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COMMITTEE ON INDUSTRY AND TRADE

# Survey of Industrial Relations

Based on material mainly derived from official sources, with regard to industrial remuneration, conditions, and relationships in Great Britain and certain other countries so far as available ;  
together with statistical tables.

WITH AN INTRODUCTION BY THE COMMITTEE

LONDON

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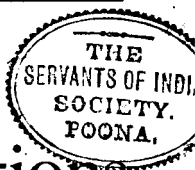
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1926

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## COMMITTEE ON INDUSTRY AND TRADE.

## INSTRUMENT OF APPOINTMENT.

Whereas it has been represented to me, the Right Honourable James Ramsay MacDonald, Prime Minister, First Lord of the Treasury and Secretary of State for Foreign Affairs, by the President of the Board of Trade, that it is desirable to inquire into the conditions and prospects of British industry and commerce, with special reference to the export trade ;

Now I, therefore, do hereby appoint the following persons\* to form a Committee to inquire into and report upon the aforesaid matters, and to make recommendations in regard thereto ;

Sir ARTHUR BALFOUR, K.B.E. (*Chairman*).

Mr. JOHN BAKER.

\*Sir WILLIAM BEVERIDGE, K.C.B.

Mr. HENRY BOOTHMAN.

Mr. J. T. BROWNLEE, C.B.E.

Mr. W. T. CHARTER.

Mr. C. T. CRAMP.

\*Mr. HUGH DALTON, D.Sc.

Sir HARRY GOSCHEN, K.B.E.

Mrs. M. A. HAMILTON.

Mr. F. A. HARGREAVES.

Sir NORMAN HILL, Bart.

Sir JOHN S. HINDLEY.

Mr. DAVID LANDALE.

Sir W. CLARE LEES, O.B.E.

\*Mr. P. J. PYBUS, C.B.E.

Mr. ARTHUR SHAW.

Sir ALLAN SMITH, K.B.E.

Sir HUBERT LLEWELLYN SMITH, G.C.B.

I further appoint Mr. W. Carter to be Secretary and Mr. A. R. Fraser and Mr. W. L. Buxton to be Assistant Secretaries to the said Committee.

(Signed) J. RAMSAY MACDONALD.

28th July, 1924.

\*The members whose names are marked with an asterisk have since found it necessary to resign, and the following additional members have been appointed :—

Sir WILLIAM ASHLEY, Ph.D. (appointed 2nd December, 1924.)

Sir W. PETER RYLANDS (appointed 30th April, 1925).

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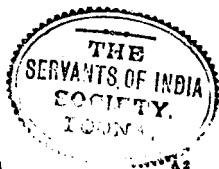
## MEMORANDUM ACCOMPANYING TERMS OF REFERENCE.

The scope of the terms of reference is regarded as being on the general lines set out in the three following paragraphs, which are intended as explanatory of the subjects on which investigation is specially desired and not as an exhaustive definition of the inquiry:—

"The first question to which the attention of the Committee should be directed is the present position of British overseas trade and the prospect of British participation in the markets of the world being such as to ensure sufficient and continuous employment and a satisfactory standard of living in this country. The examination of tendencies and developments in the markets of the world and also in the chief competing countries will be involved, together with an inquiry into the growth of competition with British goods in these markets, the likelihood of its continuance, and its probable consequences.

"The second question is the ability of British industry to meet competition under the conditions thus determined and to adapt itself to changes in the nature of overseas demand. This involves an inquiry into British productive capacity and organisation, including the supply and efficiency of capital, labour and management, the present and future adequacy of raw materials and possible improvements in their utilisation, and the part played by the United Kingdom in new developments of industry, particularly those which are the outcome of scientific research. Matters to which attention might be directed are the present extent of large-scale production, its possibilities and limitations; the efficiency of plant and equipment; power supply and transport as factors in cost of production; marketing organisation at home and abroad; and the current methods of industrial and commercial finance. It will be necessary, in addition, to take account of the effect of State regulative action upon costs and output.

"The third question is that of the relations between those engaged in production. This will involve inquiry into methods of industrial remuneration, the main causes of unrest and disputes, and the methods of avoidance or settlement of disputes, as, for example, co-partnership, co-operation, Wages Boards and voluntary arbitration, State regulation of wages, and compulsory arbitration and compulsory enforcement and extension of agreements."



New Public Offices,  
Great George Street,  
Westminster, S.W. 1

February, 1926

The Rt. Hon. Stanley Baldwin, M.P.

SIR,

We, the Committee appointed by your predecessor on the 28th July, 1924, "to enquire into and report upon the conditions and prospects of British industry and commerce," addressed a letter to you last June transmitting a collection of surveys of overseas markets and stating that we proposed to submit from time to time, in advance of our final report, further collections of material bearing on different branches of the questions referred to us. We now beg to submit herewith, to be laid before Parliament, if so desired, a collection of memoranda and statistics, constituting a survey of industrial relations based mainly on official information. In order to facilitate the study of this material we have prefixed to it a brief introductory summary and review.

A. BALFOUR (*Chairman*).  
WM. ASHLEY  
JOHN BAKER.  
HENRY BOOTHMAN.  
J. T. BROWNLIE.  
W. T. CHARTER.  
C. T. CRAMP.  
W. H. N. GOSCHEN. }  
MARY AGNES HAMILTON.  
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JOHN S. HINDLEY.  
DAVID LANDALE.  
W. CLARE LEES.  
W. PETER RYLANDS.  
ARTHUR SHAW.  
ALLAN M. SMITH.  
H. LLEWELLYN SMITH.

W. CARTER, *Secretary*.  
A. R. FRASER } *Assistant Secretaries*.  
W. L. BUXTON }

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## INTRODUCTION.

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The object of the present volume, as of the Survey of Overseas Markets published in July, 1925, is to put the public in possession of such data as can be derived from official sources of information on one aspect of the great complex of connected problems which fall within the Committee's reference.

The previous volume consisted of a series of surveys of overseas markets, based mainly on information obtained from official sources, setting out the position and immediate prospects of British trade as affected by conditions arising in those markets, e.g., the deficiency of purchasing power, the growth of local manufacture, or the replacement of British goods by imports from competing countries. Questions of industrial and commercial efficiency and cost, as affecting the competitive power of British trade, were expressly left over for treatment in subsequent volumes.

The questions thus left over depend evidently on a number of factors, e.g., technical efficiency of equipment and organisation; access to cheap and adequate sources of materials, supplies of power and means of transport; adjustment of the burdens of public charges so as not to weigh unduly on costs; efficiency and flexibility of all grades of labour and management; continuity of production; and the existence of such relations among the agents of production and distribution as will stimulate output and at the same time maintain for all a reasonable standard of life.

It is with the last-mentioned aspects and conditions of efficiency, viz., those dependent on labour and industrial relationships, that the present volume is exclusively concerned, and that only within specific limitations. The material composing the volume is descriptive, and it is here assembled with such explanation and comment only, by way of introduction, as may make its meaning plain, and, within the limits of the available data, yield a clear and comprehensive picture of existing conditions and tendencies. We are of course fully aware that the problem of efficiency is a single though highly complex whole, and that its various factors cannot be finally weighed and analysed without taking into account their mutual relations and reactions. The provisional isolation of certain of the aspects of the question for separate preliminary survey is merely an expedient dictated by motives of convenience, and in no way implies a belief that, in any recommendations that the Committee may eventually make, the problem can be dealt with in water-tight compartments.

These considerations, though of general application, are of special importance in connection with the subject matter of the present volume. Industrial relationships are essentially mutual, and questions of the efficiency of labour's contribution to production and of the reward which it can claim, are not independent of the corresponding questions of efficiency of equipment and management, and of the cost at which the essential services of direction and capital are obtainable.

There is, moreover, another very important point to bear in mind. If, throughout this volume, the workman's expenditure of effort is regarded primarily as his contribution towards the production of material goods, we nevertheless realise that the conditions affecting that expenditure of effort cannot be judged exclusively from the point of view of output, without taking into account their reactions on the life and welfare of the workman, regarded as ends in themselves and not only as means to the creation of material wealth. Having regard to our reference, however, such broader social considerations can only enter very partially into our survey of this part of our subject, though naturally questions of labour well-being and contentment concern us deeply as essential factors in productive efficiency.

We make these observations in order to guard against possible misunderstanding, by making clear the limitations within which we work.

As already stated, the surveys here presented are mostly founded on materials supplied to the Committee from official sources. The greater part of the material has been furnished by the Ministry of Labour, to whom in particular the grateful thanks of the Committee are due. We have also to thank the Registrar-General, the Home Office, the Board of Trade, the Mines Department, and the Department of Overseas Trade for much valuable information and assistance.

While the various Departments mentioned are responsible for the information which they have supplied, and have been good enough to assist the Committee in the arrangement and tabulation of this information, the responsibility for any comment arising out of the surveys and for the present introduction rests with the Committee. The headings to the Memoranda in the volume indicate their source.

## GROWTH AND DISTRIBUTION OF POPULATION

Before entering upon the review of each of the principal factors in industrial relations, it is desirable to obtain some general idea of the magnitude and character of the problem as a whole, by reference to a few of the more important official data bearing on the growth of the population, and the changes that have recently taken

place in its distribution both by industries and by age-groups. On pp. 56-65 will be found an epitome of the most recent information on this subject based on the official data already available and on information specially furnished to the Committee by the Registrar-General. From this summary it will be seen that, during the forty years 1881-1921, the population of Great Britain increased from 30 to 43 millions, an increase of 13 millions or about 43 per cent. Of the total increase, nearly 12 millions were accounted for by England and Wales, the population of which increased by 45 per cent., viz., from 26 to 38 millions.

The figures given on p. 58 as to the birth and death rates indicate that the rate of "natural" growth of the population has continuously fallen during the past 50 years. We find that in 1871-80 the average birth rate was 35.4 and death rate 21.4, the difference between the two rates being 14 per thousand of the population. In the six years since the war (1919-24), the average birth rate was only 21.3, while the death rate was 12.7, the margin between them being 8.6. In other words, the birth rate, death rate, and the margin between them have simultaneously fallen to about three-fifths of the level at which they stood half a century ago.

Besides the operation of this permanent cause, the normal growth of the population was interrupted by the war, and it is interesting to compare the increase in the decade 1901-11 with that which took place in the next ten years, nearly half of which were war years. The total increase of the population of Great Britain in the former of these periods was over 3.8 millions, and in the latter less than 2 millions, or scarcely more than half. The full significance of this contrast is seen if the increase of population is analysed by age groups, when it appears that, as the joint effect of the two causes referred to above, the increase of the population of 10 years of age and upwards fell by nearly 720,000, while in the case of children under ten an increase of 368,000 was actually converted into a net decrease of 807,000. The figures on close examination indicate that the immense loss of life among the adult male population during the war was partly offset by the stoppage of emigration, so far as its effect on the aggregate growth of population is concerned. But manifestly the distribution by age and sex, and hence the economic significance, of the population lost through the war differed materially from that of the population retained through suspension of emigration.

The profound effect of the war, and still more of the continuous decline in the margin between births and deaths, on the age distribution of the population, and consequently on production, is clearly brought out in the Memorandum on p. 69, which shows that practically the whole of the increase between 1913 and 1926 in the number of men of employable age in Great Britain (i.e., about 1,000,000) took place in the older age-groups, i.e., those above 45. The relative decline in the number of men of the most efficient ages

has an evident bearing on questions of productive cost and unemployment; and it is further indicated by the Memorandum that the next few years will see an increase in the proportion of the male population aged 65 and upwards, and a decrease in the proportion of adolescents.

Throughout the period 1881-1911, the proportion of the population of Great Britain over 10 years of age described as following definite occupations remained fairly constant. In the following decade there was a fall from 56·9 to 55·3 per cent., but this was wholly accounted for by a decline in the number of "occupied" boys and girls under 16, which fell by 112,000 in the 10 years. Of this decrease, 75,000 represented the decreased employment of children under 14 years of age. As regards females, there has been an appreciable decline in the proportion (not in the total number) of women and girls returned as following definite occupations. (*See tables on p. 59*).

The tables on pp. 416-26 show, so far as the available material permits, the distribution of the occupied population by industries between 1881 and 1921. The changes that have taken place have been very great. For example, there has been a rapid and steady decrease in the proportion employed in agriculture from over 12 to less than 7 per cent. of the occupied population of Great Britain. The actual number employed in agriculture has also declined, though to a much less marked extent, viz., from over 1,500,000 to 1,300,000. On the other hand, the number employed in coal mining has risen from 500,000 to 1,300,000, and the percentage of the occupied population so employed has increased from 4 to nearly 7. Similarly the total number employed in the metal and engineering group of trades has risen from 900,000 to nearly 2,500,000, while the percentage has increased from over 7 to nearly 13. The total number employed in textile manufacture has remained fairly constant, between 1,200,000 and 1,300,000, but the percentage so employed has fallen from over 9 to less than 7. It is not possible to state the total change which has taken place in the number or proportion employed in building and kindred trades. In England and Wales, however, the number employed in this group has fallen since 1901 from 1,000,000 to 750,000, and the percentage of the occupied population so employed has declined in the same period from over 7 to under 4·5.

For further details reference should be made to the tables. Broadly speaking, it may be said that since 1901 the total proportion of the occupied population directly engaged in production has remained practically constant at about one half. It is therefore apparent that the total proportion engaged in all other occupations including transport, commerce, finance, public services and non-industrial occupations generally, must also have remained practically constant at about one half.

## WAGES AND EARNINGS.

*Changes in Recent Money Wages.*

It is a matter of common knowledge that both money wages and the cost of living are now considerably higher than at the beginning of the war. The level of money wages has risen, whether the wages are measured by the rate per hour or per week, or on a piece-work basis. Both before and since the war, the rates of money wages have fluctuated with the movements of trade and prices. During the period preceding the war, there was a slight general trend of money wages in an upward direction underlying a series of periodic oscillations, by which the movement was often obscured. Thus the index number of wages compiled by the Board of Trade showed a rise of about 13 or 14 per cent. in 20 years, i.e., on a comparison of the average of the five years ending 1893 and 1913 respectively. This gradual rise, averaging less than one per cent. per annum, was inappreciable in its economic effects compared with the great upward movement which accompanied the rise of prices during the war, and which culminated in the "peak" year 1920, since which date there has been a considerable decline concurrently with or following the general fall of prices. The figures given on p. 76 suggest that, of the total rise of weekly rates of money wages between 1914 and 1920, something like three-fifths has been lost by decreases since the latter date. As there has been no comprehensive Census of wages or earnings since the Board of Trade voluntary Census in 1906 of earnings in industrial occupations, it is evident that the materials do not exist for a precise computation of the change in level of money wages since that date or during the past ten years.

The Census of 1906 showed that, at that date, the average weekly earnings of adult men, covered by the returns,\* who were employed full time, amounted to 28s. 8d. The average earnings of all adult men, covered by the returns, including those employed less or more than full time, amounted to 29s. 2d. The averages for women were 14s. 2d. (full time employees) and 13s. 7d. (including all women employed). These last figures are of course not comparable with the averages for men, since the occupations to which they refer are dissimilar. Such official data as exist with regard to changes of wages between 1906 and 1913 suggest that we should not be far wrong in assuming an average rate of weekly earnings of about 30s. for adult full-time workmen, skilled and unskilled, in industry (excluding agriculture and coal-mining) at the time of the outbreak of war. If coal mining be included, the average earnings would be somewhat higher.†

\* Not including agriculture or mining.

† Reference may also be made to the Seventeenth Abstract of Labour Statistics (1915, Cd. 7733) especially the table of index numbers on p. 66, showing the general course of wages in certain important industries from 1880 to 1913. These figures show an average rise of 4·7 points (102·3 to 107) excluding coal mining, and of 7·7 points (97·6 to 105·3) including coal mining as between 1906 and 1913. In both cases agriculture is excluded.

For the measurement of the change which has since taken place in the level of money wages, we are compelled to resort to various imperfect methods of estimate. Such materials as exist for this estimate are given in the Memorandum which is printed on pp. 74-93. It should, however, be observed that, even if full data were available, no single percentage could accurately represent the change of money wages for all the purposes of the present inquiry, since the factors to be taken into account will necessarily vary according to the object in view. To the employer, anxious above all things as to his costs, the governing consideration as to wages is not the weekly or hourly amount paid per head, but the wages cost per unit of production, whether measured in quantity or value of output. To the workman, anxious to maintain himself and his family in conditions of health and tolerable comfort, the primary consideration is the total amount which he can earn per week, or rather the total quantity of necessary or desirable commodities which he can purchase with that amount. Of course each of the parties to production is in fact concerned directly or indirectly with all the relevant factors. On the one hand, labour is not cheap to an employer, if, owing to an unsatisfactory standard of life, it is inefficient; on the other hand, workmen cannot hope to maintain a satisfactory standard of life if the cost of their labour per unit of output is so high as to make the product unsaleable. Naturally, however, each party to the wages contract looks primarily at the aspects which affect his own well-being most obviously and directly. Throughout this survey, therefore, it is desirable to distinguish, so far as practicable, between wages regarded as an item in productive costs, and wages regarded as the means of livelihood to the workman.

Our first step must be to endeavour to ascertain the rise in rates of money wages. The information given in the Memorandum on p. 74 indicates that, as between 1914 and 1924, there has been a net rise in the rates of money wages per week, the amount of which has varied very widely from industry to industry, and also from grade to grade of labour within each industry, but which on the whole may be taken to average from 70 to 75 per cent.\* Broadly speaking, the proportionate rise has been greater for the less skilled than for the more highly skilled workpeople, the average increase being probably from 80 to 90 per cent. for the former and from 60 to 70 per cent. for the latter. Of course, in the case of the unskilled workman, these higher percentages of increases are applicable to lower pre-war rates of wages, the result being, so far as can be judged from the data in the Memorandum, that the actual increase in the rates of wages, measured not in percentage but in money, was very roughly the same for the two classes.†

\* See footnote on p. 9.

† This is doubtless attributable in part to the fact that the increases in wages during the war were largely made on a cost-of-living basis. See below, p. 15.

For example, in sixteen districts where weekly rates for skilled engineers rose on an average by 17s. 7d., rates for engineers' labourers rose by 17s. 4d. or practically the same amount.

The statistics given in the Memorandum make it clear that the proportionate rise in time rates of money wages has been unequal, not only as between skilled and unskilled workers, but also as between different industries, the dominant difference being between industries largely exposed to foreign competition and those which for various reasons are less exposed to that competition. Table A on pp. 88-91 shows the percentage rise in wages for various industries in these two groups. Calculations based on these data yield the conclusion that the prevailing rates of increase for the trades most exposed to competition range from 45 to 75 per cent. (with an average of about 60), while those for the trades sometimes described as "sheltered" range from 80 to 120, with an average of about 100 per cent. While it would doubtless be rash, on the information before us, to ascribe the whole of this difference to any single factor, the discrepancy is too great, and the area from which the figures are drawn is too wide and representative, to admit of any complete explanation which does not take account of the very different degrees to which the various industries are directly exposed to the blast of foreign competition.

It may be added that the discrepancy is not confined to percentage increases, but applies also to the actual level of rates of money wages. This is brought out in the table on p. 92, which relates to the time rates of wages for certain "exposed" industries (e.g., coal-mining, iron and steel, engineering and shipbuilding, wool textile and chemicals, in some of the principal centres), and for certain less exposed industries (e.g., printing, building, and baking in a number of large towns, and railway service). An inspection of the rates quoted suggests that, for the districts to which they relate, a rough average of weekly rates of time wages in June 1925, for the industries represented in the table which are most directly exposed to foreign competition, was about 58 shillings for skilled men and 45 shillings for labourers, while, in the case of the more "sheltered" trades, the average rates exceeded 73 shillings and 50 shillings respectively. No doubt part of the difference may be due to special causes, e.g., the greater liability of the out-door trades to interruption through bad weather, or differences in the districts from which the data are drawn. But when all allowance is made for these factors, there remains a substantial difference between the rates generally applicable to the two groups of occupations.

It may be repeated that the above figures relate to the rise in weekly rates of wages.\* Where there has been a decrease in the weekly hours worked, it is obvious that the hourly rates of wages must have risen by a greater percentage.

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\* In the case of coal mining, the figures refer to average earnings per shift.

