was, to the end of April, under 11 per cent., so that over half the absorption from the Forces was at the expense of men or boys employed in these services at the earlier date, but not at the later.

Similarly, the number of women and girls who since the beginning of November ceased to be employed in the several groups specified in Table XXIV., is not less than 759,800, increases in certain industries reducing the net loss to 716,600. In addition, 19,000 women were demobilised from the Forces. This represents a fall of only about 23 per cent. in all in the total strength of the Women's Corps. On the other hand, there was undoubtedly a considerable increase during these months in the number of women employed in domestic service.

II. Comparison with Pre-War Standards.

In Table XXV. (pp. 70–71) the numbers employed on 11 November and at the end of January and April, 1919, respectively, are shown as percentage changes since July, 1914, so that the degree to which the movement, in the six months following the signing of the Armistice, was a return to the pre-war position can be followed. It
TABLE XXIV.

EMPLOYMENT IN NOVEMBER, 1918, AND JANUARY AND APRIL, 1919.

<table>
<thead>
<tr>
<th>OCCUPATION,</th>
<th>MALES.</th>
<th></th>
<th>FEMALES.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Numbers employed in November, 1918.</td>
<td>January, 1918.</td>
<td>April, 1918.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>438,300</td>
<td>461,900</td>
<td>591,000</td>
<td>+ 5.4</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>1,039,000</td>
<td>1,147,100</td>
<td>1,223,100</td>
<td>+ 10.4</td>
</tr>
<tr>
<td>Metal Industries</td>
<td>1,872,300</td>
<td>1,753,700</td>
<td>1,908,200</td>
<td>− 6.4</td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>161,300</td>
<td>162,800</td>
<td>176,000</td>
<td>+ 0.9</td>
</tr>
<tr>
<td>Textile Industries</td>
<td>408,400</td>
<td>420,800</td>
<td>458,700</td>
<td>+ 3.0</td>
</tr>
<tr>
<td>Clothing Industries</td>
<td>181,200</td>
<td>184,000</td>
<td>222,800</td>
<td>+ 1.5</td>
</tr>
<tr>
<td>Food, Drink and Tobacco Industries</td>
<td>246,500</td>
<td>260,100</td>
<td>300,100</td>
<td>+ 5.5</td>
</tr>
<tr>
<td>Paper and Printing Industries</td>
<td>158,000</td>
<td>169,400</td>
<td>200,800</td>
<td>+ 7.2</td>
</tr>
<tr>
<td>Wood Industries</td>
<td>172,700</td>
<td>119,200</td>
<td>210,000</td>
<td>+ 3.9</td>
</tr>
<tr>
<td>Other Industries</td>
<td>251,600</td>
<td>264,100</td>
<td>304,400</td>
<td>+ 4.9</td>
</tr>
<tr>
<td>Total Industries (under private ownership)</td>
<td>4,929,300</td>
<td>5,003,100</td>
<td>5,595,100</td>
<td>+ 1.5</td>
</tr>
<tr>
<td>Gas, Water and Electricity under Local Authorities</td>
<td>53,200</td>
<td>56,300</td>
<td>62,200</td>
<td>+ 5.4</td>
</tr>
<tr>
<td>Government Establishments (Government Dockyards, arsenals, National Factories, etc.)</td>
<td>275,700</td>
<td>194,400</td>
<td>171,900</td>
<td>-29.5</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total Industries and Municipal and Government Establishments</td>
<td>5,258,200</td>
<td>5,253,800</td>
<td>5,829,200</td>
<td>-0.0</td>
</tr>
<tr>
<td>Agriculture in Great Britain (Permanent Labour)</td>
<td>578,000</td>
<td>578,200</td>
<td>630,000</td>
<td>+0.0</td>
</tr>
<tr>