*Recent Changes in "Real" Wages and Wages-cost.*

So far we have been speaking only of money wages, but it is well known that, during the period under review, the value of money in terms of commodities has undergone a great change, and it is now necessary to take account of this change in order to arrive at the "real" movement of wages, in relation to the cost of production on the one hand, and to the cost of living on the other. For these two purposes, however, the qualifying factors to be applied to money wages are not the same. From the point of view of estimating changes in the magnitude of the wages element in the cost of industrial production, we need to apply to money wages a factor representing, as nearly as may be, the change of value of money expressed in terms of commodities in general. This change is, of course, reflected inversely in the movement of general prices, which is measured roughly by the Board of Trade index number of wholesale prices.\* The index number for 1924 was about 66 per cent. higher than its pre-war level,† i.e., its rise was somewhat less than the average rise of weekly rates of money wages, which again (as will be seen below‡) was less than the average rise of hourly rates. Hence it would appear that, assuming equal conditions of effort, efficiency, and assistance from capital and industrial organization, there has been, on the average, a small increase in the wages element in the "real" cost of production, after discounting the apparent increase due merely to changes in the level of money value. This comparison is based on broad averages for the whole of industry. Since, however, the rise in money wages has been greater in the less exposed than in the more exposed industries, while the relative change in the purchasing power of money has been the same for both groups, it is a natural inference that, other things being equal, the rise in the "real" labour cost of production in the more sheltered trades has been considerably above the average, while in the case of some classes of skilled men in the exposed trades there has probably been a fall. To avoid misunderstanding, it is necessary to remember that these conclusions are based on the assumption that certain factors named above have remained constant, and in actual practice any increase or decrease in "real" labour cost may have been outweighed by changes in these factors. There are, however, no official data for obtaining a statistical measure of changes in the efficiency of labour or industrial organization, and any comments on these important aspects of the problem must therefore be reserved until we are in a position to review the results of the evidence we are obtaining and of our own special investigations. It is not possible to discuss these essential factors in the problem on the material available from departmental sources, which is the principal basis of the present volume.

\* See p. 432.

† See footnote on p. 9.

‡ See p. 18 *et seq.*



We therefore pass from the question of changes in wages cost, regarded as an item in the cost of production, to the other important aspect of the wages problem, viz., changes of wages as bearing on the standard of living and welfare of the workman and his dependent family. Here, the factor which we have to apply to money wages, in order to ascertain the changes in the "real" remuneration of labour, is not the Board of Trade index number of general wholesale prices, but an index number representing, as nearly as possible, variations in the purchasing power of money wages in terms of the commodities and services which enter into the customary expenditure of a workman's family.

For this purpose we must have recourse to the Ministry of Labour index number of cost of living, the basis of which is briefly explained in the Memorandum on p. 94. This index number has, from time to time, been subjected to discussion and criticism, as is only natural in view of the fact that it has in recent years been used not only for the purely statistical purposes for which it was originally intended, but as the basis of sliding scales or other agreements for determining rates of money wages in periods of rapidly changing prices.

It is not necessary for the purpose of the present inquiry to enter into the discussions which have arisen, as we only propose to use the index for the specific purpose for which it was instituted, viz., to measure the results of price changes on the purchasing power of a given amount of money wages, on the assumption that the workman's customary standard of living has remained unaltered, i.e., that there has been no change in the commodities and services which he desires to obtain or in the proportions in which he allocates his expenditure among those objects. This assumption is not, of course, absolutely true, especially in a period of rapidly moving wages and prices. Nevertheless, we consider that, on the whole, the official index number of cost of living affords a sufficiently good measure, for the purpose of our inquiry, of general changes in the purchasing power of a given rate of money wage. In any case it is the only measure available. But it must be clearly understood that the index is applicable solely to the average condition of large masses of workmen and not to those of particular individuals or trades.

For the year 1924 the mean of the monthly index numbers of cost of living was 75 per cent.\* above that for 1914. It will be observed that this figure corresponds very closely with the average rise of weekly rates of time wages which we have found to be between 70

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\* For 1925 the figures as to the rise in the index number of cost of living and in average weekly full-time rates of wages in all industries were about the same as those given in the text for 1924, viz., 75, while the index number of wholesale prices was six points lower (60); hence the conclusions based on the relations of these figures to each other in 1924 would apply also to the following year.

and 75 per cent.,\* taking all industries and all classes of workpeople into consideration. On the other hand, the increase of the index is materially in excess of the average rise of weekly rates of time wages in the trades most exposed to foreign competition, and below the average rise in the so-called "sheltered" trades. Moreover, the rise in the index of cost of living exceeds the average rise of weekly rates of time wages for skilled workers and falls short of the average rise for unskilled workers, taken as a whole.

If we attempted to measure roughly the change of "real" wages for each of the above-mentioned classes of workmen by the simple expedient of dividing the estimated percentage increase in weekly rates of money wages by the index of cost of living, we should find that, taking the 1914 level as 100 in each case, the average "real" rate of time wages for skilled workers at the end of 1924 would be round about 94 and that for unskilled workers about 106. Taking separately the exposed and "sheltered" industries as described above, we should find that in the former group the average "real" time rates of wages would be roughly represented by 91 and in the latter group by 114. Too much importance must not be attached to these precise figures; in view of the uncertainty of some of the data, they must be regarded rather as rough approximations than as ascertained percentages. But whatever qualifications may apply to the actual figures, it is a legitimate inference from the available data that, in industries in which time rate of wages prevail, skilled workers employed in industries directly exposed to foreign competition were in 1924 on the average less well off than before the war, while, on the other hand, unskilled workers generally, and workers both skilled and unskilled in the so-called "sheltered" industries, have generally speaking, if with some exceptions, improved their average position as regards purchasing power.

Needless to say, the above conclusions, being based on weekly rates of wages, apply to workpeople in full employment, and take no account of the allowances to be made at the two dates 1914 and 1924 for unemployment, short time or overtime. The qualifications to be made on this account are discussed below (see pp. 22-3, 30-6).

We have now to consider how far the above inferences may be modified by such considerations as the prevalence and recent spread of piece-work or other methods of industrial remuneration dependent on output.

In 1906, the year to which the last comprehensive inquiry into earnings referred, the proportion of workers in industry on time rates of wages was found to be no less than 75 per cent. of the whole number covered by the returns.† There are no official statistics as

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\* See also Table on p. 97.

† We shall see below (p. 16) that this figure exaggerates considerably the real proportion of time to piece workers in the trades of the country as a whole, but there is no doubt that in 1906 the majority of workers were employed at time rates.

to subsequent changes in the proportions, but it is indicated in the Memorandum on p. 105 that, on the whole, recent tendencies have been towards an extension of piece work, including under this term all systems of payment by results. It is evident that the change of weekly piece-work earnings cannot be accurately represented by a mere comparison of piece-work prices, since it is directly affected by a number of other factors which there are no official data for determining. It is, however, a matter of common knowledge that, in trades in which piece and time rates are worked side by side by similar workers on similar classes of work for the same hours, piece-work earnings are usually higher than time rate earnings. Hence, in any trades in which piece-work has become materially more prevalent since 1914, the true average rise in weekly earnings will be somewhat greater than the recorded rise in time rates. In the absence of any official data which will enable precise allowance to be made for this factor, we may be permitted, for the purposes of illustration, to refer to statistics collected from its members by the Engineering and Allied Employers' National Federation which show that in April, 1924, the general average rise of money earnings since July, 1914, for engineering workers, including both skilled and unskilled, was about 73 per cent. when working on piece, and 65 per cent. when working on time. The general average rise of earnings (piece and time), taking into account not only the increases of time and piece earnings but also the shift from time to piece, is also stated to have been about 73 per cent. While, therefore, as stated above, skilled workers at time rates in the more exposed trades in 1924 were on the average less well off than before the war, the same does not necessarily apply to skilled workers on piece work, whose total number has tended to increase as compared with time workers.

*" Real " Wages in other Countries.*

It is a matter of great interest to compare, so far as possible, the course of " real " wages in this country with their trend in the other principal commercial countries, but for such a comparison the materials available from official sources are very scanty. The only statistical data before us are the results of an interesting and ingenious inquiry carried out periodically during certain recent years by the Ministry of Labour, and now continued on somewhat similar lines by the International Labour Office. The inquiry has been based on the rates of hourly wages in certain employments and the cost of living prevailing in fifteen capital cities.

The table on p. 100 enables a rough comparison to be made of the estimated purchasing power of an hour's wages in the selected cities and occupations, in terms of the articles of food which enter into the Ministry of Labour's index number of cost of living. The assumptions implicit in these estimates, and the necessary defects in the methods employed, lend themselves to easy criticism, and

caution is necessary in interpreting the results. The problem, however, is at the same time so important and so complex, and the data are so scanty and imperfect, that we cannot afford to neglect any information which contributes, however partially, towards filling the existing gap in our knowledge of the essential factors of the economic situation. It is necessary to emphasise the fact that the figures in question are based on the British standard of food consumption. The result is that what is compared is not the actual "real satisfaction" obtained by a workman in Paris, Berlin, &c., from expending his wages on the articles which enter into his customary budget, but the purchasing power of his wages if expended on the articles which a British workman is accustomed to purchase. A little consideration will show that the effect is to exaggerate somewhat the deficiency of "real" wages in continental countries in which habits of life differ materially from those in Great Britain\*.

With these qualifications, it may be said that the figures for June, 1924, indicate that in New York and Ottawa the purchasing power of an hour's wages in terms of food was roughly double that in London, while at the other end of the scale are Rome and Vienna with purchasing power less than half that of London. The figures for Paris and Berlin were each about two-thirds, and that for Brussels about three-fifths, of the London figure.†

In view of the wide divergence among the indices for the different areas, the arithmetic average of the entire range would be a figure of little significance. If, however, we confine attention to the capitals of the seven continental countries included in the table which were involved as belligerents in the war, it is of some interest to note that, in June, 1924, the average of these seven indices of

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\* This is confirmed by an examination of the second set of available figures (see Table on p. 102), which have been issued by the International Labour Office, with the object of endeavouring to measure the purchasing power of wages on the basis of the dietaries of the various countries. These figures make the index number of "real" wages in Berlin, at 1st July, 1925, sixteen points higher if estimated according to "Central European" standards of consumption than when calculated on the basis of the British standard. The corresponding differences given for Rome and Brussels are four and three points respectively.

† In 1905, according to the Reports of the Board of Trade Inquiry into the cost of living and rates of wages in certain foreign countries, the average purchasing power, in terms of food, of an hour's wages in the occupations investigated in France was about 58 per cent. of that in the United Kingdom, in Germany about 64 per cent. and in Belgium (1908) about 53 per cent. These percentages are based on the British standard of food consumption as described in the Reports. If based on the standards of the respective countries, the figures would be 60, 71, and 55 per cent. respectively (See Cd. 4032-1908, Cd. 4512-1909, and Cd. 5065-1910).

The comparability of the foregoing figures with those given in the text is no doubt affected by differences in the occupations included and the budgets assumed in the two investigations. Moreover, the Board of Trade Inquiry covered countries, whereas the figures in the text relate to capital cities.

"real" wages (in the sense already explained) was 68 per cent. or slightly more than two-thirds of the London index. If an appropriate allowance be made for the effect of basing the comparison on British standards of consumption, it is not unreasonable to conclude that in June, 1924, the average purchasing power of an hour's wages in terms of food in the selected occupations in the capitals in the group was in the neighbourhood of three-quarters of the London level.

It is necessary to remember that the above estimate is based on the internal purchasing power and not on the external exchange values of the various local currencies, which in some cases have diverged materially from their internal values. Owing to the rapid fluctuations of the European exchanges and the paucity of official data with regard to Continental wages, it is not possible on the basis of official statistics to give any precise calculation of the comparative levels of Continental and British wages estimated in gold. Such information, however, as is obtainable from official and unofficial sources makes it clear that in some of the principal European countries with which this country is in competition, especially those in which there has been a considerable depreciation of currency, the gold value of wages is lower than that of British wages by an amount considerably exceeding the difference in their internal purchasing power. To take a single example, statistics supplied by the Engineering and Allied Employers' National Federation indicate that in France, Germany and Belgium, the time rates of wages for engineers at the end of 1924, converted into sterling at the then current rates of exchange, averaged roughly 60 per cent. of those prevailing in Great Britain, whereas the table on p. 100 indicates that the "real" purchasing power of engineers' wages in the capital cities of those countries in June, 1924, averaged about 70 per cent. (or with the necessary allowance for the difference in standards of consumption, say, 75 per cent.) of that in London. Though the figures are not precisely on the same basis, a comparison between them indicates an appreciable margin of difference in 1924 between the index numbers of engineers' wages according as they are based on internal purchasing power or external exchange value.

This conclusion is confirmed by a calculation recently made by the Board of Trade of the difference between the internal and external value of the franc in France and Belgium and the lira in Italy at the end of 1924, based on the movements of the price indices and exchange rates in those countries. The result was to show a difference of between 16 and 17 per cent.

It will be clear that the margin of difference to which attention is here directed may be a factor of considerable economic interest, since it must operate as an indirect premium on export in the case of a country with depreciating currency. This premium is essentially temporary, in the sense that it depends on the "lag" between

fluctuations in the exchange value of currency and the corresponding adjustment of the internal level of prices and wages. So long, of course, as the process of currency depreciation goes on, the differential will be continually renewed, and the premium will continue; but when once the exchange has become stabilized, the internal and external value of the currency will tend to become assimilated, and the premium on export caused by their divergence to disappear. To avoid possible misunderstanding, it may be observed that the indirect premium on export considered above is that resulting from a discrepancy between the internal and external value of a country's currency, and has no reference to the premium which in certain cases may result from a "lag" between the upward movements of prices and of wages, or to the question of any competitive advantage that may be supposed to result from low wages as such.

The table on pp. 103-4 enables a very rough comparison to be made between the percentage changes in the internal purchasing power of an hour's wages since 1914 in the same group of fifteen great cities, as measured by the movement of money wages corrected by the national index numbers of cost of living. The resulting indices of purchasing power show a wide range, from 100 per cent. in Rome up to no less than 177 per cent. in Amsterdam. The figure given for Paris is 124, for Berlin 107, and for Brussels 135. For the group of seven Continental capitals already referred to above, it is found that the average index was 118 or a little more than that for London (111). It should be remembered in this connexion (1) that the comparison is based on *hourly* wages, which in consequence of the reduction of hours have advanced more than weekly rates; (2) that the comparison relates to movements of internal purchasing power and not of gold values; and (3) that the national index numbers of cost of living which are used in the calculation are not constructed on a fully comparable basis.

#### *The Course of Wages in different classes of Industries and Occupations.*

In the foregoing survey of wage changes in Great Britain, a distinction has been drawn between the course of wages in the industries most directly exposed to foreign competition and in employments which are less exposed to such competition. The figures quoted tend to show not only that money rates of wages in the so-called "sheltered" employments exhibit a greater percentage increase since 1914 than in the exposed trades, but that the average levels of wages in many of those employments, both for skilled and for unskilled workers, are now materially higher than those generally prevailing in occupations which most nearly correspond to them in the more exposed trades. As the relation between "sheltered" and exposed industries in respect of wages has recently aroused widespread discussion, it may be of interest to consider more closely the causes of the observed difference, and how far it is likely to be a transitory or a permanent phenomenon. Broadly speaking, it may

be said that no industrial occupation is wholly "sheltered" in the sense that the remuneration appropriate to such occupation is in the long run independent of the world forces of supply and demand. Even if its products are not in direct competition with those of other countries, there are other channels, direct or indirect, through which competitive forces will make themselves felt. For example, a comparatively small change in the habits of consumers under the pressure of excessive prices, or a comparatively small change in the distribution of the existing or prospective labour supply as between the less attractive and the more attractive employments, may tend ultimately to restore the economic balance between exposed and "sheltered" trades.\* But these levelling forces require a comparatively long period to produce their full effect, whereas in trades directly exposed to foreign competition the price at which the competing article will capture or fail to capture the market imposes immediate and obvious limits on the prices which can be charged and consequently on the resources available for wages and profits. Bearing in mind these considerations, we can see that the difference between a "sheltered" and an exposed industry as regards prices and wages depends in the main on the element of time. An exposed industry responds immediately to changes of economic conditions; in the case of a "sheltered" industry there may be a "lag" of months or even years between such changes and the eventual readjustment; and, in the meantime, there may be a noticeable discrepancy between the conditions prevailing side by side in different groups of industries. In ordinary times the difficulty is but a limited one, but in times of great and sudden changes of prices and conditions, such as the period through which the country has been passing since the war, the want of proportion between the remuneration of the exposed and "sheltered" industries may be and has in fact been substantial.

Another feature of the changes in rates of wages since 1914 which is clearly brought out by the figures already given is the greater percentage rise in the wages of unskilled as compared with skilled workers. The figures show that, broadly, the money additions to the wage rates of the two classes have been roughly equal in amount; but, generally speaking, in pre-war times the wages of the two classes have moved, not by equal amounts, but by equal percentages, and in this sense the movement of the last ten years has been relatively advantageous to the less skilled classes of workers. The change began early in the war and arose out of its necessities. Until

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\* That such a gradual redistribution of labour has been taking place is clear from the statistics of Unemployment Insurance published in the issue for December, 1925, of the Ministry of Labour Gazette. These statistics show that in the two years July, 1923—July, 1925, the numbers of insured workpeople in five typical "exposed" industries (i.e. Iron and Steel, Engineering, Shipbuilding, Cotton, and Wool) fell by 110,000, while those engaged in the distributive trades rose by double this amount.

the conditions affecting the supply of skilled and unskilled labour for different groups of industries have been examined in detail, it would be premature to express any definite conclusion as to the permanence of the change or as to the probability of a reaction. The question here opened up has an evident bearing on the relative attractiveness of different industries as affected by rates of remuneration and the length of necessary preparation.

*Methods of Wage Payment and Adjustment.*

Reference has already been made to the broad distinction between "time" and "piece" as the basis of wage payment, and it has been indicated that the latter system has probably been gaining somewhat on the former. The proportion of three-quarters time-workers and one-quarter piece-workers mentioned in the memorandum on p. 105 on the authority of the 1906 inquiry gives a somewhat incorrect idea of the relative prevalence of the two methods at that date, since the great industry of coal mining, in which a much higher proportion of piece-workers is found, was not represented in the returns. If the figures given on p. 105 for the different industries be weighted, not by the numbers included in the returns, but by the numbers of persons employed in each group, and if due weight be given to coal mining, we arrive at a figure of 72 per cent. time-workers to 28 per cent. piece-workers.\*

If, moreover, we confine attention to the exporting group of industries specified on pp. 110-8 of the memorandum, we find that the proportions in 1906 were 60 per cent. time to 40 per cent. piece. Hence, bearing in mind the tendency since 1906 towards an extension of piece-work in some of these industries, we conclude that, in the group referred to, the number of piece-workers is probably not very far short of that of time-workers. The groups of exporting industries in which piece-work in its widest sense is most prevalent are the textile, mining, iron and steel and clothing groups, while time-work is still much the most usual method in the engineering and kindred trades, and chemical manufacture. It is perhaps in the engineering and kindred trades that the recent shift from time to piece-work has been most noticeable.

We have here used the term "piece-work" as a short description of a variety of methods of payment by results. An account of the various forms of wage payment is given in the memorandum on pp. 107-9. While it is made clear that "the most common form of payment by results is that of plain individual piece-work," a number of variants are described, including different forms of "collective" piece-work, under which the piece-work earnings of a group of workers are distributed on a stipulated basis among its

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\* Excluding agriculture.



members, e.g., in the case of cotton spinners and piecers, corn-porters, and rolling gangs at iron and steel works, and in the textile finishing trades. There are also in force a number of methods of payment which combine elements both of time and of piece-work, including all kinds of "bonus" systems, as, for example, those prevailing among blast-furnace men and glass-bottle makers, or those found in certain engineering works, boot and shoe factories and elsewhere.

While the numbers of persons working under these various methods of wage payment fall far below those to whom the system of individual piece-work applies, a special interest attaches to them, and especially to some of the more recent experiments, as representing a series of more or less successful attempts to solve, for particular industrial groups and conditions, one of the central wages problems of the present time, viz., how to combine the maintenance of a reasonable standard of weekly earnings with a maximum of output obtainable at a given wages cost. It is a common criticism of systems of pure time-work or of unregulated piece-work that each of them, in pursuit of one of these objects, is apt to take insufficient account of the other. No doubt one important defect of unregulated piece-work, viz., the danger of the arbitrary cutting of prices, is now largely removed by joint agreements as to piece-prices or systems. In some trades this safeguard is regarded as sufficient, and piece-work is firmly established and popular. Under other industrial conditions, one or other of the alternative schemes of wage payment referred to above has sometimes been found preferable to individual piece-work pure and simple. We hope that the Ministry of Labour will keep experiments in methods of wage payment under close and continuous observation, even though the numbers of workers covered by any particular experiment may be comparatively small.

Various forms of machinery exist in the more organised trades for determining the changes to be made from time to time in the level of wages to meet changes of economic conditions. In some cases the basis for such changes of wages is pre-determined by agreement, e.g., it may be selling price or net profit or cost of living, or some combination of these or other factors. In other cases, the settlement of changes in wages is left to the free determination of a joint committee, with or without an umpire. An account of the existing arrangements for this purpose is given in a later section of this introduction (*see* p. 41), which also describes the machinery set up by law for the compulsory fixing of minimum rates of wages in certain employments.