<td><strong>Transport.</strong></td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Railways</td>
<td>546,000</td>
<td>558,000*</td>
<td>641,000*</td>
<td>+2.2</td>
</tr>
<tr>
<td>Docks, Wharves, etc.</td>
<td>72,600</td>
<td>78,200</td>
<td>96,700</td>
<td>+7.7</td>
</tr>
<tr>
<td>Other Transport under private ownership</td>
<td>202,100</td>
<td>214,700</td>
<td>254,300</td>
<td>+6.2</td>
</tr>
<tr>
<td>Total Transport (excluding Municipal Tramways)</td>
<td>820,700</td>
<td>850,900</td>
<td>992,000</td>
<td>+3.7</td>
</tr>
<tr>
<td>Tramways under Local Authorities</td>
<td>36,700</td>
<td>39,300</td>
<td>52,400</td>
<td>+7.0</td>
</tr>
<tr>
<td>Total Transport</td>
<td>857,400</td>
<td>890,200</td>
<td>1,044,400</td>
<td>+3.8</td>
</tr>
<tr>
<td><strong>Finance and Commerce.</strong></td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Banking and Finance</td>
<td>100,000</td>
<td>108,500</td>
<td>130,000</td>
<td>+8.5</td>
</tr>
<tr>
<td>Commerce</td>
<td>746,000</td>
<td>792,800</td>
<td>928,200</td>
<td>+6.2</td>
</tr>
<tr>
<td>Total Finance and Commerce</td>
<td>846,000</td>
<td>901,300</td>
<td>1,058,200</td>
<td>+6.5</td>
</tr>
<tr>
<td>Professional Occupations (employed persons, i.e., except in the case of Hospitals, mainly Clerks)</td>
<td>68,600</td>
<td>74,500</td>
<td>88,700</td>
<td>+8.6</td>
</tr>
</tbody>
</table>
| OCCUPATION | MALES | | | | \hline | | Numbers employed in | Percentage Contraction (—) or Expansion (+) between | Increase between November, 1918, and April, 1919, in Numbers employed known to Employers to have served with the Forces | Numbers employed in | | Numbers employed in | Percentage Contraction (—) or Expansion (+) between | \hline | \hline | Hotels, Public Houses, Cinemas, Theatres, etc. | 116,300 | 124,900 | 143,300 | + 7.4 | + 23.2 | 16,300 | 222,000 | 239,700 | 236,700 | + 8.0 | + 6.8 | \hline | \hline | Civil Service— Post Office | 108,500 | 111,100 | 135,000 | + 2.4 | + 24.4 | 32,000 | 121,000 | 120,500 | 106,400 | — 0.5 | — 12.1 | \hline | Other Civil Service | 87,200 | 86,800 | 96,200 | — 0.5 | + 10.3 | 19,700 | 113,200 | 110,800 | 106,100 | — 2.1 | — 6.3 | \hline | Total Civil Service | 195,700 | 197,900 | 231,200 | + 1.0 | + 18.1 | 51,700 | 234,200 | 231,300 | 212,500 | — 1.2 | — 9.3 | \hline | \hline | Local Government, including Education, but excluding Municipal Tramways, Gas, Water, and Electricity | 251,100 | 271,700 | 318,500 | + 8.2 | + 26.7 | 51,700 | 228,600 | 225,000 | 219,500 | — 1.6 | — 4.0 | \hline | Total for above Occupations | 8,171,300 | 8,292,500 | 9,343,500 | + 1.5 | + 14.4 | 1,278,300† | 4,946,600 | 4,460,300 | 4,230,000 | — 9.8 | — 14.5 | \hline

* Evidence of the State of Employment on Railways is scanty, and the figures shown for numbers employed in January and April, 1919, must be regarded as rough approximation only.

† Not including Docks, for which figures are not available.
will be seen that in the case of males employment increased between 11 November, 1918, and the end of April, 1919, by 11 per cent., as compared with July, 1914, or by roughly 1,170,000, making a deficit compared with the pre-war position of 1,270,000. In the case of females, employment decreased by 21.9 per cent. between 11 November and April, 1919, as compared with July, 1914, but even so the excess in the number of females employed amounted to 954,000.