Before concluding this section, a brief reference should be made to the method of industrial remuneration known as "profit-sharing." Profit-sharing schemes differ widely in detail, but they all agree in making the remuneration of the employees, or of some classes of

employees, depend in part on the rate of profit realised by the undertaking in which they are employed. The Memorandum on the subject which is given on p. 318 does not indicate any very marked development in recent years. It shows that, at the end of 1924, 230 firms or companies were known to practise profit-sharing, and that, of their 340,000 employees, about one-half (viz. 172,000) were eligible to participate in the benefits of the schemes. In 1913, the number of firms was about 150, employing about 150,000 persons, of whom about 70,000 were eligible to participate. An inspection of the details published by the Ministry of Labour makes it clear that the success or failure of profit-sharing as a method of industrial remuneration depends partly on the circumstances of the trade, and also largely on the personal factor.

Another method of industrial remuneration that has been adopted on a considerable scale in certain foreign countries, though not in Great Britain, is the system of "family allowances" under which the total remuneration of a worker is made to depend in some measure on the number of persons who have to be supported thereby. The adoption of this system clearly entails the provision of some pooling arrangement to avoid handicapping men with families in obtaining employment. The Memorandum on p. 123 shows that family allowances were introduced in a number of Continental countries as a method of counteracting the effects of the rise in cost of living due to the war. In several of these countries they have since been discontinued, but they still prevail fairly widely in some, e.g. in France, where the declining birth rate furnishes a special reason for an expedient of this kind. In Belgium, where the system is also not uncommon, more than half the recipients of family allowances are miners.

#### HOURS OF LABOUR.

The consideration of rates of wages leads naturally to that of hours of labour, the next important factor both in the material well-being of the wage earner and in the cost of industrial production. From the point of view of the workman, the limits of hours of work are also the limits of the hours which remain for rest, recuperation and leisure, while the length of the working day (assuming the intensity of the work to remain unchanged) measures the total expenditure of effort for which wages are the recompense. From the point of view of the employer, the importance of the length of the normal working day lies chiefly in its bearing on industrial costs through its influence over general production charges, and also, where circumstances do not admit of variations in the labour force, on the rapidity with which contract work can be completed. Except in the case of industries in which double or treble shifts are worked, the daily hours of labour of the workmen usually fix the periods during which the undertaking can be carried on and those during which

plant and machinery must lie idle and unremunerative. While, however, the entire overhead costs have to be spread over the output of that part of the day during which production is actively carried on, the volume of this output does not depend solely on the length of hours, since the rate of hourly production is undoubtedly influenced by various conditions, e.g., fatigue. How far, in any industry, reduced hours of work tend to increase or lengthened hours to diminish the rate of output is a question which can only be examined in relation to the special circumstances of that industry. We return to this subject below when describing the work of the Industrial Fatigue Research Board.\*

#### *Recent Changes in Hours of Labour.*

In the case of women and young persons, the Factory and Workshop Act, 1901, limits the permissible weekly hours of work, but no such statutory restriction exists in the case of adult men, except as regards coal-mining. Such information as is available from official sources with regard to hours of labour and their recent movement is given in the Memorandum and Tables on p. 128 and on which the following summary is based.

The inquiry by the Board of Trade into Earnings and Hours of Labour in 1906 showed that, at that date, three-quarters of the workpeople covered by the inquiry had a normal working week of from 50 to 57 hours, and that the general average (due allowance being made for the necessary weighting) was about 54 hours.† Between 1906 and 1914, no general change of hours in industry was recorded, except in the case of coal miners whose hours of labour underground were limited to eight per day by the Act of 1908. With this exception, such changes of hours as were reported to the Department during the seven years 1907-13 were insufficient to affect materially the general average.‡ Thus, taking the reduction of coal miners' hours into account, we should probably be justified in estimating the average weekly hours of industry immediately before the war at between 53 and 54. This estimate is confirmed by the figures in the Table on pp. 433-43, which shows the hours recognised as constituting a full week's work in various industries at certain dates. It will be seen that, before the general reduction in hours, the great majority of the quotations fell within a range of 50 to 56 hours, the mean being between 53 and 54 hours.

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\* See p. 26.

† Excluding mining, but the inclusion of mining would have made little difference to the average. The inquiry did not include agriculture.

‡ The total number of workpeople recorded by the Department as affected by changes of hours during the seven year period, 1907-13, was only about a million, of whom roughly half were coal miners. No doubt there were also changes which were not recorded.

The movement for a reduction of hours which took place during 1919 and 1920 had the effect of reducing the average number of weekly hours to about 48. Of over 120 quotations in the Table relating to June, 1925, over two-thirds were 48 or 47 and nearly one-half were 48. Probably in less organised industries the hours worked are longer, but this was also the case before the war, and should not greatly affect a comparison between the pre-war and pre-war hours. We may therefore say broadly that the recognised weekly hours of labour in British industry have since the war been reduced on an average by five or six hours, or roughly by an average of 10 per cent. of the pre-war hours. The greatest reductions have taken place in industries which were previously working two shifts of 12 hours, and which, under the new system work three shifts of eight hours; while generally speaking, and with the important exception of coal mining, the reductions have been least in the industries which before the war had a working week below the usual average in length (e.g., iron stone mining, flint glass manufacture, dyeing and cleaning). In the case of employment underground in coal mining, the limit of eight hours which, as stated above, was fixed under the Coal Mines Regulation Act of 1908, was changed to seven by the amending Act of 1919.

An eight-hour day is usually the counterpart of a week of 48 hours or less, Saturday being usually a short day, but in certain industries in which work is necessarily continuous (e.g., pig iron manufacture, heavy chemicals, &c.) some of those employed may work several shifts in the same week.

Practically the whole of the post-war reduction of hours occurred in 1919 and 1920, the years of abnormally active trade preceding the great depression and fall of prices which have since taken place. During those two years, reductions averaging six hours per week and covering seven millions of workers were reported to the Minister of Labour, and doubtless many other reductions escaped record. Since 1920 the recognised hours of labour in most industries have remained stationary, the few cases in which there have been slight increases (e.g., the summer hours in the building trades) not being sufficient to affect the general average. The trade depression of 1921 and following years, which resulted in a reduction of wages had practically no influence on hours.

This contrast between movements of wages and hours in periods of good and bad trade is no new phenomenon. During the 20 years before the war, when the rates of money wages exhibited periodic upward and downward movements in sympathy with the oscillations of production, prices and employment, there was continuous though very gradual tendency towards the shortening of the working day. Thus the records of the Board of Trade show a net decrease of hours in each year from 1894 to 1913, though the

aggregate fall recorded during the twenty years would not amount to an hour per week if spread over the whole industrial population.\* From time to time, the movement was accelerated or retarded by various causes, including doubtless the state of trade, though the available figures do not indicate any close correlation between movements of trade and hours of labour. But in no single year was the movement reversed.

It is to be understood that the hours of work to which reference is made in the official table quoted above are the hours generally recognised as constituting a full week's work exclusive of overtime. There are, of course, in most industries, a certain number of employers and workpeople who are not bound by any general agreement as to hours, or who, though parties to that agreement, may fail to observe it; and in these cases the hours worked may be considerably longer than those generally recognised. But, in the majority of cases, the recognised hours, though formally binding only on the members of the representative organisations, are in fact followed by many employers and workpeople outside those organisations.

There is, however, one important qualification which must always be remembered, viz., that in practically all industries in which hours are regulated by agreement, there are also agreements providing for the working of overtime, sometimes within specified limits, sometimes without limit, on payment of extra rates of wages varying generally from "time and a quarter" to double time. Particulars are given on pp. 131-8 and in Table 10, p. 433, of the overtime conditions prevailing in the principal industries in Great Britain. The most general rule in the case of time-workers is for the payment to be at the rate of "time and a quarter" for the first two hours of overtime on any one day, with a higher rate (usually time and a half) for overtime worked in excess of this limit. There are many exceptions, e.g., coal mining, where the rate is time and a third, engineering and certain other trades where it is time and a half, and a few trades in which a certain amount of initial overtime is only paid for at ordinary rates. Double rates are usually, though not invariably, paid for Sunday work. The conditions of overtime payment for piece-workers vary very considerably.

The graduation of overtime rates is, of course, intended to check the undue extension of the practice, and in any case the diminished output of labour after a certain point of fatigue has been reached puts an automatic limit—not always perceived by those concerned—on the economic utility of overtime from the point of view of cost of production. There are, however, emergencies to which all industries are liable when the working of overtime may be essential; and, apart from such emergencies, the elasticity permitted by suitable overtime arrangements is highly valued in industries

\* See Abstracts of Labour Statistics: "Changes in Hours of Labour."

subject to unforeseen fluctuations in demand. The Memorandum shows the variety of arrangements which are now in force in different industries for this purpose.

On the whole, there has been little general change since pre-war times in the ratio between overtime and ordinary rates of pay, though in some cases where national negotiations have superseded local agreements the tendency has been to level up the rates for overtime to those prevailing in the areas where conditions were most favourable.

Besides the graduation of overtime rates, some agreements, though not the majority, limit the amount of overtime which may be worked, except in cases of breakdown or other emergency. Among the exporting group of industries to which the attention of the Committee is being primarily directed,\* the engineering and shipbuilding trades, the textile finishing trades, and the woollen and worsted industries are the principal groups in which such limitation by collective agreement prevails. In the engineering and shipbuilding trades, overtime (except for emergency) is limited to 30 hours in four weeks. In the textile finishing trades, there is a weekly limit of twelve hours. In the woollen and worsted trades, all overtime for women and young persons is subject to a permit from the Joint Industrial Council. For underground workers in coal mines, there is a statutory restriction of overtime to one hour a day on 60 days of the year.

#### *Short Time and Under-employment.*

In a period of depression such as the present, a much more serious factor than overtime is the reduction of hours, or of the opportunities of earning wages, by under-employment, whether by the total dismissal of workpeople, or by the more or less systematic practice of working short time or attending fewer machines. The former of these methods of reduction results in the total unemployment of a certain margin of workpeople. The second method spreads the available work over the entire body of workpeople. It has for many years been the predominant method by which the cotton and the woollen and worsted trades and the coal mining industry have met ordinary fluctuations in the demand for labour. The present long-continued depression, however, has caused the closing of many coal mines and the total unemployment of a large number of miners. In this matter, the widely differing conditions of different industries have naturally evolved a variety of practices, and doubtless these practices have sometimes been affected in late years by the establishment of a national system of Unemployment Insurance. While there can be no doubt that the total reduction in hours worked resulting from systematic short time must in some industries be very considerable in years of depression, the corrections to be made in standard hours on account of such factors as overtime and

\* See Note 3, p. 54.

short-time in order to arrive at the real hours worked in an industry, vary so widely from year to year according to the state of trade, and the available data are so scanty, that no average figure can be arrived at, on the basis of official returns.\*

Mention should be made here of one phase of the question of short-time employment, which presents special features and difficulties in the case of certain fluctuating industries largely dependent on casual labour. In this connection, reference may be made to the Memorandum which appears on p. 166. Perhaps the most typical of the industries in which this problem of casual labour is acute is that of port employment, which is subject not only to the general fluctuations, seasonal and cyclical, by which employment as a whole is affected, but also to every kind of day-to-day irregularities caused by the arrival or non-arrival of ships, weather conditions, &c. Hence the number of port labourers employed on any one day is usually far below the total number following the occupation, with the result that a considerable proportion of the labourers are chronically under-employed. For example, when, at Liverpool, a scheme of registration was introduced in 1912, the average number of men working was found to be about 20,000, whereas the number of men registered was 31,000.† When the Port of London Registration Committee was set up immediately after the war, 61,000 dockers received tallies though the average number of men normally required each day was estimated at about 34,000.

These figures indicate that, at some of the great ports, the employment offered is on the average only sufficient to provide three or four days' work per week for the whole body of men following the occupation; and, if account be taken of the fact that a certain number of these men work practically full time, it is evident that there must be a large number who habitually work for half time or less. This chronic under-employment, caused, not as in the textile or coal mining industry by any general depression of trade, but by the normal conditions of the industry itself, presents a very complex and difficult social and economic problem which we are glad to know is now being studied by a Joint Committee set up as part of the terms of settlement of the dock labour dispute of 1924.

#### *Hours of Labour in Other Countries.*

The movement towards reduced hours of labour in Great Britain is only part of a still more general movement in the same direction throughout a great part of the world. The widespread feeling in favour of reduction of hours at the close of the war is illustrated by

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\* There are, of course, other important deductions to be made from "recognised" hours of work before the actual average yearly employment or earnings could be calculated, e.g., those arising from unemployment (see p. 32 below), and from sickness, voluntary absence from work (including holidays) and trade disputes (see p. 39.)

† This discrepancy has since been considerably reduced at Liverpool by the gradual reduction of the number of registered men.

the reference to the matter in the Peace Treaties where, subject to certain reservations for climatic and economic differences, the adoption of an 8 hours day or a 48 hours week is laid down as "the standard to be aimed at where it has not already been attained."\*

The Memorandum on p. 38 shows that, in the period immediately following the war, legislation was enacted in a large number of countries for the establishment of maximum hours of labour (usually in principle 8 per day or 48 per week) in some or all of the principal industries. The countries which enacted such legislation include most of the principal European countries and a few States of Latin America. New Zealand and New South Wales had recognised the principle of the 48-hour week before the war. Other Australian States have now also recognised the principle, and a law for the same purpose took effect in British Columbia on January 1, 1925.† Neither the United States of America nor any State thereof has enacted general legislation restricting the working hours of adult men. It will be seen from the Memorandum that European countries differ very materially among themselves both in the scope of their legislation and in the exceptions permitted, as well as in the interpretation put upon the laws by the administrative authorities, and the stringency of their enforcement. There has been a tendency in several of these countries to qualify the rigour of the application of the legal restrictions by various expedients, either provided for in the laws themselves, or involving their amendment. Examples of such relaxations are the permission to employers and workmen to lengthen the hours by agreement (e.g., Germany, Italy and Netherlands), the widespread grant of permits and elastic interpretations (e.g., France and Switzerland), or the liberal recognition of overtime (e.g., Sweden, Norway and Belgium). Fuller particulars of these measures are given in the Memorandum. It is not possible in these circumstances to make any comprehensive statement as to the hours of work actually prevailing in the chief foreign countries, but the following particulars for certain countries are of interest.

In May, 1924, an inquiry was carried out in Germany by the General Federation of German Trade Unions, of which the results are given on pp. 149-50. The inquiry showed that, in seven groups of industries, over half the workpeople worked more than 48 hours a week, and more than one-eighth worked more than 54 hours. A later inquiry (November, 1924) showed that these proportions had been slightly reduced. In coal mining, the working hours per shift, which just before the war had been about 8½, had, for the period 1920-23, been 7, and for 1924 had been increased to 8.‡

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\* Treaty of Versailles, Article 427 (part of the "Labour Covenant").

† The Laws of Queensland, New South Wales, and British Columbia provide for an 8 hours day. Those of New Zealand and W. Australia restrict daily hours to 8½.

‡ In Upper Silesia the hours have throughout been about half an hour longer than in the other districts.



Inquiries made in Italy in the middle of 1923 showed that 88 per cent. of the workpeople covered by the investigations had a normal week of 48 hours. In Switzerland, at about the same date, 59·2 per cent. of workers were found to have a 48 hours week, while 30·6 per cent. had a longer and 10·2 per cent. a shorter week. In Holland in 1924 the 48 hours week applied to 72 per cent. of the workpeople in the metal and engineering trades, while 21 per cent. worked more and 7 per cent. less than 48 hours.

In Great Britain no corresponding legislation has been enacted, except the Act of 1919 which reduced the daily hours of underground workers in coal mines to seven. This industry remains the only one in which the hours of labour of adult men are legally limited, though the long-standing limitation of the hours of women and young persons under such laws as the Factory and Workshop Acts has in practice often resulted in limiting the hours worked by men in the same establishments.

In addition to the legislative measures referred to above, and to the reduction of hours effected in Great Britain and elsewhere since the war by voluntary agreements between employers' and workmen's organisations, an effort was made through the International Labour Organisation, constituted under the Treaties of Peace, to deal with the question immediately after the war by means of an International Convention establishing a general 8 hours day and 48 hours week, subject to certain reservations based on technical, climatic and economic considerations. So far, however, the resulting Convention has been ratified by very few States.\*

## WELFARE.

Passing from questions of remuneration and hours of labour, we are confronted by a group of miscellaneous questions which are known collectively as "working conditions" or (to use a modern term) "welfare" and which demand separate consideration, since in the aggregate they have a profound influence not only on the well-being of the worker but also on the efficiency of industrial production. Some of the matters which fall under this comprehensive description (e.g., safety and health) have long been the subject of State regulation through Factory and Workshop Acts, Mines Regulation Acts, the Merchant Shipping Acts, and other codes of social legislation. Others (e.g., meal times, &c.) are commonly regulated by the ordinary agreements between employers and employed which

\* The Convention has been ratified by Bulgaria, Chile, Czechoslovakia, Greece, Latvia and Roumania; also by India, in whose case, under the terms of the Convention, the limit of 60 hours is substituted for that of 48 hours. Austria and Italy have accepted the Convention on certain conditions, the chief of which is that they will put it into force only when the other European countries of chief industrial importance have ratified.

deal with wages and hours. But quite recently, and especially during and since the war, there has been a strong movement towards providing in a better and more systematic manner for what has come to be known as "organised welfare work."

It is one of the beneficial legacies of war-time experience that there is a more widespread and intelligent appreciation of the social and economic importance of all factors which diminish the fatigue and enhance the fitness of the worker, and improve the amenities of the work-place. Broadly speaking this movement has taken four forms :—

(1) The organisation of scientific research and experiment into questions of industrial fatigue and its relation to output, including under the term "fatigue" all the factors arising out of conditions of employment by which a worker's fitness is impaired ;

(2) the authorisation by Parliament of certain measures to improve welfare conditions in factories and workshops, and in coal mining ;

(3) the promotion, through joint industrial councils or other machinery for joint discussion between employers and employed in a number of industries, of various forms of voluntary welfare work for the benefit of the industry concerned, beyond the minimum imposed by law ;

(4) provision for the organisation of systematic welfare work within individual industrial establishments through the appointment of welfare officers and in other ways.

The first of these sub-divisions is dealt with in the Memorandum on p. 171. As regards the others, reference may be made to the Memorandum on p. 179, and (in regard to coal mining) to that on p. 196.

The following brief comments refer to each of the above sub-divisions in order :—

(1) *Industrial Fatigue*.—It is unnecessary to emphasise the importance of the systematic development of organised research on sound lines into the psychology or physiology of industrial fatigue and the practical workshop problems connected therewith. It will be remembered that, when speaking of hours of labour as a factor in the rate of output, we indicated that the relation between the two is by no means a simple one, inasmuch as output depends not only on the duration, but also on the intensity of work, and the latter element is liable to be affected by a number of circumstances some of which (e.g. fatigue) are directly connected with the length and arrangement of the hours of labour. The Memorandum on the work of the Industrial Fatigue Research Board\* gives an

\* As explained in the Memorandum, the Industrial Fatigue Research Board is practically a Government institution, being controlled by the Medical Research Board and supported almost entirely by public funds. It was established in 1918 to continue the work initiated by the Health of Munition Workers' Committee.

account of the origin, scope and character of the investigations which the Board have been carrying out since the war into this aspect of industrial relations. The Memorandum indicates that the researches of the Board have as yet hardly gone beyond the stage of estimating the probable effects of various changes in factory conditions, and much further experiment, in close co-operation with persons possessing practical experience in industry, is necessary before any quantitative conclusions as to the actual effects arising from the general introduction of these changes can be definitely established. It is, however, possible to infer from the results already obtained that in a given industry (assuming all other conditions to remain unchanged) the lengthening of the working day beyond a certain point or possibly a certain zone, which may be termed the "economic limit," results in a falling off in production not only per hour but per shift, while on the other hand the reduction of hours below this limit, though it may lead to an increased output per hour, will result in a diminished output per shift. The "economic limit" thus defined needs to be investigated for each important industry separately. It will probably be found that the influence of fatigue on output is greatest in heavy manual industries, and least in those in which the rate of production is practically controlled by automatic machinery.

It is necessary to remember that the limit above referred to is only one factor, though an important one, in determining the most economically advantageous length of the shift. Where, for example, it is possible to organise double shifts, the consequential saving in overhead charges may more than balance any loss through a shortening of the length of each shift. For this reason, the Industrial Fatigue Research Board have recently devoted more attention to questions of output per unit of time than of output per shift. Other results of the researches of the Board are to establish the importance, in relation to output, of fatigue and of such matters as the arrangement of hours, the length of spells of work and the provision of rest pauses where practicable within long spells, the lighting and ventilation of work-places, &c. Broadly speaking, these investigations aim at minimising the physical and mental fatigue and discomfort incidental to a given output, or (which comes to the same thing) maximising the output attainable at the cost of a given amount of fatigue and discomfort. Manifestly any results obtainable along these lines may have important bearings on industrial efficiency and relationships, and such researches, if carefully and systematically pursued, should furnish a basis for the various types of practical measures on which we proceed to comment.