It will be seen from Table XXV. that in industrial occupations (including employment in government and municipal establishments of an industrial type) it was estimated that the total number employed at the end of April was almost exactly the same as in November, 1918, and only 3 per cent. (or roughly 250,000 persons) less than in July, 1914. This total deficit, therefore, compared with the pre-war standard, was certainly much less than can be accounted for by the casualties of war, owing to the inflow into these industries during the war period of somewhere about a million males (not including men returned from the Forces) and 800,000 females. Possibly 100,000 of the men may have been previously engaged in industry as employers or workers upon their own account, but the great majority undoubtedly represented a net gain in the labour force productively employed, though their average production per head was probably below that of other workers. Such of this increase as was due to the natural growth of population may be regarded as normal, but there were also factors consequent on the war demand, boys entering industry earlier than usual, elderly men postponing or returning from retirement, the relatively unfit or incapable finding employment, women new to industrial employment entering industry and in general all persons so desiring finding regular work. All these, whether in themselves desirable or not, were not characteristic of the normal state of industry before the war, and in addition the check in emigration added to the numbers of the labour market. In spite, therefore, of the casualties in the field, by April, 1919, more than sufficient labour to carry on the pre-war volume of trade was available, and it was due to this rather than to any general depression of trade that exceptional unemployment existed.

The number of men over 18 in industrial employment appears to have dropped by a number considerably less than the probable casualties among men enlisting. In April, 1919, there were about 620,000 fewer men over 18 years of age in industrial employment than before the war. The enlistments from these occupations amounted to about 2,853,000, and it might be expected that somewhere about 2,000,000 would return. The difference between a fall in adult males of 620,000 and the fall of 250,000 persons is accounted for by an excess of about 220,000 over the pre-war figure in the case of females and 150,000 in the case of boys. This is in spite of the fact that since November over 581,000 females and more than 50,000 boys left industrial employment.
### TABLE XXV.