(2) *Statutory and Administrative Measures.*—A great part of the provisions of Factory and Workshop Acts, Mines Regulation Acts, Merchant Shipping Acts and the like may in a sense be regarded as "welfare" provisions, inasmuch as they aim at establishing and enforcing a minimum standard of safety, health and conditions of

work in the undertakings to which they apply. Important, however as these provisions are, it is not thought necessary to give a detailed account of them in this volume inasmuch as they are generally well known and recognised and have not been greatly modified during the past decade. Considerable progress has, however, been made since the war in dealing with the special circumstances of individual industries by the issue of "dangerous trades regulations" under the Factory and Workshop Act, 1901; and in the field of legislation reference may be made to the Employment of Women, Young Persons and Children Act, 1920, which dealt with such matters as restriction of night work and age of employment, and to a section of the Workmen's Compensation Act, 1923, under which first-aid provision has been required in all premises to which the Factory Acts apply. Important action has, moreover, been taken by the Home Office and the Ministry of Mines for the promotion of welfare work in its modern sense in pursuance of Section 7 of the Police, Factories, &c.; Act, 1916, and of Section 20 of the Mining Industry Act, 1920, respectively. The Memorandum on p. 181 describes in general terms the steps taken by the Home Office under the Act of 1916, which enables the Secretary of State to make "Welfare Orders" with regard to such matters as arrangements for meals, drinking water, protective clothing, ambulance, seats in workrooms, washing, rest rooms, &c. Some of the Orders made have a general application (e.g. drinking water), but more usually the Orders apply to special trades. Before an Order is made, the draft is published and an opportunity of objection is given. Altogether fifteen Welfare Orders have been made, and the results are said to be generally satisfactory. The full list is given on p. 194. The provisions of a Welfare Order are enforced in the same manner as those of the Factory and Workshop Acts. Besides the compulsory Orders made under the Act of 1916, the Home Office has endeavoured to encourage other forms of welfare work by the issue of explanatory pamphlets, &c. A list of the pamphlets already issued is given on p. 195.

The coal mining industry stands at present in a unique position as regards welfare work, inasmuch as a fund derived from a compulsory levy of one penny per ton of output is available under the Act of 1920 for "purposes connected with the social well-being, recreation and conditions of living of workers in or about coal mines, and with mining education and research." The fund is administered by a Committee appointed by the Board of Trade, which is bound to assign for the benefit of each district four-fifths of the contributions received from that district, and to consult the District Committee, representing Owners, Managers and Coal Miners, in respect of any local allocation. The Memorandum on p. 196 shows that up to the end of June, 1925, local allocations had been made to the amount of £2,800,000, of which roughly two-thirds was devoted to recreation, and one-third to health. The remaining one-fifth of the fund is

to be devoted in about equal proportions to health and safety research, and mining education. The period of five years for which the levy was authorised is about to expire, but in view of the widespread desire on both sides to extend it for a further term, an Act for that purpose was passed into law in December, 1925.

(3) *Joint Industrial Councils, etc.*—The origin and functions of Joint Industrial Councils established in pursuance of the recommendations made by the "Whitley" Committee in 1918 are described in the Memorandum on p. 294, and are referred to in a later section of this Introduction (see p. 44). It will be noted that welfare work formed an essential part of the programme of many of these Councils; and in fact several Councils, notably that in the Pottery trade, have undertaken inquiries, and made important recommendations, with regard to such matters as arrangements for the preparation and taking of meals, the supply of protective clothing to workpeople at cost price, ambulance and first-aid arrangements, and the provision of seats in workshops for women and young persons where desired. Such joint action, though powerfully stimulated by the war, began at an earlier date; thus the Memorandum on p. 185 shows that a number of pre-war agreements resulting from conferences between factory inspectors, employers and workpeople dealt incidentally with such matters as temperature, ventilation, sanitary conditions and other questions of welfare. Examples are also quoted of recent cases in which associations of employers and employees have co-operated successfully in framing the "dangerous trades regulations" referred to on p. 183.

(4) *Voluntary Action by Employers.*—The Memorandum on p. 189 describes the development which has taken place since the war in the direction of systematic action by employers, often in concert with representative committees of employees, to promote various forms of industrial welfare work in connection with their establishments through such means as the appointment of special staff officers to supervise and foster these activities. Some of the matters included in the programme of "Welfare Work" there described have of course long been provided for in many well-managed industrial establishments, but the present movement for organised welfare work received a strong impulse from the establishment of a Welfare Department of the Ministry of Munitions in 1916. After the war the Industrial Welfare Society was formed to promote welfare work on a voluntary basis. Provision of canteens, facilities for sports and recreation, care of the sick, better selection of employees, &c., are among the many diverse matters falling within the purview of the Society, which includes about 700 member firms employing over two million persons. In a good many of the firms, welfare work is regarded as an integral part of managerial policy, while in others, perhaps the majority, it is dealt with as a separate branch of administration. But, whatever be the precise form of organisation, it is clear that the success or failure of voluntary welfare

work depends essentially on the attitude of employer and employed and the strength of their desire to co-operate for these purposes. It is obviously impossible to obtain any quantitative measure of the effect of organised welfare work on output, but the Memorandum indicates that it is not only an important factor in improving the amenities of workshop life, but that in many cases it has had a substantial influence in improving industrial relations, and in increasing continuity of personnel and productive efficiency.

#### *Welfare Arrangements in Other Countries.*

On p. 197 will be found a Memorandum on industrial welfare in certain other countries, compiled from reports furnished to the Department of Overseas Trade. The information contained in these reports does not enable a comparison to be made between the total provision for industrial welfare by all agencies, public and private, in the various countries, since the inquiries made were expressly limited to voluntary welfare schemes, and thus excluded all compulsory and other statutory forms of welfare activity which of course vary very greatly in their scope and effectiveness. In view of this restriction, which was necessary in order to confine the inquiry within manageable limits, the information contained in the Memorandum is mainly of interest as indicating the manifold forms which welfare activity has recently taken and the increasing attention which it is receiving in the principal industrial countries. Perhaps the most important tendency disclosed by the reports is the trend of the best opinion and practice, especially in America, towards regarding provision for welfare as an essential part of good business organisation rather than as a philanthropic adjunct having little or no organic connection with the main structure of industrial enterprise. The Italian Decree of May, 1925, establishing a national organisation for welfare under the Ministry of National Economy will be noted with interest, but it has hardly been in operation long enough to enable a final judgment to be formed as to its practical effects. Attention may also be called to the observations in the Memorandum on the attitude of organised labour in different countries towards welfare schemes based on individual works.

#### UNEMPLOYMENT.

We have now reviewed briefly the present position and recent tendencies as regards rates of wages, cost of living, hours of labour and conditions of work, i.e., the most important of the factors which, by their combination, determine the material well-being of the working population, so far as it is fully employed. It is evident, however, that the actual and potential well-being of the individual worker depends not only on the above factors, but also on the extent to which he can obtain full employment or is compelled to

“lose time” through causes beyond his own control. When speaking of hours of labour, we alluded generally to the factor of loss of time from such causes as sickness, disputes, short time and under-employment, leaving over for later consideration the general question of unemployment. The last-mentioned element now requires detailed examination, since the abnormal level and long persistence of unemployment during the past five years has been and still is the dominating factor in the industrial situation.

In the present survey we are concerned rather with estimating the volume, incidence and industrial effects of unemployment than with analysing its ultimate causes or describing the various steps taken or suggested for alleviating the evils to which it gives rise. From the point of view of our present inquiry, the shortage of employment which manifests itself in the presence of a large margin of unemployed persons is but the expression, in terms of industrial conditions and relations, of the shortage of production and trade which it is the main object of our whole inquiry to investigate. Certain important factors which have already been examined in the course of our previous survey,\* e.g., the deficiency in the world’s purchasing power, the growth of local manufacture abroad, and the competitive power of other exporting countries, are inevitably reflected in corresponding deficiencies in the volume of employment for labour in Great Britain. Other deep-seated causes of fluctuations in employment, e.g., those connected with world-wide cyclical movements of credit, prices and production, cannot be satisfactorily analysed in a volume based on existing official data. There is, however, a large amount of official statistical material available which throws very valuable light on the volume and incidence of unemployment in recent years, and enables some rough comparison to be made with the corresponding situation in previous periods of trade depression. This material we proceed to analyse, but before doing so there are certain points to which we wish to draw attention.

The industrial effects of unemployment are manifold and only some of them are capable of statistical measurement. If the percentage of unemployed were fairly constant, and if the time lost through this cause were spread fairly evenly over the entire working population, it would constitute a measurable deduction from earnings without any other far-reaching social effects. In point of fact, however, the volume of unemployment not only varies very widely according to the general state of trade, but at any given time its burden is usually much heavier in some industries than in others. Moreover, the burden of unemployment tends to be concentrated with special weight on certain sections of workers, e.g., those with less than average competence or those who have passed

\* “Survey of Overseas Markets.” Published by H.M. Stationery Office, July, 1925.

the age of greatest earning capacity. Hence the loss of time represented by unemployment is very far from being evenly distributed, and this inequality is only partially corrected by such methods as unemployment insurance, whereby employees out of work receive support from a fund to which employers and employed as well as the State make contributions. The result is that the economic loss due to unemployment is by no means confined to the mere value of the time lost, great as this loss may be. There are additional factors, which, though not statistically calculable, are of great importance, especially in estimating the effects of the prolonged idleness of many hundreds of thousands of workpeople: for example, the loss of skill on the part of highly skilled workers, the deterioration of morale, and possibly even of the will to work, on the part of a section of the industrial population, and the inability of industry to absorb, especially into skilled employment, young persons reaching employable age. If these matters are not treated at length in this survey, it is not because they have been overlooked but because there are no official data enabling their cumulative effect to be estimated.

For the same reason we do not attempt in this volume to deal with the large problem of the mobility of labour, and the effects thereon of recent developments of industrial and social organisation, though it is apparent that unemployment must be materially intensified and prolonged by any cause which impairs the power or will of labour to redistribute itself geographically or industrially in accordance with changes of demand.

#### *Unemployment Statistics.*

Turning to the available official figures, we call attention in the first place to the Memorandum on p. 164 which shows the average of the "Live Registers" of the Employment Exchanges in Great Britain for each of the years 1921 to 1924. From this it can be seen that, even in the best of the years in question—1924—58 million man-weeks of potential work were lost owing to unemployment alone, while in the worst year—1921—the figure was as high as 93 million man-weeks, the average for the four years being 74 million man-weeks. If we confine our attention to the persons insured against unemployment (see Table B on p. 225), we find a very similar relation indicated between 1921 and 1924, the average proportion of time lost through recorded unemployment in the former year being 16 per cent. as against 10 per cent. in the latter. While the figures given in the Memorandum as to time lost through sickness, unemployment and trade disputes respectively, are not directly comparable, an inspection of the figures indicates that, in each of the last three years, the time lost through sickness was very much



less than that lost through unemployment, while the time lost through the latter cause was many times greater than that lost by persons engaged in trade disputes.

In endeavouring to compare the state of unemployment existing since 1921 with that of the pre-war period, we are at once confronted with the lack of really adequate figures. The extension in 1920 of the Unemployment Insurance Act to cover practically all manual workers outside agriculture has led to the possibility of preparing statistics of unemployment covering a very large proportion of the working population ; but, unfortunately for our present purpose, no such figures exist in regard to the period prior to 1920. We are therefore driven to fall back upon the percentages unemployed among the members of those trade unions which furnish returns to the Ministry of Labour. A Memorandum on the subject, embodying the figures, appears on p. 218.

The basis of these figures is too narrow to permit them to be regarded as furnishing an absolute measure of the level of unemployment. There are, however, reasons for believing that the figures at least provide a basis on which to form a fairly good estimate of the fluctuations of employment in the pre-war period. First, regarding the figures in the light of common knowledge, we find that in the trade depression of the middle eighties the mean annual percentages rose from 2.6 in 1883 to over 10 in 1886, while the depression in the early nineties is reflected in the steady rise of the figure from 2.1 in 1890 to 7.5 in 1893. Again, the trade depression of 1908-09 can be traced in the rise of the percentage in these years to over 7, while war-time conditions caused the figure to fall below 1 per cent. Secondly, if we test the figure by comparison with the percentage of insured workpeople unemployed for the four years, 1921-24, for which that percentage is available, we find a surprisingly close agreement, the average figures for the whole period being 13.1 according to the insurance statistics, and 12.3 according to the trade union returns.\*

The average of the " Live Register " of the Employment Exchanges during the period 1921-24 was about 1,400,000, which suggests that a million on the Live Register would correspond very roughly to a trade union unemployed percentage of about 8. Now, even if allowance be made for all the uncertainties due to the nature of the statistics, it is significant to note that, in the period 1900-14, the annual mean of the trade union figures only rose as high as 7 per cent. during two years out of the fifteen, viz., 1908 and 1909 (though

\* The correspondence between the two sets of figures appears less close if single years be taken separately. Thus, the trade union figure for 1922 was 15.2 and for 1924, 8.1, whereas the insurance figures for these two years are 13.7 and 10.3 respectively. Part of this divergence may possibly be connected with the large decrease of trade union membership, as many of those whose membership lapsed, and who were consequently excluded from the later returns, may have been those who were unemployed.

the figure rose higher in individual months in those two years), and that the annual mean was never as high as 8 per cent. between 1886 and 1920. These figures suggest that, before the war, the country seldom, if ever, had to carry a load of 1,000,000 unemployed persons. Further, in pre-war times, spells of severe unemployment did not continue for periods comparable in length to the present depression, which has already lasted for five years. Throughout the years 1921 to 1924, the trade union annual mean rate remained above 8 per cent. and averaged over 12 per cent., and the returns for the first half of 1925 give no indication of a heavy fall, whereas the trade depression of 1908-09 sent up the figure for these two years to 7·8 per cent., after which there followed an immediate fall. A similar experience is suggested by the figures for 1892 to 1895.

Taken as a whole, employment shows a definite seasonal variation, being slightly greater in summer than in winter, though in the case of certain classes of labour this tendency is reversed. The statistical evidence for the seasonal movement is best derived from the records of trade unions over a series of years, since the period for which unemployment insurance figures are available is too short and too much affected by disturbing causes to afford a satisfactory basis for such a calculation. The table on p. 219 gives the mean percentage of trade union members returned as unemployed for each month taken over the 20-year period, 1894-1913. This mean percentage falls steadily from 4·8 in January to 3·8 in May, and rises again from 3·9 in June to 4·7 in December.

#### *Unemployment in Different Groups of Industries.*

Turning to another aspect of the problem, viz., the comparative level and fluctuations of unemployment in different groups of industries, we call attention to the Memorandum on "The Extent of Unemployment, 1921-25," which is given on p. 220. Table D in that Memorandum (p. 227) enables a comparison to be made between unemployment in each of the industries forming the group which the Committee have selected for special examination\* and that prevailing in industry generally. Another table on pp. 444-61 shows in detail the percentages of insured persons unemployed at different dates in each of a hundred groups of trades. From the former table we find that, on an average, unemployment has been higher in the group of exporting trades selected for special examination than in industry in general. Thus, in the last period of 12 months covered by the table, viz., from the middle of 1924 to the middle of 1925, the average for all insured trades was 10·7, whereas in the exporting group in question it was 12·7. The only marked exceptions to this rule were the electrical manufacturing industries,

\* See Note 3, p. 54.

where the percentage averaged only 7·3, and the motor and cycle trades where it averaged 7·6. Clothing and chemicals were also slightly below the average (9 and 8·9 per cent. respectively). The cotton and the woollen and worsted trades showed great fluctuations of unemployment, but the mean over the period conformed closely to the general average. In all the other industries in the exporting group, unemployment was materially above the general level, and in some cases the excess was very marked. Thus, the rate for shipbuilding was over 31 per cent., or nearly three times the general average, while in iron and steel manufacture it was about twice the general average. Coal mining showed a very wide fluctuation, from 4·7 per cent. in June, 1924, to 25 per cent. in June, 1925. In engineering (other than electrical engineering), the percentage averaged about 15.

In order to obtain a further insight into the distribution of unemployment among different trades, reference should be made to the second table referred to above, which shows the figures separately for 100 groups. A careful examination of this detailed table discloses that (apart from coal mining, the position of which is quite exceptional) the main groups of industries which have lately been most severely depressed are those connected with or dependent on shipping or iron and steel. The high rate of unemployment in shipbuilding has already been noticed. The table also shows that during the same period the average percentage of unemployment in shipping services was about 20, and in dock and harbour services (which mainly depend on shipping) no less than 28. It is impossible not to connect these very high percentages with the abnormal expansion of the industries concerned with the production of munitions and shipping during the war. It is plain that the readjustment of the personnel and plant of some of these industries to peace requirements is still incomplete.

On the other hand, most trades connected with house construction (building trades, stone and slate quarrying, cement, brick and tiles and paint manufacture) showed rates of unemployment well below the average, and the same is true of the printing and paper trades, public utility services (gas, water and electricity supply, railway, tram and omnibus services, &c.), and the distributive trades, drink industries, laundries, &c.

A close inspection of these tables suggests a caution against hasty generalisations based solely on the averages. For example, during the year 1924-5 the average percentages of unemployment in tinplate-making and in glass-bottle manufacture were about the same, viz., 20 per cent. But, while the figure for glass-bottle making never fell far below, or rose far above, the average, that for tinplate fluctuated between 2·7 and 45. Plainly the causes in the latter case were connected with violent but temporary market movements, whereas the continuous high level of unemployment in the glass-bottle trade is known to be connected with the gradual encroachment

of automatic machinery on hand labour. Again, the very high figure for dock and harbour labour must be read in connection with the observations on p. 23 as to the peculiar conditions leading to chronic under-employment in that industry. It would be easy to multiply examples.

Nevertheless, after making all allowance for special circumstances (including the still imperfect liquidation of war conditions in shipbuilding and certain munition trades) we cannot fail to be struck with the comparatively high proportions of unemployed in the trades which either manufacture for export or which are directly dependent on exports for their prosperity, and also the comparatively low percentages shown by those industries and services which are least exposed to direct foreign competition.

It must be remembered, however, that these figures relate to a comparatively short period of severe trade depression, and it is unlikely that the same results would be exhibited if the figures were available for a long period. On the contrary, it is to be expected that in times of good trade the great exporting industries will show a comparatively low percentage of unemployment, and that the trades concerned with the instruments of production will become exceptionally active. The evidence of the available figures, so far as they go, supports this supposition.

#### *Detailed Analysis of Unemployed.*

We may now turn to a further aspect of the unemployed problem, viz., the type of individual who has formed the "unemployed" during the last four years. The best material which has been made available for this purpose is the Report published by the Ministry of Labour of an "Investigation into the Personal Circumstances and Industrial History of 10,903 Claimants to Unemployment Benefit—24th to 29th November, 1924." On p. 230 will be found a memorandum summarising this report, together with tables showing the main results. We may draw special attention to the following interesting points:—

(a) In the opinion of the interviewing officers, 62·7 per cent. of the males and 77·2 per cent. of the females were persons who in normal times would usually be in steady employment; while only 3·6 per cent. of the males and 1·4 per cent. of the females were regarded as "verging on the unemployable."

(b) Of the small percentage placed in the category of "verging on the unemployable" by the interviewing officers, two-thirds of the men and two-fifths of the women were over 60 years of age.

(c) The analysis shows that 4·7 per cent. of the claimants who had entered into insurance prior to July, 1922, had had no insurable employment since that date. Of these, one-fifth were placed as "verging on the unemployable."

(d) As to ages, 21·3 per cent. of the men were over 55 years of age. The next heaviest proportion (15·6 per cent.) occurred in the age group 20-24, a fact which may perhaps be explained by the difficulty experienced by persons trying to find employment as adult workers for the first time during the depression.

(e) 51·7 per cent. of the males are described as having had no apprenticeship or training.

(f) Only ·27 per cent. of the men and ·29 per cent. of the women were not of British nationality.

In considering the above results, we must again remember the nature and intensity of the present trade depression. Had a corresponding analysis been made during a period of active trade, when every able-bodied and willing worker was fairly sure of employment, the composition of the margin of unemployed persons would doubtless have appeared very different, both as regards age distribution and the percentage "verging on the unemployable."

*Increase of Unemployment compared with that of Employable Population.*

It is of some interest to compare the recent growth of unemployment in Great Britain with the simultaneous increase in the employable population. The average number of unemployed in 1924, as shown by the registers of the Employment Exchanges, was about 1,100,000. As has already been explained, a corresponding figure relating to 1913, the last completed year before the war, is not available; but on the basis of the trade union percentage, the figure may be roughly estimated at something like 300,000, which suggests that the number of unemployed increased in the interval by about 800,000. There are no direct means of calculating the "employee" population just before the war, but on the assumption that its ratio to the total population has remained constant,\* we find that between 1913 and 1924 the "employee" population increased by nearly 900,000. Both estimates are very rough, but they suggest that the total number of persons in employment in Great Britain is fully as great as just before the war, the increased margin of unemployed being at least balanced by the increase of the "employee" population. Owing, however, to the effects of the war on the age-distribution of the population, practically the whole increase in the number of men employees is found in the older age groups, i.e., among those whose average productive capacity must be below the maximum. As has already been observed, a change of this magnitude in the age composition of the employed population cannot have been without its effect on productive costs and hence on unemployment.

\* The Census returns for 1911 and 1921 show that the "occupied" population bore approximately the same ratio to total population in these two years.

*Unemployment in other Countries.*

We should have been glad, if possible, to complete our survey by some comparative statistics showing the relative intensity of unemployment in the chief competing countries, but this is quite impossible on the basis of the available official data in view of the wide differences between the methods of statistics of unemployment published in different countries. These difficulties are fully brought out in two recent publications of the International Labour Office,\* and will be clearly appreciated by anyone who peruses the summary of information on unemployment which appears each month in the Ministry of Labour Gazette. The difficulties surrounding international comparisons of this kind are very great, and we are glad that they are being exhaustively considered as the result of conferences of statisticians which met at Geneva in the autumn of 1924 and the spring of 1925.

We have, nevertheless, thought it desirable to summarise in the Memorandum which is printed on p. 242 some of the available data with regard to Germany, the United States and France, which, though they do not enable any exact international comparisons to be made, serve at least to indicate how far recent movements of employment within these countries have shown similar or different features. The only one of these countries for which pre-war statistics exist enabling the course of employment to be studied alongside that of Great Britain is Germany, and even here the comparison is beset with difficulties arising from differences in the basis of the figures. Broadly speaking, however, the statistics suggest that in the period immediately preceding the war the percentage of industrial workers totally unemployed in Germany was probably lower and the range of its variation narrower than in Great Britain. How far any such difference may have been connected with the different degrees of industrialisation of the two countries or of their dependence on export trade, or with differences in their rates of industrial expansion, or in the labour policy pursued in times of depression by employers and workmen and their organisations, are matters on which the statistics do not of themselves enable definite conclusions to be reached. Clearly, however, these and other factors have to be weighed in drawing inferences from the figures. As regards the post-war period it will be seen that, of the three countries selected, the only one in which the course of employment has shown any resemblance to that in Great Britain is the United States of America. In that country the collapse of employment in 1920-21 began somewhat earlier and for a time was even sharper than in this country, but the recovery was much more rapid. In the other two countries referred to in the Memorandum, i.e., Germany and France, the course of employment since the war has been greatly influenced

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\* "Methods of Statistics of Unemployment." (Studies and Reports, Series N, No. 7). "Unemployment, 1920-23." (ditto, Series C, No. 8.)

by special and local conditions, such as the rapid movements of exchange, the occupation of the Ruhr, and the reconstruction of the devastated areas, which invalidate conclusions based on comparisons with this and other countries.

#### OTHER FACTORS AFFECTING CONTINUITY OF WORK.

Besides involuntary unemployment, which has been dealt with in the preceding section, there are several other factors by which continuity of work and productivity of industry may be prejudicially affected.

*Sickness.*—One of these factors, viz., loss of time through sickness, only needs a passing reference, inasmuch as its incidence, though of course dependent on the general state of health of the people, and also varying with the nature of the particular industrial process, is at any given period and in any given industry relatively stable. The general statistics of time lost through sickness do not (except in the case of widespread epidemics) show anything like the violent fluctuations which characterise the figures of unemployment. Hence, the deduction from industrial production and remuneration attributable to sickness is, comparatively speaking, a constant and predictable percentage, and sickness in normal times does not therefore give rise to any of the more acute problems of discontinuity which result from such causes as unemployment and trade disputes. In saying this, we do not, of course, fail to realize the great benefit to production which may result from the progressive lightening of the burden of sickness by the improvement of the national health. At present, as the statistical tables on p. 165 make clear, the time lost through sickness is equivalent to about 3 per cent. of full employment.

*Disputes.*—The next important factor in discontinuity of work is that of stoppages of production through strikes or lock-outs. Here the average annual volume of lost time caused directly by stoppages is comparatively insignificant, and perhaps not more than  $\frac{1}{4}$  per cent. of the total working time. But the burden thrown by trade disputes on industry cannot, as in the case of sickness, be measured by the mere percentage reduction in time worked which, on an average of years, is attributable to strikes and lock-outs. More than any other source of discontinuity, trade disputes vary in intensity, area and duration from year to year and from trade to trade. As they are due to a great variety of causes (including what is collectively known as "industrial unrest"), the operation of each of which is liable to great fluctuations, the time annually lost through strikes and lock-outs varies within very wide limits, and according to no ascertainable law of fluctuation. From the Memorandum on p. 334 it will be seen that, in the past 25 years, the aggregate number of days lost yearly through disputes has varied

from 1½ millions in 1904 to nearly 86 millions in 1921. Variations of this order of magnitude, and, in general, the great difficulty of foreseeing and guarding against stoppages which may directly or indirectly operate to paralyse whole branches of commerce and industry, make the burden of anxiety and uncertainty caused to industry by actual and apprehended disputes much heavier than is represented by the volume of time lost by the persons directly affected by the stoppages. That this fact is fully recognised by those concerned is shown by the elaborate provision made in most trades for avoiding or settling disputes, which is referred to in a later section of this introduction (see p. 46).

*Demarcation.*—Another source of discontinuity of work which affects adversely the economy of production is a direct result of the growing differentiation and subdivision of productive processes which has been the outstanding feature of industrial development during the past century. The subdivision of operations, with the concurrent specialisation of skill and technique, has led to an ever-increasing sharpness of differentiation between different bodies of skilled workmen, whose scope has been more and more closely restricted to a definite and limited range of operations. There have, of course, been important counter-tendencies and exceptions to this rule, but broadly speaking, it expresses the dominant tendency; and (what is of special importance for our purpose), the lines of industrial organisation have tended to conform more or less to the lines of subdivision marked out by the growth of specialisation of industry. The inevitable results have been the emergence in certain important industries of "demarcation" problems (viz., questions as to the exact boundary lines dividing the work which is ordinarily performed by two bodies of craftsmen), and the interruption of production from time to time owing to disputes between rival bodies of workmen as regards their "right" to exercise a particular branch of trade. We are not here concerned primarily with the causes or the merits of these questions, but rather with their results on continuity of work. It is obvious that the increasing rigidity of the limits within which a particular group of craftsmen can be employed necessarily implies some diminution of flexibility and fluidity of labour power, and may sensibly impair not only the power of economic adaptation to changes of conditions, but also the continuity of productive operations in normal times. We have no official data enabling us to measure statistically the relative importance of this element compared with others in increasing the cost of production and diminishing the competitive power of British industry. Clearly, it is much more important in certain groups of industries than in others, and most of all in trades like many branches of the metal, engineering, shipbuilding and building trades, which have been particularly subject to the tendency to specialisation alluded to above.



## MACHINERY FOR INDUSTRIAL NEGOTIATION.

*Collective Bargaining.*

In the principal industries, working conditions in the widest sense—including actual wage rates and their basis (whether time or piece), hours of labour, and the terms of employment generally—are normally settled and adjusted by some form of direct discussion, negotiation or bargaining between the parties concerned. The State has, through factory and other codes of social legislation, laid down certain limits to the subject matter of this discussion, applying to such matters as safety; method of payment, and conditions of work and workplaces; workmen's compensation in the case of accident; health and unemployment insurance; and, in the case of certain classes of employees, hours of labour. The State has also provided an extensive machinery for the facilitation of such discussion, and the adjustment, on a voluntary basis, of differences as they arise in its course. Broadly, however, it is true to say that working conditions are settled by the parties concerned. The contract resulting from their bargaining tends, more and more, to be collective in character and of uniform application co-terminous with great industrial groups. While in many cases (e.g., mines, building, engineering, dock labour, gas) local variations are allowed for, the developments described in Chapter V of this volume show a steady effort to secure that the contract shall, in fact, be binding and uniform over the widest possible range of persons in a common employment.

In the process of discussion and negotiation, a predominant part is played by representative associations of employers and of workpeople. Statistical particulars as to the associations, formal and informal, of employers are not available, though it is a matter of common knowledge that the growth of such associations has gone on very rapidly in recent years, and notably since the war. The legal status of trade unions was defined by the Trade Disputes Act of 1906 and the Trade Union Act of 1913, which followed on the Taff Vale and Osborne judgments. Tables on pp. 283-6 show the extent to which workpeople, male and female, in the different industries, are organised in unions. They also show the movement of total membership over a series of years. During the decade immediately preceding the war, trade union membership rather more than doubled. Though individual years show upward and downward fluctuations, the total rose from 2 millions in 1904 to over 4 millions in 1913. During and immediately after the war, the increase was still more rapid, the membership more than doubling between 1914 and 1920—the "peak" year—when the total reached 8½ millions. Since then there has been a considerable decline, the total for 1924 being only 5½ millions, or roughly half the number of persons who come under the scope of the Unemployment Insurance Acts. The proportion of men is higher, since women, outside the textile trades, still remain comparatively unorganised.

In the exporting group of industries which the Committee have selected for special examination, it would be generally true to say that working conditions are for the most part governed by collective bargaining; that the workers are organised in trade unions (on an industrial or craft basis, or, sometimes, on both), and the employers in associations; and that, as between these unions on the one hand and associations on the other, there has been built up a more or less stable and definite machinery for discussion which, in many cases, includes elaborate local and national arrangements for conciliation, and, often, for arbitration in the last resort. It is desirable to stress the foregoing point, for two reasons. The first is that a considerable space will be devoted below to an account of a comparatively new form of organisation, viz., Joint Industrial Councils; and though this special type of organisation has, for our purposes, the importance of being the most significant new element in the machinery of negotiation added since the war, it is possible to overrate its relative significance in the whole complex of varying and, at times, very loose, arrangements to that end, just because it lends itself more readily to schematic description. The second reason is that, while the majority of representative associations, both of employers and of employed, aim at representing fully a group of persons engaged in some aspect of production or distribution, and claim, therefore, to speak for an industry, the word "industry" is itself by no means precise or self-explanatory. It is, on the contrary, the focus of acute controversy within the trade union world, and a prolific source of difficulty, and even, at times, of dispute. As has already been mentioned (see p. 40), a considerable class of disputes arises out of the effort to give content to the notion either of an industry or of a craft. Some indication of this is afforded in the tables on p. 338 classifying the disputes that actually took place in 1910-24.

The system of regulating working conditions by collective bargaining was accepted as normal throughout industry by the latest Committee, prior to our own, to investigate industrial relations—the committee on relations between employers and employed, generally known as the "Whitley" Committee. In its first report (1917), that committee stated its "considered opinion that an essential condition of securing a permanent improvement in the relations of employers and employed is that there should be adequate organisation on the part of both." Collective bargaining is a normal method not only of fixing but also of changing working conditions. The development described in Chapter V (pp. 254-306) of the somewhat complicated network of arrangements for regulating these conditions represents an effort, more or less conscious, towards such forms of organisation and such corresponding machinery as may allow growth and change to proceed without interruption of production. Thus, the years before the war witnessed, side by side with the growth of representative associations for direct bargaining and discussion, a

building up of conciliation or arbitration machinery for avoiding disputes or settling them if they arose. In the last quarter of the nineteenth century, voluntary conciliation Boards existed in the major industries, variously constituted, and of varying effectiveness. In the iron and steel, cotton, and boot and shoe trades, for example, there was a comparatively highly developed organisation on these lines.

*Machinery for Conciliation and Arbitration.*

A Royal Commission appointed in 1891 drew attention to the existence and spread of the voluntary conciliation Boards mentioned above, and suggested that Government Departments, by advice and assistance, might promote their universal establishment.\* As a result, the Conciliation Act of 1896, on a purely voluntary basis, gave to the Board of Trade statutory authority (since transferred to the Ministry of Labour) to intervene in a dispute; and in 1908, standing panels of independent persons were constituted from which Courts of Arbitration might be constituted by the Board. The great series of disputes in 1911 and 1912 were mainly in industries where trade unions were weak and had not won recognition. The magnitude of the industrial disturbances of 1911 led to an attempt to strengthen the machinery of conciliation by the establishment of the Industrial Council†—a joint body, composed of representatives of employers and workpeople selected by the Board of Trade. The Council was designed, in the words of the Board of Trade Memorandum issued at the time, "not to interfere with but rather to encourage and foster such voluntary methods of agreements as are now in force or are likely to be adopted for the prevention of stoppage of work or for the settlement of disputes."

The war made a complete break in normal development. The Munitions Acts set up special compulsory arbitration machinery, and this and the suspension of trade union practices, the prohibition of strikes or lock-outs on munition work, and the establishment of government control over supply services, put the ordinary machinery for bargaining out of action, and, over a wide area, established governmental regulation of wages, hours and conditions. Another development was the tendency to relate wage movements to a "cost of living sliding scale"—a basis still in force in many industries (see pp. 109-10). This cost of living scale is, indeed, one of the principal legacies, in this connection, of the war period, and has introduced a new factor into industrial bargaining.

The pledges given during the war that trade union practices would be restored were fulfilled by the Restoration of Pre-War Practices Act of 1919, and the apparatus of control was broken up. Already in 1917 (i.e. before the close of the war) the "Whitley"

\* See Fifth Report of the Royal Commission on Labour (C. 7421), 1894, p. 100.

† Not to be confused with the "Joint Industrial Councils," subsequently established. (See p. 44.)

Committee, already mentioned, had recommended the establishment, in each industry, of "an organisation representative of employers and workpeople to have as its object the regular consideration of matters affecting the progress and well-being of the trade from the point of view of all those engaged in it, so far as this is consistent with the general interest of the community." The Committee urged the setting up, in organised trades, of Joint Industrial Councils, and, in less organised trades, the establishment or continuance of Trade Boards.

Before dealing with these two aspects of their work, it will be well to complete the picture of machinery by describing the extended provisions for conciliation and arbitration established in consonance with their Report. While expressing themselves as entirely opposed to any system of compulsory arbitration, and emphasising the advisability of a continuance of the existing system whereby industries made their own agreements and settled their differences themselves, the Committee made certain proposals for extended provision for arbitration and conciliation to which effect was given by the Industrial Courts Act of 1919. This Act allows a trade dispute to be reported by either party to the Minister of Labour who may take steps to settle the dispute by conciliation, and, failing settlement by agreement, may, by the consent of both parties, refer the matter in dispute either to the Industrial Court (a permanent Court of Arbitration), or to a single arbitrator, or to a Board of Arbitration constituted for the purpose. In cases where there are, in the industry concerned, arrangements for settlement or discussion between the parties, the above procedure only comes into effect after such arrangements have broken down. Since the Act was passed up to June, 1925, 1,096 cases have been referred to the Industrial Court. It is constituted from a standing panel, including in its membership, besides independent persons, persons who have practical experience or knowledge of industry, and who are acquainted with the respective standpoints of employers and workpeople.

Part II of the Act further gives the Minister of Labour power to inquire into a dispute whether apprehended or existing, and to refer relevant matters to a Court of Inquiry, whether the parties ask for it or not. Such inquiry by the Court is in no sense arbitral; it is designed to sift the facts in such a way as to elucidate the issue, not only in order that the dispute may be narrowed and clarified, but also to bring home the concern of the public, i.e. of the consumers. Since the Act was passed, 14 Courts of Inquiry have been held, seven of them in 1924.

#### *Joint Industrial Councils.*

At the time of the appointment of the Whitley Committee, there was a widespread belief that industrial relations had been permanently modified by war experience. The Committee, therefore, strove to

devise a comprehensive scheme of joint organisations designed (a) to improve relations and (b) to review them with a view to ameliorating conditions. They strove, that is to say, both to eliminate friction and to provide for change. To this end they recommended the establishment of a tripartite organisation of National and District Joint Industrial Councils and Works Committees.

The Joint Industrial Councils, composed by equal representation of employers and workpeople, presupposed effective organisation on both sides. Actually difficulty has been found, except in highly localised trades, arising mainly out of the fact that in many industries no sufficiently effective and comprehensive organisation existed. On the other hand, in various of the more highly organised trades, joint machinery, on lines analogous to but distinct from that projected, already existed and was maintained (see p. 265 et seq). Thus, while in the boot and shoe and some other trades a Joint Industrial Council was superimposed on the existing organisation, the iron and steel, engineering, coal mining, cotton, shipbuilding and other great industries preserved their existing arrangements.\* Nevertheless, by 1922 no less than 73 Joint Industrial Councils were working, as well as 33 "Interim Reconstruction Committees," i.e. joint bodies in industries where, owing to organisation being less effective or for other reasons, Joint Industrial Councils were not established. The Councils are constituted from an equal number of elected representatives of the associations of employers and workpeople. The essence of the Joint Industrial Council method is agreement and compromise, and the normal method of reaching decisions is by agreement between a majority of each side. The subjects discussed vary considerably, and in some cases, e.g. in the boot and shoe, pottery, and printing trades, the Councils do not normally deal with wages.

Since 1922, owing to a number of causes described in the Memorandum (p. 299), the number of Councils actually functioning has fallen. In June, 1925, there were in operation 43 Joint Industrial Councils and 7 Interim Reconstruction Committees. Particulars will be found on pp. 300-1. Mention may be made of the Councils in the wool textile, boot and shoe, pottery, Welsh plate and sheet, hosiery, printing, and heavy chemicals industries, in various public utility services (e.g. gas, electricity, tramways) and for dock labour, the mercantile marine, and the municipal and civil services. For the reason indicated above, several of the great exporting trades, e.g. cotton, coal, iron and steel, and engineering, do not figure in the list. Roughly speaking, it may be said that

\* The special arrangements made for the railways in pursuance of the Railways Act, 1921, and for the mercantile marine in 1919 (both on the "Whitley" principle) are dealt with on pp. 277 and 280. The special agreement governing the coal mining industry is described on p. 111.

Industrial Councils cover industries employing upwards of 3 million persons, or roughly about one quarter of the number of persons employed in industry who come under the Unemployment Insurance Acts.

The Councils have, undoubtedly, proved valuable agencies for maintaining good relations and preventing interruptions of production and also for promoting general welfare. If the movement has not in fact realised the brightest hopes of its promoters, the dislocations and disappointments of the post-war period must be remembered.

In the case of the District Committees and Works Committees, the recommendations of the Whitley Committee have borne less fruit. District Committees have been constituted in a few industries, e.g. electricity supply, and other "public utility" services, the wool (and allied) textile trades, and in one or two other groups; but in most cases the National Councils work without them. During the war, Shop Committees composed exclusively of the workpeople were widely established, notably in munition trades. The Whitley Committee advocated the establishment of Works Committees representative of both sides as part of their policy of giving to the workpeople "a greater opportunity of participating in discussions about and adjusting those parts of industry by which they are most concerned." While no official information has been collected since 1921, there has almost certainly been a decline in the number of Works Committees in existence in industry generally, though the engineering industry is an important exception, a joint agreement of 1919 having provided that Works Committees might be set up in each establishment. (See Memorandum, p. 302.)

#### *Negotiating Machinery in various Industries.*

The various forms of machinery adopted in a number of important industries for negotiation, conciliation and arbitration are described in detail in the Memorandum on p. 265. It will be seen from that description that the character, scope, and functions of this machinery present wide variations corresponding to the great variety of conditions and needs of the industries themselves. In many cases, the existing joint arrangements represent the results of a slow and long-continued evolution whereby the machinery has been closely adapted to the special requirements and circumstances of the respective trades. Generally speaking, the recent tendency has been to provide more and more for national settlements, or at least for settlements over a wide area. In nearly every case there is appeal from local to national bodies in any matter in dispute. Practice varies, however, as to the provision for obtaining a definite decision in the last resort; and there is very rarely any provision for the imposition of penalties for breach of an agreement or award.