**Employment in November, 1918, and January and April, 1919, as compared with July, 1914.**

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>MALES</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>FEMALES</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numbers employed in July, 1914.</strong></td>
<td><strong>Percentage Contraction (−) or Expansion (+) from July, 1914, up to</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Numbers employed in July, 1914.</strong></td>
<td><strong>Percentage Contraction (−) or Expansion (+) from July, 1914.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td><strong>November, 1918.</strong></td>
<td><strong>January, 1919.</strong></td>
<td><strong>April, 1919.</strong></td>
<td></td>
<td><strong>November, 1918.</strong></td>
<td><strong>January, 1919.</strong></td>
<td><strong>April, 1919.</strong></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>920,000</td>
<td>-52.4</td>
<td>-49.8</td>
<td>-35.8</td>
<td>7,000</td>
<td>+348.0</td>
<td>+207.0</td>
<td>+104.0</td>
<td></td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>1,266,000</td>
<td>-18.0</td>
<td>-9.4</td>
<td>-3.4</td>
<td>7,000</td>
<td>+78.6</td>
<td>+72.8</td>
<td>+71.4</td>
<td></td>
</tr>
<tr>
<td>Metal Industries</td>
<td>1,634,000</td>
<td>+14.6</td>
<td>+7.3</td>
<td>+16.8</td>
<td>170,000</td>
<td>+250.0</td>
<td>+114.0</td>
<td>+76.7</td>
<td></td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>159,000</td>
<td>+1.4</td>
<td>+2.4</td>
<td>+10.7</td>
<td>40,000</td>
<td>+158.0</td>
<td>+92.6</td>
<td>+71.9</td>
<td></td>
</tr>
<tr>
<td>Textile Industries</td>
<td>625,000</td>
<td>-34.7</td>
<td>-32.7</td>
<td>-26.6</td>
<td>863,000</td>
<td>-5.2</td>
<td>-5.7</td>
<td>-7.5</td>
<td></td>
</tr>
<tr>
<td>Clothing Industries</td>
<td>287,000</td>
<td>-36.9</td>
<td>-35.9</td>
<td>-22.4</td>
<td>612,000</td>
<td>-8.7</td>
<td>-8.6</td>
<td>-7.1</td>
<td></td>
</tr>
<tr>
<td>Food, Drink, and Tobacco Industries</td>
<td>360,000</td>
<td>-31.5</td>
<td>-27.8</td>
<td>-16.6</td>
<td>196,000</td>
<td>+17.6</td>
<td>+23.3</td>
<td>+25.9</td>
<td></td>
</tr>
<tr>
<td>Paper and Printing Industries</td>
<td>261,000</td>
<td>-39.5</td>
<td>-35.1</td>
<td>-23.1</td>
<td>147,500</td>
<td>-4.1</td>
<td>-3.3</td>
<td>-2.8</td>
<td></td>
</tr>
<tr>
<td>Wood Industries</td>
<td>258,000</td>
<td>-33.1</td>
<td>-30.6</td>
<td>-18.6</td>
<td>44,000</td>
<td>+88.8</td>
<td>+53.9</td>
<td>+49.8</td>
<td></td>
</tr>
<tr>
<td>Other Industries</td>
<td>393,000</td>
<td>-36.0</td>
<td>-32.8</td>
<td>-22.6</td>
<td>89,500</td>
<td>+68.4</td>
<td>+55.6</td>
<td>+49.6</td>
<td></td>
</tr>
<tr>
<td><strong>Total Industries under private ownership.</strong></td>
<td>6,163,000</td>
<td>-20.0</td>
<td>-18.9</td>
<td>-9.2</td>
<td>2,176,000</td>
<td>+25.2</td>
<td>+12.1</td>
<td>+8.1</td>
<td></td>
</tr>
<tr>
<td>Gas, Water and Electricity under Local Authorities</td>
<td>63,000</td>
<td>-15.6</td>
<td>-10.6</td>
<td>-1.3</td>
<td>600</td>
<td>+784.0</td>
<td>+700.0</td>
<td>+400.0</td>
<td></td>
</tr>
<tr>
<td>Government Establishments (Dockyards, Arsenals, etc.)</td>
<td>76,000</td>
<td>+261.0</td>
<td>+154.0</td>
<td>+125.0</td>
<td>2,000</td>
<td>+12,200.0</td>
<td>+3,720.0</td>
<td>+1,750.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Industries and Municipal and Government Establishments.</strong></td>
<td>6,302,000</td>
<td>-16.6</td>
<td>-16.6</td>
<td>-7.5</td>
<td>2,178,600</td>
<td>+36.6</td>
<td>+15.6</td>
<td>+10.0</td>
<td></td>
</tr>
<tr>
<td>Occupation/Transport</td>
<td>Agriculture (permanent labour) in Great Britain</td>
<td>Railway [18.7 - 27.7]</td>
<td>Dock &amp; Wharves etc. [0.6 - 3.3]</td>
<td>Other Transport under private ownership [21.2 - 27.7]</td>
<td>Tramways under Local Authorities [21.2 - 27.7]</td>
<td>Transport (excluding Municipal Tramways) [21.2 - 27.7]</td>
<td>Municipal Tramways [21.2 - 27.7]</td>
<td>Total Transport [21.2 - 27.7]</td>
<td>Total Finance and Commerce [21.2 - 27.7]</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
</tr>
<tr>
<td>Agriculture (permanent labour) in Great Britain</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
<td>[80,000]</td>
</tr>
</tbody>
</table>
III. The Unemployment Donation.

In the following Table XXVI. an attempt has been made to analyse by trades (a) the unemployment donation figures for the end of April, 1919, for males over 18, so far as they related to industrial occupations, and (b) the number of men discharged since November, 1918, and up to April, 1919, from the Navy, Army and Air Force.