In the *coal mining* industry, the machinery for negotiation and for dealing with disputes varies with the nature of the matter requiring settlement. The general practice is, however, that a dispute which cannot be settled locally can be referred by either side to the District Conciliation Board, but there is no provision for any local or district question which is not settled by the district joint body or its independent chairman being referred to any national body. The only disputes on which the two national bodies negotiate are questions affecting the industry as a whole. In the *iron and steel* trades, where organisation is highly developed on both sides, any local matter in dispute is, in the first instance, handled locally, i.e. in the works where it arises. If not settled there, it is referred to a neutral committee, chosen from an associated works. Failing settlement there, it may pass up to a district, or even to a national, conference. In the last resort it will be referred to arbitration. In the past five years, some 60 disputes have been settled by this procedure. In *engineering*, as the result of an agreement arrived at in 1898 and since modified and extended in scope, disputes pass from works conferences to local conferences, or, finally, to a Central Conference of the whole industry. The arrangements for consultation between employers and workpeople in this highly-organised industry are, in some respects, exceptionally thorough, though it should perhaps be noted that, as in shipbuilding, craft and demarcation questions are prolific causes of dispute. In *shipbuilding*, negotiating machinery is governed by an agreement of 1913, which provides a system of reference from local to district, and district to Central and Grand Conference. In *electricity supply* and *electrical contracting* there are Joint Industrial Councils with District Councils, and it is of interest to note that in the electricity supply industry the technical staff is represented on a special joint body. In the *cotton* trade, agreements exist providing that notices shall not be tendered by either side until the matter in dispute has been considered by local and central joint committees of employers' and operatives' associations. There are no arrangements for arbitration. In the *wool textile* trade, the rules of the National Joint Industrial Council provide for the establishment of an Arbitration Court if negotiation fails, and acceptance of its awards is obligatory. If the Court fails to reach a unanimous decision, the matter is referred to an Umpire, whose decision is final. These provisions, however, are intended to apply only to individual establishments. In the *clothing* trades, organisation is weak, but in the *boot and shoe* industry it has been notably strong for thirty years, with a highly developed conciliation and arbitration apparatus. An agreement entered into in 1895 provided for local Conciliation and Arbitration Boards, and the provisions made for the appointment of an Umpire were completed by the deposit of £1,000 by each side to provide monetary penalties for any infraction of agreements. Wages are at present dealt

with on the basis of a cost of living sliding-scale agreement reached in 1922 and reviewed from time to time by a conference between the parties, which failing agreement is presided over by an independent chairman. In the *heavy chemicals* industry there is a Joint Industrial Council which deals with wages and has on occasion applied to the Industrial Court, though there is no provision for arbitration in the constitution of the Council. Thus, in most of the above trades, the machinery in existence provides that, in the case of disputes which cannot be settled at the works concerned, there shall be an appeal through local or district to central or national Conferences, or in other words, a triple opportunity of settlement. Until all these opportunities have been exhausted no stoppage can take place; but it must be noted that one result of the machinery for securing extended discussion and a wider area for consultation is that, if a dispute does in the end take place, it is apt to be national in scope.

It is obvious that a system under which industrial relationships are governed by conference between two nationally representative bodies, to which there is a right of appeal even in the case of local differences, might, unless carefully safeguarded, tend to loss of flexibility and of adaptation to special and local conditions. There is, however, no reason to believe that the parties concerned are generally oblivious of this danger, and at least in certain trades there is a perceptible tendency in the direction of the settlement of purely local questions by local agreement.

Throughout British practice the voluntary principle is deeply rooted. Suspended during the war, it was promptly restored. Under the Industrial Courts Act, reference to arbitration can only take place by consent of the parties, nor can the Minister of Labour refer a matter to arbitration unless existing joint machinery has failed. Even then there is no statutory obligation to observe the awards. It is assumed, that is to say, that all that should be done is to provide machinery, as elastic and adaptable as possible, to facilitate discussion between the parties, reinforced by arrangements for their reconciliation by impartial outsiders, and, in the last resort, for the review of the question in dispute by a semi-judicial tribunal. It is assumed that there will be enough good sense and fair dealing in the parties concerned to take advantage of this machinery, and enough honour in them to maintain and support agreements or decisions thus reached.

In the main this system works well. There can be little doubt that the apparatus described above, inasmuch as it has secured a ventilation of grievances at an early stage, a fuller consultation, a freer expression of points of view, and, above all, a clearer grasp of facts by both parties, has reduced the area of dispute, and nipped many a quarrel in the bud. There are probably far fewer disputes to-day which arise out of mere misunderstanding. It is, of



course, impossible to make any statistical estimate of the disputes that were thus prevented, and the days that were thereby saved, to set against the figures on p. 335 of the number of disputes and the amount of time lost by them. It is no valid criticism of the machinery described above that in spite of it disputes do sometimes occur—and occur where the machinery is most elaborate. We have figures for the disputes that occur; none for those that are obviated. So long as there are two parties to any discussion whatsoever, the possibility remains that, on some point or other, an issue will arise about which agreement seems impossible and compromise inadmissible; and in a percentage of cases this situation will arrive. It is not completely guarded against by provisions for conciliation or even arbitration, since there may be issues which one side or the other will refuse to submit; which they prefer to test by the cruder method of the "trial of strength" or appeal to the tribunal of public opinion, represented in industry by a lock-out or a strike. Moreover, the table of disputes must be read with the fact in mind that a strike or lock-out is an expedient, which in the last resort may sometimes be the only practicable one, for securing a change.

#### *Legislation in Overseas Countries regarding Industrial Disputes.*

While the voluntary principle is, thus, the essence of British practice, it is not so in every country, as will be seen from the Memorandum (p. 341) on the legislation adopted in the various Dominions and in foreign countries for the adjustment and prevention of industrial disputes. The Memorandum divides the countries into two groups: those which have mainly followed voluntary practice and those which follow some measure of compulsory arbitration or conciliation of disputes. Thus, the Dominions, Germany, the United States, and some of the smaller European countries have enacted various kinds of legislation making arbitration or conciliation compulsory. In Norway, an experiment in general compulsory arbitration has been allowed to lapse, but disputes regarding collective agreements must still be referred to arbitration, and compulsory conciliation applies to other disputes. Belgium, France, Italy, the Netherlands and Spain, while adopting voluntary methods in industry generally, have experimented in anti-strike legislation so far as certain classes of workpeople (e.g., State or public utility employees) are concerned; and Austria, Denmark and Sweden rely, as does Great Britain, on "voluntary methods of conciliation and arbitration. ✓

The most instructive experience, for our purpose, is that of Australia, New Zealand, and Canada. The *Commonwealth of Australia* has an Industrial Conciliation and Arbitration Court, whose President has the duty of attempting to settle disputes extending beyond the limits of any one State, and the Court can be invoked by either of

the parties, or by the State authorities. The awards are compulsory ; there is no appeal ; and lock-outs or strikes against them are forbidden under monetary penalties. The Industrial Peace Act of 1920, though not nominally superseding this Court, has been widely held to do so in fact. It sets up a Conciliation Council, equally representative of both sides, District Councils, and special Tribunals. In each case the awards are legally enforceable. The Court, further, may consider matters "leading or likely to lead" to disputes. In *New South Wales*, compulsory arbitration was introduced in 1901 ; the Act of 1912 established a special Court of Industrial Arbitration which, in its turn, sets up Boards to fix wage rates and issue binding industrial awards. Public servants, and employees in industries covered by an award or agreement, are forbidden to strike under monetary penalties. In *Queensland*, the Industrial Arbitration Act (amended in 1923) established a Court and Boards which regulate conditions by awards and fix minimum rates. The industrial code of *South Australia* (1920) contains provisions for Wages Boards, the compulsory extension of agreements, the prohibition of strikes and lock-outs in wages board trades (whose conditions are strictly regulated), and an Industrial Court whose awards are binding. In *Western Australia* a system of compulsory arbitration obtains : strikes and lock-outs are forbidden under penalties. In *Victoria* and *Tasmania*, on the other hand, the system is one of conciliation, and the Wages Boards are more like the Trade Boards in this country.

In *New Zealand*, compulsion has been a standing feature of industrial legislation. The Court of Arbitration exercises a virtually continuous power of regulation in everything that belongs to the relations of employer and employed. Its awards and so-called conciliation settlements are enforceable by penalties ; and strikes and lock-outs in breach of awards or agreements are prohibited, again under severe penalties.

In *Canada* the most important piece of legislation for our purpose is the Industrial Disputes Investigation Act (usually known as the "Lemieux" Act) passed in 1907, and subsequently amended. This Act provided that either party to a dispute in the mining industry or public utility services might apply to the Minister for the appointment of a Board of Conciliation and Investigation, and it was the duty of the Minister to appoint a Board within fifteen days if he were satisfied that the provisions of the Act applied. The Act made it unlawful under penalty for a strike or lockout to take place prior to or during a reference of the dispute to a Board, but after the Board had reported, the parties were free to cause a stoppage of work. The provisions of the Act became applicable to disputes in other industries if both parties agreed to the dispute being referred to a Board. In that event, it was provided that any stoppage of work should cease forthwith.

We have described at some length the systems of arbitration and conciliation prevailing in certain British Dominions, because at least in the case of Australia and New Zealand they represent the most elaborate and significant experiments that have been made in recent years to substitute legally enforceable awards and orders for the ultimate sanction of strikes and lock-outs in matters of industrial bargaining. As regards the efficacy of the compulsory procedure, the statistics of Australian industrial disputes on p. 351 show clearly that it has not prevented strikes and lockouts, of which an average of 431 were recorded annually during the three last years for which figures are available. Moreover, of this large total, over five-sixths were settled without recourse to outside intervention, and of the relatively small number (67) of disputes settled by outside agencies, only 20 were dealt with under the Commonwealth or State Acts referred to above. It is a matter of common knowledge that some of the most competent and experienced observers in the Dominions are of opinion that the introduction of penalties is an illusory protection, as they fail to deter a strong aggressive and unreasonable organisation, while in other cases they are unnecessary. A broad distinction has to be drawn between the awards of temporary tribunals set up *ad hoc* to find a way out of some existing difficulty in a particular trade, and a permanent court which must attempt by its successive decisions to build up a coherent and equitable system in industries generally. The Australian and New Zealand legislation was originally directed to the latter object, and it is clear that the success or failure of experiments on these lines must in the long run depend on the ability or failure of the Courts to solve the fundamental problems that lie at the base of the nation's social and economic prosperity. The great difficulty of such a task will be apparent when it is remembered that the only instrument by which the Courts can operate is a series of orders or decrees, each of which is primarily concerned with the relations of employers and employed in some particular industry and dispute, whereas, in matters affecting the permanent economic welfare of the nation, regard must be had to many considerations besides the harmonising at a given moment of the interests of a particular set of employers and employed.

• The Canadian law is much less ambitious than the Australian, and does not go beyond the compulsory submission of disputes of certain classes or in certain circumstances to conciliation or investigation, with a provision for deferring a stoppage in the meantime. In the limited number of cases in which the Canadian Act has been invoked, it has generally operated successfully, but it is to be noted that its main success has been in conciliation. It has not prevented the occurrence of strikes and lock-outs.

In Germany the normal system is one of voluntary collective bargaining. The Conciliation and Arbitration Order of 1924, however, established State Conciliators, and it is significant that a

tendency has already appeared to make too great a call on the compulsory powers of the Conciliators. This danger—that where compulsion is present, conciliation in the true sense will be neglected—also emerges forcibly from Australian and New Zealand experiences.

#### *Trade Boards.*

British practice with regard to industrial bargaining has been described above as based on the voluntary principle. There is, however, one important exception to this statement. Joint discussion, as has been pointed out, proceeds within certain limiting conditions imposed by law, out of which it is not open to either party to contract. This limiting legislation has, in the main, been enacted in response to the sense that certain standards were demanded by the public conscience. Its extension, through the first Trade Boards Act of 1909, may be ascribed to the same force. A Select Committee in 1908 reported that "sweating" prevailed extensively both in home and factory work, and recommended the establishment of Wages Boards, on the model of those in Victoria, to fix minimum rates. Four trades were scheduled by the 1909 Act, and power was given to increase their number by provisional order. Trade Boards are constituted to represent both sides, together with the addition of a neutral element. Minimum rates of wages fixed by these Boards and confirmed by the Minister of Labour are legally applicable throughout the trade, and are enforced by inspection and other methods at the public expense—a practice which some Joint Industrial Councils would like to see extended to their voluntary agreements.\* Unlike the rates fixed by the Wages Boards in some of the States of Australia, the Trade Board rates are determined with consideration to "what the industry can bear," and are, consequently, not fixed on any general "living" basis, but trade by trade. The operation of the 1909 Act was limited to trades in which the rates of wages were exceptionally low. The amending Act of 1918, however, empowers the Minister of Labour to establish a Trade Board where, having regard to the rates of wages prevailing, he is of opinion that no adequate organisation for the effective regulation of wages exists. To-day, some one and a half million people are covered by 35 Trade Boards.

In 1921 a Committee of Inquiry into Trade Boards was set up under the chairmanship of Lord Cave. Its report (see pp. 289-90) recognised the need for the legal prevention of sweating and expressed the opinion that the Trade Boards Acts provided suitable machinery. The main suggestion of the Cave Committee was that new Boards should only be set up for trades in which wages are unduly low as compared with other employments, and then only after public inquiry. As a matter of fact, we understand that all the trades at present scheduled could have been included in the scope of the 1909 Act, on the ground of exceptionally low wages. No new Board has been set up since 1921. Fuller particulars as to the scope and administration of Trade Boards and their rates will be found on pp. 287-93 and 470-1.

\* See Memorandum, p. 314.

## CONCLUSION.

We do not think that any useful purpose would be served by attempting to summarise in a few words the main results arrived at in the preceding pages, and any such summary might easily be misleading and dangerous, not only by ignoring the qualifications, explanations and conditions to which the data are necessarily subject, but also by giving the erroneous impression that the present survey is the result of a complete and comprehensive inquiry into all the various aspects of industrial relations, instead of being limited, as it is in fact, to the presentation of the results obtained from an analysis of officially available data. In particular, the primary objects of this volume are descriptive throughout, and no systematic attempt has been made therein to trace and co-ordinate the underlying causes of the phenomena described, still less to formulate conclusions as to remedial measures.

For example, the sections on wages, hours and unemployment supply the means of measuring recent movements in the levels of money wages and cost of living, in the length of the working day, and the working time lost through unemployment. But they do not profess to define or measure the forces which combine to determine any one of these factors, or to indicate what action, if any, may be possible or desirable to increase the volume or to modify the distribution of material goods or employment. Again, the section dealing with industrial negotiation makes plain the existence of industrial unrest, which is reflected not only in the statistics of trade disputes, but also in the various forms of machinery designed to obviate or to settle differences arising from such unrest. But there is no attempt in the present volume to trace out and explain the complex social and economic causes which have led to unrest or to estimate the strength or direction of any tendencies which may be discernible towards a modification of industrial relationships.

In order to achieve these wider objects it will be necessary to take into account not only the material which is embodied in the present volume and summarised in the introduction, but also the whole mass of evidence laid before the Committee by representative bodies of employers and workpeople, together with the available data bearing on all the other phases of the problems which fall within our reference. Nevertheless, while fully realising the limitations of the present survey, the Committee believe that the impartial ascertainment and publication of authoritative data on certain essential aspects of industrial relations in Great Britain will not only be of value to a large number of persons who desire a trustworthy book of reference, but will also conduce towards the better understanding of present-day economic problems, both by limiting the field of controversy, and by facilitating and clarifying discussion.

*December, 1925.*

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## SURVEY OF INDUSTRIAL RELATIONS

## PRELIMINARY NOTES.

1. *Date.*—The latest date to which the information given in these Surveys has been brought down is, generally, June, 1925. Consequently any expressions such as "now" or "at present" relate to that date unless otherwise explained or implied in the context.

2. *Comparisons with pre-war conditions.*—The following note appeared in the "Survey of Overseas Markets" and is reproduced here as being applicable :—

"The comparisons of post-war with pre-war conditions which appear so frequently throughout the volume are not to be taken as necessarily implying that pre-war conditions are regarded as a standard to which it is probable or desirable that post-war conditions should approximate. Pre-war conditions are, however, generally recognised as a convenient datum line for comparisons, and it is from this point of view that they have been used in this volume."

3. *Selection of Industries.*—As a practical means of forwarding their enquiry, which under the terms of reference must have special regard to the export trade, the Committee began by selecting a limited number of groups of industries regarding which evidence and information should in the first instance be collected. These groups, which were chosen mainly on the basis of (a) numbers employed, and (b) importance from point of view of export, were as follows : Coal-mining, Iron and Steel, Engineering and Shipbuilding, Electrical Manufacturing, Cotton, Woollen and Worsted, Chemicals, and Clothing (including Boots and Shoes).

As the exports of the products of the above groups of industry amount in value to nearly four-fifths of the entire exports of manufactures from the United Kingdom, the industries may clearly be regarded as constituting in the aggregate the principal exporting industries of the country. Individually, also, some of these industries are great exporting trades in the sense that the bulk, or a very large proportion of their products, are exported. This is, however, not true of all ; and it is still less applicable to the whole of the numerous sub-groups into which the eight groups have necessarily been divided for the purpose of the statistical tables and memoranda in this volume.

The industries selected by the Committee, as described above, are sometimes referred to in the Introduction and in the Surveys by such phrases as "the exporting group of industries" or "the great exporting trades" and this note will explain the reason why particular branches of industry whose interest is not predominantly in the export trade may sometimes be included under such a description or heading.

It will be observed that the industries with which the Committee are dealing do not include agriculture ; and the memoranda and statistics included in this volume have been drawn up on that basis, although one or two references to agriculture will be found, e.g. in the memorandum and tables relating to population.

## CHAPTER I.

## POPULATION.

## CONTENTS.

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NOTE.—The detailed statistical tables relating to population are given in Chapter VI.

## POPULATION, AND ITS DISTRIBUTION BY AGE, SEX AND OCCUPATION.

[Based mainly on information supplied by the Registrar-General.]

In this volume we are reviewing material bearing primarily on the relations between employer and employed, but as the purpose of British trade is the maintenance of a reasonable standard of life for the nation as a whole, we have included some statistical information to enable a general view to be taken of the population whose existence has been, and is now, in great measure dependent on the successful solution of the problems under our consideration.

The Census of 1921 showed the occupations of the people of Great Britain in greater detail than had ever before been done. The particulars are given in Table 4, Chapter VI, and we have taken those results as the basis of our review, which for the purposes of this Chapter we have endeavoured to carry back to the year 1881. As explained below, the figures of the successive Censuses are not strictly comparable throughout, and in some cases it has been necessary to restrict our comparisons to England and Wales, though figures for Great Britain have been given wherever possible.

*Growth of Population.*

In the 40 years under review, 1881 to 1921, the population of Great Britain has grown from 30 to 43 millions, an increase of 13 millions. This increase, equal to 43 per cent., without any increase in the home production of wheat, is of itself a factor of the first importance, and the degree of that importance may be measured by the fact that the estimated total white population in the whole of the British Empire Overseas in 1921 was 18 millions.

Distinguishing between the sexes, the numbers\* have been as under:—

Census Year.	Male.		Female.		Total.	
	Number.	Per-centage on total.	Number.	Per-centage on total.	Number.	Per-centage increase on previous Census.
1881 ..	14,439,377	49	15,270,635	51	29,710,012	14
1891 ..	16,003,118	48	17,025,054	52	33,028,172	11
1901 ..	17,902,368	48	19,097,578	52	36,999,946	12
1911 ..	19,754,447	48	21,076,949	52	40,831,396	10
1921 ..	20,422,881	48	22,346,315	52	42,769,196	5

\* See Table 1, p. 399.



*Age Grouping.*

The numbers in the population under and over 10 years of age,\* respectively, are as under :—

Census Year	Male.		Female.		Male and Female together.	
	Under 10 years of age.	10 years of age and over.	Under 10 years of age.	10 years of age and over.	Under 10 years of age.	10 years of age and over.
1881	3,812,444	10,626,933	3,816,431	11,454,204	7,628,875	22,081,137
1891	3,964,942	12,038,176	3,963,711	13,061,343	7,928,653	25,099,519
1901	4,112,028	13,790,340	4,117,751	14,979,827	8,229,779	28,770,167
1911	4,309,466	15,444,981	4,288,216	16,788,733	8,597,682	32,233,714
1921	3,926,747	16,496,134	3,863,601	18,482,714	7,790,348	34,978,848

The increases or decreases in the numbers in each of these groups on the corresponding numbers in the previous Census† are as under :—

Census Year.	Male.		Female.		Male and Female together.	
	Under 10 years of age.	10 years of age and over.	Under 10 years of age.	10 years of age and over.	Under 10 years of age.	10 years of age and over.
1881 ..	489,730	1,287,570	500,939	1,359,489	990,669	2,647,059
1891 ..	152,498	1,411,243	147,280	1,607,139	299,778	3,018,382
1901 ..	147,086	1,752,164	154,040	1,918,484	301,126	3,670,648
1911 ..	197,438	1,654,641	170,465	1,808,906	367,903	3,463,547
1921 ..	Decrease 382,719	1,051,153	Decrease 424,615	1,693,981	Decrease 807,334	2,745,134

The following table, constructed from information contained in the Annual Reports of the Registrars-General for England and Wales, and Scotland, respectively, throw light on the above figures, and in particular on the marked recent decreases in number of children under 10 years of age; and they indicate further that the decrease in the rate of growth of the population of Great Britain is continuing.

\* The age of 10 years has been selected as the dividing point because, in the case of the occupied population which is dealt with below, it is only in respect of that age that comparisons can be carried back to 1881.

† See Table 2, p. 400.

Period.	Birth rate per 1,000.	Death rate per 1,000.	Infant mortality, i.e., deaths of children under one year of age per 1,000 births.
1871-1880 .. .. .	35·4	21·4	145
1881-1890 .. .. .	32·4	19·2	139
1891-1900 .. .. .	29·9	18·2	150
1901-1910 .. .. .	27·3	15·5	126
1911-1920 .. .. .	22·9	14·5*	101
1913 .. .. .	24·3	14·0	109
1919 .. .. .	18·9	14·2*	91
1920 .. .. .	25·8	12·7*	81
1921 .. .. .	22·7	12·3	84
1922 .. .. .	20·8	13·0	80
1923 .. .. .	20·1	11·7	71
1924 .. .. .	19·2	12·5	78

The marked effect of the decrease in the birth and death rates, and of the war, on the age-grouping of the population is clearly shown by the figures given in the later Memorandum in this Chapter on the Number of Persons of Working Age in Great Britain (p. 69).

#### *Migration.*

As regards the effect of emigration and immigration on the growth of population between 1881 and 1921, the Memorandum on p. 65 summarises the available information on the extent of migration from this country since 1881. It will be seen that, prior to 1st April, 1912, the best measure of the net loss in population by emigration is the excess of outward over inward passengers of British nationality between the United Kingdom and non-European countries, and the memorandum shows that in the decade 1891-1900 the amount of this excess was 726,033, and in the decade 1901-1910, 1,481,139.

Since April 1, 1912, there are records showing both the emigration and immigration of persons of British nationality between the British Isles and non-European countries, and the comparative figures, recorded under the new method, for the years 1913 and 1922-24 are as under :—

Year.	Emigrants.	Immigrants.	Excess of Emigrants over Immigrants.
1913 .. .. .	344,998	79,769	265,229
1922 .. .. .	153,003	62,587	90,416
1923 .. .. .	234,004	55,268	178,736
1924 .. .. .	147,214	62,270	84,944

\* Including civilian mortality only for England and Wales from 1915-20.

There remains for consideration the effect on the growth of population, of immigration from European and other countries of persons of non-British nationality. So far, we have no materials upon which to base estimates, but the Census of 1921 showed for England and Wales a total of only 328,641 men, women and children, as born in foreign countries.

#### Employment.

Turning now to the more immediate subject of our enquiry, the employment of the population of Great Britain in the 40 years under review, the Census has shown\* the numbers following definite occupations, either as employers or employed, as under :—

Census.	Males.		Females.		Males and Females together.	
	Number.	Percentage of Total Male Population of 10 years and over.	Number.	Percentage of Total Female Population of 10 years and over.	Number.	Percentage of Total Population of 10 years and over.
1881 ..	8,851,496	83·3	3,887,128	33·9	12,738,614	57·7
1891 ..	10,010,324	83·2	4,489,408	34·4	14,499,732	57·8
1901 ..	11,548,164	83·7	4,763,375	31·8	16,311,539	56·7
1911 ..	12,929,619	83·7	5,423,944	32·3	18,353,563	56·9
1921 ..	13,655,895	82·8	5,701,424	30·8	19,357,319	55·3

In the above figures children under the age of 16 have been included as under (see Table 3, p. 401) :—

Census.	Boys.			Girls.			Boys and Girls together.		
	Under 14.	14 and 15.	Total under 16.	Under 14.	14 and 15.	Total under 16.	Under 14.	14 and 15.	Total under 16.
1881	Not recorded.			Not recorded.			Not recorded.		
1891	Not recorded.			Not recorded.			Not recorded.		
1901	149,107	564,843	663,000	76,914	370,348	420,214	226,021	935,191	1,083,214
1911	98,157	564,843	663,000	49,866	370,348	420,214	148,023	935,191	1,083,214
1921	43,876	532,441	576,317	28,876	366,033	394,909	72,752	898,474	971,226

Notwithstanding the increase of 13 millions in the population of Great Britain in the 40 years under review, the proportion of the total population engaged in definite occupations has remained

\* See Table 3, p. 401.

practically constant. In 1881 it was 58 per cent. and in 1921, 55 per cent. of the total population of 10 years of age and upwards, and the decrease is more than accounted for by the decrease in the employment of children under the age of 14.

The proportion of women engaged in definite occupations has fallen to a greater extent than can be accounted for by the decrease in the employment of girls under 14.

The information contained in the Census of 1921 in relation to the numbers engaged in each of the principal industries followed in Great Britain, is complete in itself, but there are difficulties in using it for comparative purposes. In the Censuses of 1921 and 1911, persons engaged in the different industries were classified under those industries, but in the Census of 1901, and back to 1881, persons in occupations common to all industries, e.g., maintenance staff, clerks, carmen, &c., were classed according to their occupations and not by the industry in which they were engaged. Further, in the "Summary of Occupations" published in the Abstract of Labour Statistics, the classification differed from that followed in the Census Returns, e.g., persons employed in catering were included under the heading "Food," and not "Personal Service."

The condensed form in which the industrial statistics of Scotland for 1911 were presented has made difficult the re-grouping of the population of Great Britain in earlier years on the lines followed in the Census of 1921, but for England and Wales the work, so far as is practical, has been done for us by the Registrar-General for the years 1881, 1891, 1901 and 1911.\* The results are embodied in Table 6, p. 418, which includes also for convenience the corresponding figures for 1921. For the year 1911 the table gives in column (a) the numbers classified according to the method employed from 1881 up to 1901, and in column (b) the numbers classified according to the method employed in 1921. Taken as a whole the table appears to us to be sufficient for the purpose of judging the general trend during the last 40 years in the distribution of population over the different occupations, especially if such trend from 1881 to 1911 be judged on the columns up to (a) of 1911, and the figures for 1921 be compared with those in column (b) of 1911.

In the following summary, the numbers (so far as they can be ascertained) engaged in each of the main groups of industry are given as a proportion of each 10,000 of the total population of England and Wales shown as engaged in definite occupations, in each of the Census Returns that have been under review.

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\* The numbers engaged in the various industries in 1921 are shown in Table 4 (p. 403) separately for England and Wales,\* for Scotland and for Great Britain, and examination shows no substantial difference in trend, in the distribution of population over the different occupations, in the figures for England and Wales as compared with Great Britain.

## DISTRIBUTION OF POPULATION.

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*(England and Wales).*

Group of Industry.	Proportion of each 10,000 Occupied Persons.					
	1881.	1891.	1901.	1911*		1921.
				(a)	(b)	
I.—Fishing .. .. .	27	20	17	15	18	23
II.—Agriculture .. .. .	1,212	1,008	836	797	755	654
III.—Coal Mining .. .. .	342	406	449	539	596	659
Other Mining and Quarrying, &c.	114	88	103	92	96	90
Total in Occupations I to III..	1,695	1,522	1,405	1,443	1,465	1,426
<i>Manufacturing Industries.</i>						
IV.—Bricks, Pottery and Glass	106	99	109	94	105	103
V.—Chemicals, Paints, &c. ..	32	37	47	59	81	115
VI.—Metals, Machines, Implements and Conveyances	713	738	860	925	931	1,237
VII.—Cotton .. .. .	437	428	369	372	386	347
Wool and Worsted .. .. .	199	190	146	137	143	138
Silk .. .. .	54	38	24	18	20	19
Hosiery .. .. .	36	38	34	35	36	47
Lace .. .. .	40	27	25	25	27	14
Other Textiles .. .. .	88	72	54	50	54	41
Bleaching, Printing, Dyeing and Finishing	40	37	42	52	55	59
VIII.—Preparation of Skins, Manufactures of Leather (not boots or shoes)	57	58	55	51	53	47
IX.—Clothing (including boots and shoes)	?	?	715	641	645	474
X.—Food .. .. .	?	?	151	181	207	220
Drink .. .. .	?	?	?	?	67	68
Tobacco .. .. .	?	?	19	17	19	27
XI.—Wood-working, Furniture, &c.	?	?	160	151	149	133
XII.—Paper-making, Printing, &c.	?	?	154	168	175	198
XIII.—Building, Decorating and Contracting	?	?	734	590	529	442
Total in Occupations IV to XIII	?	?	3,698†	3,566†	3,682	3,729
XIV.—Other Manufacturing Industries	?	?	?	?	122	150
Total in Manufacturing Industries	?	?	?	?	3,804	3,879

\* The figures for 1911 are given in Column (a) on the basis of classification followed in the Census 1881-1911, and in Column (b) on the basis of classification followed in the Census 1921.

† Excluding Drink.

(England and Wales)—continued.

Group of Industry.	Proportion of each 10,000 Occupied Persons.					1921.
	1881.	1891.	1901.	1911* (a)   (b)		
<i>Other Occupations.</i>						
XV.—Gas, Water, Electricity	19	27	39	48	67	95
XVI.—Transport and Communications	?	?	?	?	692	701
XVII.—Commerce and Finance	?	?	?	?	?	1,324
XVIII.—National Government and Defence	?	?	?	?	254	377
Local Government . . . .	?	?	?	?	300	401
XIX.—Professions . . . .	?	?	?	?	?	300
XX.—Entertainments and Sports	?	?	?	?	?	71
XXI.—Personal Service including Hotels and Catering, but excluding Government and Local Authority	?	?	?	?	1,506	1,179
XXII.—Other Industries or Industry not stated	?	?	?	?	?	247
Total in Occupations XV to XXII	?	?	?	?	4,731	4,695

On account of the variation in the methods of classification, to which reference has already been made, the very great changes that have taken place in the numbers in which particular occupations have been followed in the 40 years under review can only be summarized in rough approximate figures. So far as the figures are comparable, they indicate that:—

(i) In the industries for which the figures for Great Britain are available—

(a) *Agriculture.*—The total numbers have fallen from upwards of 1,500,000 to 1,300,000, whilst the proportion has fallen from over 1,200 to under 700 per 10,000 of occupied persons.

(b) *Coal Mining.*—The total number has risen from nearly 500,000 to 1,300,000, whilst the proportion has increased from nearly 400 to nearly 700 per 10,000 of occupied persons.

(c) *Manufacture of Metals, Machines, Implements and Conveyances.*—The total number has risen from over 900,000 to nearly 2,500,000, whilst the proportion has increased from over 700 to nearly 1,300 per 10,000 of occupied persons.

(d) *Manufacture of Textiles.*—The total number has remained fairly constant between 1,200,000 and 1,300,000,

\* The figures for 1911 are given in Column (a) on the basis of classification followed in the Census 1881–1911, and in Column (b) on the basis of classification followed in the Census 1921.

whilst the proportion has fallen from over 900 to under 700 per 10,000 of occupied persons.

(ii) For the industries for which comparative figures for England and Wales alone are available—

(e) *Manufacture of Clothing*.—The figures prior to 1901 are not available. The total number since that date has fallen from about 1,000,000 to about 800,000, whilst the proportion has fallen from over 700 to under 500 per 10,000 of occupied persons.

(f) *Building, Decorating and Contracting*.—The figures prior to 1901 are not available. The total number since that date has fallen from about 1,000,000 to about 750,000, whilst the proportion has fallen from over 700 to under 450 per 10,000 of occupied persons.

(g) *Manufacturing Industries other than those referred to from (c) to (f)*.—Speaking generally, there have been increases in both the numbers and proportions of the persons occupied in these industries.

(iii) For occupations not directly concerned in production, such as Transport and Communications, Commerce and Finance, National Government and Defence, Local Government, and Personal Services, comparative figures are not available. There have, beyond question, been very considerable changes in the numbers and proportions engaged in such occupations, but as the figures indicate that since 1901 the proportion of the occupied population engaged in all the industries directly concerned in production has remained practically constant at about one-half, it follows that the proportion engaged in all the other occupations has also remained practically constant at about one-half of all the occupied persons.

We discuss elsewhere\* the material available to enable a judgment to be formed of the extent to which those employed in the definite occupations with which we are dealing have been unemployed. From a more general point of view that material may be supplemented by the returns showing so far as is practicable the number of persons in receipt of poor law relief in England and Wales throughout the 40 years under review and in the post-war years. The comparisons cannot be complete, as the practice of taking a detailed census of the persons in receipt of poor law relief on the first day of each calendar year was interrupted in the years 1916 to 1919, both inclusive. Further, from 1881 to 1911–12 (or, in the case of those in receipt of institutional relief, 1913–14), the returns distinguished between ordinarily able-bodied adults and others. These classifications were then discarded in favour of a fresh statistical arrangement which aims principally at a definite subdivision of the persons relieved into two main classes, namely, those suffering from sickness, accident, or

\* See Chapter IV, p. 217.

bodily or mental infirmity, and other persons. The aggregate figures for the decade from 1911-20 are therefore not available for the purpose of comparison with those of previous decades, but in the First Annual Report of the Ministry of Health (for the year 1919-20) it was pointed out\* :—" It is not possible to establish a close comparison between the numbers previously enumerated as 'able-bodied' and those now enumerated as 'other persons.' But the table shows that, just as the 'able-bodied' persons in receipt of poor law relief were only a very small fraction of the population (less than 4 per 1,000), so those who under the new arrangement are classified as 'other persons' (i.e., persons not suffering from sickness, accident, or bodily or mental infirmity) number, alike in London and in the country as a whole, less than 3 per 1,000 of the population."

The following Table has been constructed from the annual reports of the Ministry of Health, and must be read in the light of the above explanation :—

*Mean Number† of Persons in receipt of Poor Law Relief in England and Wales.*

Period.	Adult (able-bodied) exclusive of Vagrants.	Others.	Total.	Rate per 1,000 of estimated Population.
1881-1890.. ..	99,272	685,184	784,456	28·9
1891-1900.. ..	100,159	691,571	791,730	26·1
1901-1910.. ..	109,168	660,455	769,623	22·7
1911 .. ..	124,272	658,719	782,991	21·9
1912 .. ..	120,217	555,315	675,532	18·7
1913 .. ..	Not ascertained.		676,985	18·6
	Others.	Suffering from bodily or mental infirmity.		
1914 .. ..	113,371	528,461	641,832	17·6
1915 .. ..	118,330	526,110	644,440	17·4
1916 .. ..	Not ascertained.		590,655	15·9
1917 .. ..	"	"	541,110	14·4
1918 .. ..	"	"	501,853	13·3
1919 .. ..	"	"	469,404	12·5
1920 .. ..	85,146	393,615	478,761	12·7
1921 .. ..	Not ascertained		539,935	14·3
1922 .. ..	"	"	1,355,793	35·7
1923 .. ..	"	"	1,611,773	42·2
1924 .. ..	"	"	1,277,879	33·2
1925 .. ..	"	"	1,127,879	29·1

\* See [Cmd. 932]—1920, pp. 13-14.

† The numbers shown are (subject to certain minor adjustments for the years since 1915), the mean of the numbers relieved on or about the 1st January of the year concerned and on or about the 1st July preceding. The numbers do not include "casuals."



*Marital Condition and Dependents.*

Amongst those aged 16 and over engaged in definite occupations in Great Britain, the percentage of unmarried in 1921 was 35·5 per cent. in the case of the men and 77·3 per cent. in the case of the women.\*

The numbers of dependents (i.e. living children and step-children under 16) of married men and widowers following definite occupations were shown for the first time in the Census of 1921, but were published in fuller detail for England and Wales than for Scotland.† The average number of such dependents, calculated by dividing their total number by the total number of occupied married men and widowers (whether with children or childless), were 1·32 and 0·43 respectively in England and Wales, and 1·60 and 0·53 respectively in Scotland.

## EXTENT OF MIGRATION.

[Furnished by the Board of Trade.]

The records from which the volume of the emigration from the United Kingdom, and the variations in that volume from time to time, may be judged were, until comparatively recently, designed for other purposes than the provision of a statistical record of migration. Prior to 1st April, 1912, the information secured related to "passengers," and their destinations and origins were not ascertained except in so far as they might be indicated by the ports of debarcation or embarcation. In view of the importance of the North American traffic, this qualification is by no means negligible.

From the year 1870 the numbers of both outward and inward passengers to and from countries outside Europe were recorded. In certain cases returns were not compulsory, but these exceptions were not important. Thus the loss by migration of extra-European countries was believed to be closely represented by the recorded figures. As regards European countries, it has been held, and with reason, that the passenger movement to and from Europe has little connection with the problem of British migration. Hence the excess of outward over inward passengers in the traffic with countries outside Europe and not on the Mediterranean Sea may, on the whole, be regarded as reflecting the approximate magnitude of the emigration movement, and the variations which it undergoes from time to time. The figures from 1881 onwards are shown in the following table.

\* See Table 7, p. 427.

† See Table 8, p. 428.

*Excess of Outward over Inward British Passengers in the Traffic between the United Kingdom and Extra-European Countries.*

Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.
1881	190,295	1891	115,470	1901	72,016	1911	261,809	1921	118,938
1882	224,655	1892	112,262	1902	101,547	1912	268,485	1922	99,882
1883	246,314	1893	106,695	1903	147,036	1913	241,997	1923	190,383†
1884	150,823	1894	37,721	1904	126,854	1914	63,334	1924	88,411†
1885	122,176	1895	75,763	1905	139,365	1915	24,733*		
1886	152,882	1896	60,183	1906	194,671	1916	8,175*		
1887	196,012	1897	51,239	1907	235,092	1917	448*		
1888	185,795	1898	49,396	1908	91,156	1918	1,905		
1889	150,725	1899	46,116	1909	139,693	1919	27,002		
1890	108,646	1900	71,188	1910	233,709	1920	172,747		
Total 1881- 1890	1,728,323	Total 1891- 1900	726,033	Total 1901- 1910	1,481,139	Total 1911- 1920	1,003,923	Total 1921- 1924	497,614

This record appears to indicate that emigration from this country has not, broadly speaking, represented a flight from industrial depression, but a reaching out after the broader opportunities of a new country, since the movement has been great when business has been prosperous, and comparatively small when business has been depressed. A large proportion of the total emigration has been directed to North America, and it is well known that, in general, business activity in North America has been closely associated in time with business activity in this country.

The indications of the magnitude of the emigration movement afforded by the lists of passengers outwards and inwards may be compared with the results deduced from the records of successive Census Enumerations and the registered births and deaths in the intercensal periods. The difference between the balance of births and deaths during an intercensal decade on the one hand, and the growth of population recorded in the census on the other hand, ought to afford a measure of the loss by emigration. The following statement compares the figures thus deduced with the excess of outward British passengers calculated from the previous table.

\* Excess of inward passengers.

† From 1st April, 1923, the figures are exclusive of passengers who departed from, or arrived at, ports in the Irish Free State. The excess outward of such passengers of British nationality was 7,434 in the nine months ended December, 1923, and 10,173 in the year 1924.

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Period. (Census date to Census date.)	Loss by Migration deduced from census, &c.	Excess of Outward British Passengers.
1871-81 .. .. .	918,000	994,000
1881-91 .. .. .	1,556,000	1,710,000
1891-1901 .. .. .	576,000	715,000
1901-11 .. .. .	1,083,000	1,528,000

There having been no census in Ireland in 1921, the figures derived from the census and registration records which correspond with the passenger statistics cannot be given for the decade 1911-21.

While the divergencies between the deduced migration losses and the passenger balance for the first two decades of the comparison, 1871-1891, are not very great, and might be interpreted as reflecting in part a net immigration of foreigners, the figures for the later decades 1891-1911 show divergences of very serious magnitude. The figure of 576,000 for the net loss in 1891-1901 includes the additions to the British fighting forces in South Africa, and that of 1,083,000 for 1901-11 represents the net loss after the troops had returned. Thus the former should be decreased, and the latter increased, by about 200,000 to 250,000. This makes the decade 1891-1901 the period of greatest divergence, absolute and relative, between the two results. Whatever the causes, it is clearly unsatisfactory to rely on a year to year record which, over a decade, shows divergence of this magnitude from the facts as otherwise ascertained. To meet the difficulty, the passenger lists were altered from 1st April, 1912, so as to show, for outgoing passengers, the country or division of the United Kingdom in which they had been resident, and the country of future residence; and for incoming passengers, the country of last residence and the future residence, distinguishing the division of the United Kingdom in which the future residence lay if situated in this country.\* For the purposes of the record, residence is taken as established when its duration reaches a year or more. Such a definition is necessary to give definiteness to the statements required from passengers. The passengers shown as changing their country of residence from or to the United Kingdom are tabulated as migrants.