**TABLE XXVI.**

**Demobilisation and the Unemployment Donation.**

Comparison of Change in Numbers of Adult Male Civilians and Men known to have served with H.M. Forces employed in each main group of Industrial Occupations with Numbers of each of these Classes drawing Unemployment Donation, and Numbers Demobilised from H.M. Forces, November, 1918—April, 1919.

<table>
<thead>
<tr>
<th>TRADE GROUP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increase (+) or decrease (−) in number of Adult Male Civilians in Employment, November, 1918, to April, 1919.</td>
<td>Number of Adult Male Civilians drawing Unemployment Donation, April, 1919.</td>
<td>Number of Men employed in each Trade Group in H.M. Forces, November, 1918 to April, 1919.</td>
<td>Increase in Number of Men employed in H.M. Forces between November, 1918 and April, 1919.</td>
<td>Number of Men from each Group known to have served with H.M. Forces.</td>
</tr>
<tr>
<td>Building Trades</td>
<td>+ 31,000</td>
<td>35,000</td>
<td>210,000</td>
<td>129,000</td>
<td>38,000</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>− 15,000</td>
<td>4,500</td>
<td>250,000</td>
<td>189,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>− 152,000</td>
<td>79,000</td>
<td>340,000</td>
<td>155,000</td>
<td>162,000</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>− 30,000</td>
<td>4,000</td>
<td>16,000</td>
<td>21,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Cotton</td>
<td>− 1,000</td>
<td>8,000</td>
<td>37,000</td>
<td>26,000</td>
<td>11,000</td>
</tr>
<tr>
<td>Woollen and Worsted</td>
<td>− 1,000</td>
<td>1,000</td>
<td>17,000</td>
<td>16,000</td>
<td>1,500</td>
</tr>
<tr>
<td>Other Textile Trades</td>
<td>− 4,000</td>
<td>6,500</td>
<td>27,000</td>
<td>22,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Boots and Shoes</td>
<td>+ 6,000</td>
<td>1,000</td>
<td>16,000</td>
<td>10,000</td>
<td>3,500</td>
</tr>
<tr>
<td>Other Clothing Trades</td>
<td>+ 2,000</td>
<td>1,000</td>
<td>36,000</td>
<td>22,000</td>
<td>3,500</td>
</tr>
<tr>
<td>Food, Drink and Tobacco</td>
<td>+ 3,000</td>
<td>3,500</td>
<td>65,000</td>
<td>59,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>+ 12,500</td>
<td>4,000</td>
<td>43,000</td>
<td>36,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>+ 4,000</td>
<td>3,000</td>
<td>45,000</td>
<td>40,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Bricks and Cement</td>
<td>+ 2,500</td>
<td>1,000</td>
<td>9,000</td>
<td>9,000</td>
<td>2,500</td>
</tr>
<tr>
<td>China and Glass</td>
<td>+ 2,000</td>
<td>1,000</td>
<td>12,000</td>
<td>8,000</td>
<td>1,500</td>
</tr>
<tr>
<td>Leather</td>
<td>− 1,000</td>
<td>1,500</td>
<td>16,000</td>
<td>9,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Rubber</td>
<td>− 500</td>
<td>1,000</td>
<td>6,000</td>
<td>4,500</td>
<td>2,500</td>
</tr>
</tbody>
</table>

All Industries† (including some not shown separately) −135,500 158,000 1,159,000 782,000 280,000

* Including more than 100,000 Class W. Army Reserve who had returned to civil work before the 11th November, though their formal discharge took place after that date, and about 150,000 whose month of furlough had not yet expired, though doubtless already many had entered employment.

† Including Government and Municipal Establishments under their appropriate trades.
It must be remembered that this last number (Column E) includes any men demobilised during the war and out of work, even if they had since been in civil employment. Also the total number of men discharged includes about 140,000 (Class W. Army Reserve) who had actually returned to employment previous to the Armistice, and are therefore for the most part included in the employment figures for November, 1918, and not in the numbers returned from the Forces since, though their formal demobilisation did not take place until after that date, and most of these were probably engaged in industries and so covered in Column C. The War Office analysis of men demobilised, on which Column C is based, included employers and men working on their own account, while the Ministry of Labour’s analysis of unemployment donation policies was necessarily occupational rather than industrial in character, since it dealt with men not at the moment employed in any industry, and purported to show not their most recent trade but that for which they were considered suitable in the future. Both these sets of figures also include a large class of general labourers not further occupationally specified. In the table the figures shown in Columns B, C, and E have been adjusted for the purpose of making them comparable with figures based on the employment return (Columns A and D), but such adjustment cannot be exact, and the comparison is made with considerable reserve.

IV. Reduction in Employment on Government Work.

In Table XXIV. the changes during the six months after the signing of the Armistice in the total numbers employed in different industries have been shown, but this does not indicate to what extent employment in these industries turned over from government work to private contracts. In Table XXVII. (pp. 74-75), the number of persons engaged on work for the Government in November, 1918, and January and April, 1919, is shown for each main group of trades.

In order to compare the state of employment and amount of government work trade by trade, it is necessary to consider establishments the property of the Government as well as those under private ownership. Employment in government dockyards, arsenals, etc., is accordingly analysed in Table XXVIII. (p. 76).

It will be seen that establishments under the Ministry of Munitions account for the whole fall in the case of males and the greater part in the case of females, the males having dropped by 63 per cent. and the females by 90 per cent. The total fall in persons making destructive munitions cannot be learnt directly either from Table XXVII. or XXVIII., but, as already stated in the conclusion of Chapter IV., it was estimated that at the signing of the Armistice the number of workpeople employed in the manufacture of destructive munitions proper was approximately 1,200,000, while by the end of April, 1919, probably not many more than 100,000 were still so employed, of whom nearly 84,000 were working in Ministry of Munitions establishments.
### TABLE XXVII.

**Numbers Employed on Work directly or indirectly to Government Order.**

**MALES.**

<table>
<thead>
<tr>
<th>TRADE GROUP</th>
<th>Numbers on Government Work, November, 1918</th>
<th>Percentage of Numbers employed</th>
<th>Numbers on Government Work, January, 1919</th>
<th>Percentage of Numbers employed</th>
<th>Numbers on Government Work, April, 1919</th>
<th>Percentage of Numbers employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Trades</td>
<td>197,900</td>
<td>45.2</td>
<td>121,000</td>
<td>26.2</td>
<td>109,200</td>
<td>18.5</td>
</tr>
<tr>
<td>Mines and Quarries (excluding Coalmining)</td>
<td>58,400</td>
<td>63.8</td>
<td>47,600</td>
<td>48.9</td>
<td>36,400</td>
<td>33.2</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>1,707,700</td>
<td>91.2</td>
<td>915,900</td>
<td>52.1</td>
<td>657,700</td>
<td>34.5</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>115,900</td>
<td>69.5</td>
<td>83,300</td>
<td>19.8</td>
<td>38,800</td>
<td>8.5</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>167,800</td>
<td>41.1</td>
<td>28,000</td>
<td>14.6</td>
<td>23,300</td>
<td>10.5</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>54,700</td>
<td>30.2</td>
<td>20,200</td>
<td>7.8</td>
<td>21,300</td>
<td>7.1</td>
</tr>
<tr>
<td>Food Trades</td>
<td>31,400</td>
<td>12.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>31,300</td>
<td>19.8</td>
<td>20,500</td>
<td>12.2</td>
<td>20,500</td>
<td>10.2</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>108,800</td>
<td>63.0</td>
<td>38,500</td>
<td>21.5</td>
<td>25,200</td>
<td>12.0</td>
</tr>
<tr>
<td>Other Trades</td>
<td>113,500</td>
<td>45.1</td>
<td>60,100</td>
<td>22.7</td>
<td>48,700</td>
<td>16.0</td>
</tr>
<tr>
<td>Total Industries under Private Ownership (excluding Coalmining)</td>
<td>2,587,400</td>
<td>64.9</td>
<td>1,385,400</td>
<td>35.0</td>
<td>1,018,300</td>
<td>22.7</td>
</tr>
<tr>
<td>Supply of Gas, Water and Electricity under Local Authorities</td>
<td>21,400</td>
<td>40.2</td>
<td>7,900</td>
<td>14.1</td>
<td>4,200</td>
<td>6.7</td>
</tr>
<tr>
<td>Government Establishments (including arsenals, Dockyards, National Shell Filling and Projectile Factories, etc.)</td>
<td>275,700</td>
<td>100.0</td>
<td>194,400</td>
<td>100.0</td>
<td>171,900</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Grand Total:</strong> Industries, Municipal and Government Establishments (excluding Coalmining)</td>
<td>2,884,500</td>
<td>67.0</td>
<td>1,587,700</td>
<td>37.8</td>
<td>1,194,400</td>
<td>25.3</td>
</tr>
</tbody>
</table>
### Table XXVII.—continued.

**Numbers Employed on Work directly or indirectly to Government Order.**

**FEMALES.**

<table>
<thead>
<tr>
<th>TRADE GROUP</th>
<th>Numbers on Government Work, November, 1918</th>
<th>Numbers on Government Work, January, 1919</th>
<th>Numbers on Government Work, April, 1919</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Trades</td>
<td>20,100</td>
<td>64.1</td>
<td>10,500</td>
</tr>
<tr>
<td>Mines and Quarries (excluding Coalmining)</td>
<td>900</td>
<td>84.8</td>
<td>700</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>525,400</td>
<td>88.3</td>
<td>153,100</td>
</tr>
<tr>
<td>Chemical Trades</td>
<td>79,500</td>
<td>70.0</td>
<td>20,200</td>
</tr>
<tr>
<td>Textile Trades</td>
<td>349,200</td>
<td>43.2</td>
<td>162,500</td>
</tr>
<tr>
<td>Clothing Trades</td>
<td>145,300</td>
<td>26.1</td>
<td>80,700</td>
</tr>
<tr>
<td>Food Trades</td>
<td>36,400</td>
<td>15.8</td>
<td>25,000</td>
</tr>
<tr>
<td>Paper and Printing Trades</td>
<td>37,800</td>
<td>26.7</td>
<td>20,000</td>
</tr>
<tr>
<td>Wood Trades</td>
<td>67,700</td>
<td>81.5</td>
<td>12,300</td>
</tr>
<tr>
<td>Other Trades</td>
<td>77,400</td>
<td>51.3</td>
<td>31,500</td>
</tr>
<tr>
<td>Total Industries under Private Ownership</td>
<td>1,339,700</td>
<td>49.4</td>
<td>516,500</td>
</tr>
<tr>
<td>Supply of Gas, Water, and Electricity under Local Authorities</td>
<td>2,100</td>
<td>40.4</td>
<td>800</td>
</tr>
<tr>
<td>Government Establishments (including Arsenals, Dockyards, National Shell Filling and Projectile Factories, etc.)</td>
<td>245,500</td>
<td>100.0</td>
<td>76,400</td>
</tr>
<tr>
<td><strong>Grand Total: Industries, Municipal and Government Establishments</strong></td>
<td><strong>1,587,300</strong></td>
<td><strong>53.5</strong></td>
<td><strong>593,700</strong></td>
</tr>
</tbody>
</table>
### TABLE XXVIII.

**NUMBERS EMPLOYED IN GOVERNMENT DOCKYARDS, ARSENALS, ETC.**

<table>
<thead>
<tr>
<th></th>
<th><strong>MALES.</strong></th>
<th><strong>FEMALES.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nov., 1918</td>
<td>Jan., 1919</td>
</tr>
<tr>
<td><strong>Admiralty Dockyards, etc.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portsmouth Dockyard</td>
<td>20,658</td>
<td>20,401</td>
</tr>
<tr>
<td>Devonport Dockyard</td>
<td>17,038</td>
<td>16,855</td>
</tr>
<tr>
<td>Chatham Dockyard</td>
<td>12,593</td>
<td>13,307</td>
</tr>
<tr>
<td>Sheerness Dockyard</td>
<td>3,418</td>
<td>3,297</td>
</tr>
<tr>
<td>Pembroke Dockyard</td>
<td>3,656</td>
<td>3,547</td>
</tr>
<tr>
<td>Rosyth Dockyard</td>
<td>9,538</td>
<td>9,420</td>
</tr>
<tr>
<td>Haulbowline Dockyard</td>
<td>2,433</td>
<td>2,291</td>
</tr>
<tr>
<td>R.N. Torpedo Factory, Greenock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.M. Repair Base, Invergordon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Admiralty Dockyards*</td>
<td>90,783</td>
<td>88,735</td>
</tr>
<tr>
<td><strong>Ministry of Munitions Establishments.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royal Ordnance Factories, Woolwich</td>
<td>40,126</td>
<td>28,800</td>
</tr>
<tr>
<td>Royal Gunpowder Factory, Waltham Abbey</td>
<td>2,077</td>
<td>1,716</td>
</tr>
<tr>
<td>Royal Small Arms Factory, Enfield</td>
<td>7,859</td>
<td>4,842</td>
</tr>
<tr>
<td>National Filling Factories</td>
<td>17,347</td>
<td>6,720</td>
</tr>
<tr>
<td>National Ordnance Factories</td>
<td>6,382</td>
<td>2,331</td>
</tr>
<tr>
<td>National Projectile Factories</td>
<td>23,699</td>
<td>6,424</td>
</tr>
<tr>
<td>National Shell Factories</td>
<td>5,435</td>
<td>1,089</td>
</tr>
<tr>
<td>H.M. Factories</td>
<td>18,001</td>
<td>6,564</td>
</tr>
<tr>
<td>Inspection Departments</td>
<td>17,721</td>
<td>10,305</td>
</tr>
<tr>
<td>Aeroplane Factories</td>
<td>11,997</td>
<td>7,326</td>
</tr>
<tr>
<td>All Ministry of Munitions Establishments*</td>
<td>165,684</td>
<td>86,660</td>
</tr>
<tr>
<td><strong>War Office Establishments.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royal Army Clothing Dept., Pimlico</td>
<td>3,688</td>
<td>3,653</td>
</tr>
<tr>
<td>Equipment and Stores Inspection Division, Woolwich</td>
<td>3,740</td>
<td>3,316</td>
</tr>
<tr>
<td>Home Mechanical Transport Depot, A.S.C.</td>
<td>322</td>
<td>750</td>
</tr>
<tr>
<td>Army Ordnance Depot</td>
<td>9,415</td>
<td>9,602</td>
</tr>
<tr>
<td>Supply Reserve Depot, Deptford</td>
<td>2,106</td>
<td>1,692</td>
</tr>
<tr>
<td>Salvage Depot, Reading</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>All War Office Establishments</td>
<td>19,276</td>
<td>19,021</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>275,743</td>
<td>194,416</td>
</tr>
</tbody>
</table>

*Including some not shown separately.*
Contents of Volume VI.

Under the revised scheme of arrangement for Volume VI the order of Parts has been changed and the final notation will be as follows:


Part II. The Home Front, 1917-18.

Part III. Men or Munitions, 1918.


[But see also page 103 of Part II]

Historical Records Branch.