While the change of system appears to have led to some confusion at first, the results have, since the war, possibly in

\* Even now passengers leaving for, or arriving from, the Continent (including all places on the Mediterranean Sea) are not required to furnish particulars regarding themselves and their journeys except in the case of alien passengers. The aggregate numbers of inward and of outward passengers are, however, furnished by the owners of the vessels conveying the passengers.

part owing to the practice of making precise records of nationalities, &c., during the war and the continued active use of passports, been much more satisfactory. The excess of British emigrants over British immigrants, according to the standard just explained, has been recorded for Great Britain as follows :—

Year.	12 years and over.		Children under 12.	Total.
	Male.	Female.		
1913 .. .. .	117,225	95,378	52,626	265,229
1914 .. .. .	28,308	41,534	17,436	87,278
1915* .. .. .	<i>19,106</i>	<i>1,097</i>	<i>5,548</i>	<i>25,750</i>
1916* .. .. .	<i>4,848</i>	<i>1,659</i>	<i>4,454</i>	<i>10,961</i>
1917* .. .. .	<i>2,612</i>	207	72	<i>2,333</i>
1918* .. .. .	<i>467</i>	1,585	789	1,907
1919 .. .. .	13,897	38,028	5,672	57,597
1920 .. .. .	72,262	76,826	25,500	174,588
1921 .. .. .	41,656	46,877	17,982	106,515
1922 .. .. .	45,210	32,836	12,370	90,416
1923 .. .. .	101,794	52,781	24,161	178,736
1924 .. .. .	36,588	32,756	15,600	84,944

As the new system did not come into operation until 1st April, 1912, the inter-censal record 1911-21 can be obtained only by a process of estimation and deduction. This process indicates the migration balance for 1911-21 as being 1,134,000, a figure exceeding by 247,000 that derived from the Census and registration record.† It is practically certain that, in the first years of the new form of return, there were shown as emigrants a larger number than were currently migrating from this country. The considerable disturbance caused subsequently by war conditions has also operated to affect the efficiency of the new records.

\* In these years, excesses of inward over outward movements are shown by italic figures.

† These figures relate to Great Britain, and are therefore not comparable with the table of inter-censal figures given above, which relate to the entire United Kingdom.

NUMBER OF PERSONS OF WORKING AGE IN  
GREAT BRITAIN.

[Furnished by the Board of Trade.]

The numbers of each sex enumerated at ages 15-64, and their proportions to the totals of males and of females enumerated at successive censuses in Great Britain, have been as follows:—

Date of Census.	Males.			Females.		
	15-64.	All Ages.	Per cent. 15-64.	15-64.	All Ages.	Per cent. 15-64.
1861 ..	6,590,000	11,226,000	58·8	7,202,000	11,902,000	60·5
1871 ..	7,366,000	12,662,000	58·2	8,023,000	13,410,000	59·8
1881 ..	8,406,000	14,439,000	58·2	9,095,000	15,271,000	59·6
1891 ..	9,509,000	16,003,000	59·4	10,359,000	17,025,000	60·7
1901 ..	11,132,000	17,902,000	62·2	12,093,000	19,098,000	63·3
1911 ..	12,536,000	19,754,000	63·5	13,572,000	21,077,000	64·4
1921 ..	13,309,000	20,423,000	65·2	14,937,000	22,346,000	66·8

If the ages 15-64 be taken as representing approximately the ages of industrial employment, the remarkable fact is shown that, in spite of the losses of men in the most active period of life which the war caused, the proportion of males at the productive ages was greater in 1921, and considerably greater, than at any previous census. The heavy survivals into the ages above 45, which were little affected by war casualties, were sufficient to outweigh the special war losses.

The improved conditions of health in the population at large are shown in the comparisons of the numbers surviving, census by census, from those recorded as ten years younger at the preceding enumeration. After 1921, too, the volume of emigration was less than in the ten years preceding the war (p. 66). The effect of these two influences on the rate of expansion in numbers is left out of account in the following comparison of pre-war and post-war populations of Great Britain. The table is limited to the male sex.

A comparison of the figures in columns (3) and (4) shows a deficit of 643,000 in the aggregate in the latter column. This figure includes the addition of 28,000 to the forces serving overseas, comparing 1921 with 1911. The remaining 615,000 is a total differing little from that of the deaths officially enumerated as occurring outside this country. This implies that war deaths occurring in hospital, &c., at home were approximately equivalent to the deaths which would have occurred in the natural course of events. It should,

however, be remembered that, owing to the shortage of employment for shipping in June, 1921, there were at that time a substantial number of men ashore who would ordinarily have been serving on vessels at sea. They may be roughly estimated as about 30,000 in all, besides 10,000 fishermen.

Ages.	1911 Enumerated.	1913 Estimated.*	1921.		1926 Estimated.*
			Estimated* at pre-war rates of survival.	Enumerated.	
	(1)	(2)	(3)	(4)	(5)
0-14 ..	6,304,000	6,245,000	—	6,011,000	5,800,000
15-19 ..	1,888,000	1,893,000	1,996,000	1,967,000	1,977,000
20-24 ..	1,705,000	1,742,000	1,791,000	1,651,000	1,867,000
25-29 ..	1,638,000	1,621,000	1,695,000	1,512,000	1,583,000
30-34 ..	1,546,000	1,585,000	1,563,000	1,436,000	1,463,000
35-39 ..	1,419,000	1,428,000	1,331,000	1,424,000	1,380,000
40-44 ..	1,208,000	1,308,000	1,426,000	1,369,000	1,366,000
Total, 15-44	9,404,000	9,577,000	10,002,000	9,359,000	9,636,000
45-49 ..	1,041,000	1,042,000	—	1,304,000	1,302,000
50-54 ..	867,000	916,000	—	1,091,000	1,199,000
55-59 ..	687,000	705,000	—	878,000	967,000
60-64 ..	537,000	555,000	—	677,000	756,000
Total, 45-64	3,132,000	3,218,000	—	3,950,000	4,224,000
Total, 15-64	12,536,000	12,795,000	—	13,309,000	13,860,000
65 and over	914,000	956,000	—	1,103,000	1,240,000
All ages ..	19,754,000	19,996,000	—	20,423,000	20,900,000

The deficit in the numbers enumerated in 1921 at ages 15-19 is striking, in view of the fact that, at the armistice, none of those belonging to this group would be as much as 17½ years old. The addition to the troops abroad would affect mainly the numbers at ages 18 to 25. Thus a part of the deficit in question may be attributed to this cause, and part may be due to such changes as may have occurred apart from the war. Both in column (3) and

\* The average annual rates of decrease in the several age-groups corresponding to the figures shown in the next following table have served as the basis of these estimates. The figures for the age-groups 0-14 and 65 and over require other information for their calculation. The latter is based on Table F in the Report by the Government Actuary on the Financial Provisions of the Widows, &c., Pensions Bill. Cmd. 2406. The former has been inserted, after consultation with the Registrar General, as indicating the approximate numerical importance of the group.

in column (5) some addition should be made to the numbers at ages 25-35, and a corresponding decrease made in the numbers under 25, in respect of changes of personnel in our forces on foreign service. The effect of the laying up of ships is to add to the numbers enumerated, mainly between 15 and 45. A secondary effect will be to increase the numbers calculated as survivors at a later date as shown in column (5).

The six age periods affected by the war losses give the results shown below, the rates of change during the following 20 years of life being also shown :—

*Survivors Per Cent. from Preceding Census.*

Ages.	1891.	1901.	1911.	1921.	
				Used above.	Actual.
	(1)	(2)	(3)	(4)	(5)
15-19 ..	93·31	94·97	94·97	94·95	93·42
20-24 ..	88·40	91·46	89·27	90·00	82·79
25-29 ..	86·17	90·07	89·11	90·00	80·09
30-34 ..	86·55	92·06	91·86	91·90	84·27
35-39 ..	87·57	92·90	94·00	93·60	86·91
40-44 ..	88·51	91·81	92·33	92·40	88·54
45-49 ..	86·23	87·86	89·23	91·90	
50-54 ..	81·66	85·42	85·26	90·24	
55-59 ..	75·49	77·47	79·86	84·32	
60-64 ..	73·51	74·74	74·60	78·16	

If the proportions in column (4) be reasonably close to the peace-time rates of survival, the ages 20-29 account for one-half the extra deaths due to the war, and the effect on the numbers surviving will be most marked at the corresponding ages at later dates, particularly in the survivals from those who were between 25 and 30 in 1921.

The numbers at the different ages in 1913, given in the preceding table, are based on the numbers recorded at the 1911 Census, shown in column (1), and those in column (3) of that table; and the numbers for 1926 are based on survival rates, from the numbers recorded in 1921, similar to those which yield the figures in column (3) from the records of the 1911 Census. If the assumptions represented by these calculations can be accepted, the number of males at the ages 15-40 in 1926 is substantially the same as in 1913, but a larger proportion is below 25, and a smaller proportion between 25 and 40 than in 1913. Over 40, 1926 shows an excess over 1913.

The great excess of men to be employed in 1926 as compared with 1913 is found at ages exceeding 45. Between 45 and 65 the excess is shown as 1,006,000, or over 30 per cent., as compared with 1913. Half the growth between 1921 and 1926 in numbers of men to be employed falls to the ages over 45. Carrying on similar calculations to 1931, the increase at ages 15-44 over the 1926 total amounts in round figures to 200,000, and the increase at ages 45-64 to 270,000. By 1931 the smaller birth-rate will affect the numbers at ages 15-19, which will have fallen to about the numbers at these ages in 1913. The numbers aged 30-39 in 1931 will also probably be somewhat less than in 1913. A feature of importance is that the numbers surviving to ages over 65 will be increasing, and that the adolescents will be decreasing, the male population as a whole continuing to increase.

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## CHAPTER II.

## WAGES.

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NOTE :—As regards rates of payment for overtime see pp. 131-4 and 433-443; Trade Board rates pp. 292-3 and 470-1; and profit-sharing pp. 318 *et seq.*

## LEVELS OF RATES OF WAGES, 1914 AND 1925.

[Furnished by the Ministry of Labour and, as regards coal-mining, by the Mines Department.]

**Limitations of available data.**

No comprehensive statistics of wages in this country have been compiled for any year since 1906, when a general enquiry into earnings and hours of labour was undertaken by the Board of Trade.\* For nearly all industries, therefore, the information available for the purpose of a comparison of wages current immediately before the war and present wages is limited to the particulars collected from time to time by the Ministry of Labour as to the standard or minimum rates of wages fixed by collective agreements between employers' organisations and trade unions, or embodied in arbitration awards and Orders under the Trade Boards Acts, or, in the absence of such agreements, awards or Orders, the minimum rates recognised by the trade unions concerned. In some cases in which the actual rates of wages are not embodied in signed agreements, information is available as to the amounts of changes, in the general level of rates of wages, agreed upon from time to time by the employers' and workers' organisations.

No information is available, however, as to the changes which have occurred in rates of wages in industries, or sections of industries, in which neither standard nor minimum rates, nor the general amount of increase or decrease in rates of wages, have been fixed by collective agreements, arbitration awards, Statutory Orders, &c. It should be observed that the rates of wages actually paid to individual workpeople, or to particular sections of workpeople, may, in a considerable proportion of cases, have been altered since 1914, independently of the general changes jointly agreed upon by employers' associations and trade unions, or fixed by awards, Orders, &c.; and that alterations in machinery, in methods of manufacture, in industrial organisation, and in systems of remuneration of workpeople, may also, over a period of ten years, have resulted in appreciable changes in the general level of wages in some industries. In the absence of any general investigation into the rates of wages actually paid by individual employers, the data essential to the accurate measurement of the changes in wages resulting from the operation of such factors are not available. Comparisons of the wages current in the summer of 1914 and present wages based on the available official information, therefore, should not be regarded as furnishing a precise measure of the change in the general level of money rates of wages between the two dates, and caution is especially necessary in drawing from them conclusions the validity of which may depend on small differences between one figure and another.

\* See Cd. 4545, 4844, 5086, 5196, 5460, 5814, 6053 and 6556. A general enquiry into earnings in 1924 is now in progress but it is not expected that the compilation of the statistics will be completed before the summer of 1926.

The levels of rates of wages current in the summer of 1914 have been used throughout this memorandum as the basis with which to compare post-war wages. As an indication of the course of wages between 1900 and 1914, the following table gives the index numbers prepared in the years preceding the war by the Board of Trade showing the general course of wages in the United Kingdom.\* These were compiled from returns furnished to the Department in respect of the building trades, coal mining, engineering and the textile trades. It will be seen that the changes revealed by these index numbers were, comparatively speaking, slight.

*Index Numbers showing General Course of Wages in the United Kingdom, 1900 to 1913.*

<i>End of Year</i>						<i>Mean.</i>
1900	..	..	..	..	..	100.0
1901	..	..	..	..	..	98.6
1902	..	..	..	..	..	97.0
1903	..	..	..	..	..	96.3
1904	..	..	..	..	..	95.6
1905	..	..	..	..	..	96.0
1906	..	..	..	..	..	97.7
1907	..	..	..	..	..	101.8
1908	..	..	..	..	..	101.0
1909	..	..	..	..	..	99.5
1910	..	..	..	..	..	99.7
1911	..	..	..	..	..	99.9
1912	..	..	..	..	..	102.7
1913	..	..	..	..	..	105.6
1914 (July)	..	..	..	..	..	105.9

**General Comparison of Money Wages, 1914 and 1925.**

The available information shows that there are wide diversities, among different classes of workpeople, both in the actual amounts and in the percentages of increase over the rates of wages prevailing immediately before the war. In some cases, e.g., with steel smelters and with iron miners in Cleveland, the increases between August, 1914, and June, 1925, were equivalent to only about 20 to 30 per cent. on the 1914 rates. On the other hand, in some cases, e.g., builders' labourers, some classes of railway workers, printers and bookbinders, and boot and shoe operatives, they averaged over 100 per cent. The information at the disposal of the Ministry of Labour is insufficient to enable the average percentage increase for all industries and occupations to be computed with precision, but it is estimated that at 30th June, 1925, weekly full-time rates of wages, in the industries for which information is available, averaged

\* Since their publication in the 17th Abstract of Labour Statistics some of the figures have been slightly amended in the light of later information. The amended figures are given here.

roughly 75 per cent. above the level of August, 1914. As considerable reductions in the normal weekly hours were made in nearly all industries in 1919 and 1920, the percentage increase in hourly rates of wages is substantially greater: on the average, it seems probable that hourly wages are roughly double what they were immediately before the war.

The average percentage increase in weekly full-time wages at the end of each half-year during the past five years, as compared with the beginning of August, 1914, is estimated, on the basis of such information as is available, to have been approximately as shown in the table below. In these particulars no account is taken of loss of earnings resulting from unemployment and short-time working, or of additions due to the working of overtime, or of the effects of increased or reduced exertion on the earnings of workpeople paid at piece-rates of wages, as to which comprehensive statistics are not available. It is also to be borne in mind that throughout this memorandum account is taken of money wages only, and no account is taken or allowance made for any goods or services (e.g., miners' coal or railwaymen's travelling facilities) which workpeople in particular employments may receive.

Year.	Estimated Average Percentage Increase over 1914 level in Weekly Full-Time Wages at end of	
	June.	December.
1920 .. ..	150-155	170-180
1921 .. ..	145-155	110-115
1922 .. ..	85- 90	70- 75
1923 .. ..	65- 70	65- 70
1924 .. ..	70	70- 75
1925 .. ..	75	—

#### Comparison of Money Wages in the exporting group of industries.\*

The following particulars† of the changes in rates of wages between August, 1914, and June, 1925, in each of the industries in the exporting group selected by the Committee, are subject to the general qualifications explained at the beginning of this memorandum. In view of these qualifications, caution is necessary in making comparisons between one industry and another on the basis of this information, especially in cases in which the differences shown by the figures are relatively narrow.

\* See Note 3 on p. 54.

† These particulars are based on an article on Relative Levels of Rates of Wages at August, 1914, and December, 1924, which appeared in the "Labour Gazette" of February, 1925, and are corrected to June, 1925.

*Coal Mining.*

The information available as to the changes in wages in the coal-mining industry is insufficient to enable a trustworthy estimate to be made of the average increase in *rates* of wages in this industry since 1914. The general district percentage additions to standard basis rates of wages in the principal coalfields at the beginning of August, 1914, and at the end of June, 1925, were as shown below :—

District.	Date of Standard.	Percentage additions (a) to the Standard Rates of the years specified at		Percentage increase at 30th June, 1925, over level of 4th August, 1914.
		4th August, 1914.	30th June, 1925.	
Northumberland .. ..	1879	50	100·00	33
Durham .. .. .	1879	57½	110·00	33
Yorkshire and E. Midlands	1911	10	50·62	37
Laucs, N. Staffs and Cheshire	1911	10	46·66	33
S. Staffs and Salop .. .	1911	10	46·66	33
S. Wales and Monmouthshire	1915(b)	6½	42·22	33
Scotland .. .. .	1888	75	133·33	33

(a) As the standard basis rates to which the percentages apply vary in different districts, the percentages quoted should not be taken as indicating the relative level of wages in different districts.

(b) For the purpose of comparison, the level of wages at August, 1914, when the percentage addition was computed in terms of the old standard of 1879, has been expressed in terms of the new standard of 1915 now in operation.

These figures do not provide a full measure of the increase in wage rates, since special advances or allowances have been granted in addition, in many districts, to particular grades of men. In some cases the basis rates of wages (to which the percentages are added) have been varied; the lower-paid grades of men in many districts have received special "subsistence" allowances; men on afternoon and night shifts in South Wales, whose working week is generally one of five shifts, have been paid, since 1915, as for an extra shift each week; and piece rates of wages were increased, in the case of workpeople whose normal working hours were reduced, in 1919, in order to maintain earnings at the previous level. The percentage increase in rates of wages resulting from the combined effect of all these changes is not known precisely.

As regards earnings, however, statistics compiled by the Mines Department indicate that the average earnings per man-shift worked in June, 1914, and June, 1925, were as shown in the following table. The "subsistence" rates for lower-paid workers at June, 1925, are also given in the table.

District.	Average Earnings per Shift.		Percentage Increase.	"Subsistence" Rates per shift for lower-paid adult workers at June, 1925.
	June, 1914.	June, 1925.		
Northumberland ..	s. d. 6 2½	s. d. 9 2½	% 49	s. d. 7 7½
Durham ..	6 2½	9 11	60	7 6½
Yorks and E. Midlands	6 7½	10 11½	65	(See Note (a).)
Lancs., N. Staffs., and Cheshire	6 0½	10 0½	67	(See Note (b).)
South Wales and Mon.	6 9	10 7½	58	8 0½
Scotland ..	6 9	10 3	52	7 10½(c)
Other Districts ..	5 6½	9 5½	72	(See Note (d).)
All Districts ..	6 5½	10 4½	60	

(a) 6d. per shift in excess of earnings, subject to a maximum of 8s. 9d. per shift (inclusive). In Warwickshire surfacemen are not to fall below a minimum of 8s. per shift and underground men 8s. 6d. per shift.

(b) 1s. 1½d. per shift in excess of earnings, subject to a maximum of 8s. 9d. per shift (inclusive).

(c) The rate is subject to the provision that the addition to earnings shall not exceed 1s. 1½d. per day and applies to surface workers only.

(d) Cumberland, 7s. 5½d.; S. Staffs. and Salop, 6s. 2d. (surface workers only); Bristol—Gloucester side, additional 6½d. per shift, subject to maximum of 7s. 3½d. (underground), and 10d., with maximum of 6s. 9d. (surface).

It should be observed that the hours of labour were reduced in 1919 from eight to seven per shift for underground workers, and generally from between 51 and 58 to 46½ per week for surface workers. The percentage increases in hourly wages are thus greater than the percentage increases in earnings per man-shift shown above.

#### *Iron and Steel Industry.*

As is explained in the Memorandum on Systems of Wage Payment,\* changes in rates of wages in the smelting and rolling of iron and steel are closely related to those in selling prices. A considerable number of separate sliding scales exist for different sections of the industry, and there is, therefore, much complexity in the movements of wages in the industry. In attempting to compare the level of wage rates at July, 1914, and June, 1925, the position is further complicated by the fact that in some sections of the industry in certain districts basis rates have been revised and also special flat-rate advances have been granted to lower-paid workers, and the effects of such changes cannot, on the basis of available information, be estimated as percentages on the 1914 level of wages.

\* See p. 112.

In the following table, however, a comparison is given, so far as possible, of the level of rates of wages at August, 1914, and June, 1925, of some of the more important groups of workpeople :—

Class of Workers and District.	Percentage addition to standard rates at		Percentage Increase at 30th June, 1925, over level of 4th August, 1914.
	4th August, 1914.	30th June, 1925.	
	%	%	%
<i>last Furnace Workers.</i>			
Cleveland and Durham	23½(a)	12½(b)	40 to 85 (c)
Cumberland .. ..	25(a)	21½(b)	50 to 85 (c & d)
		(plus special bonuses).	
S. Wales and Mon. ..	27½	54½	21
Scotland .. ..	22½ & 27½ (a)	24(b)	(e)
<i>Iron Puddlers and Rollers.</i>			
Northumberland, Durham and Cleveland	(-) 2½	57½	62 (f) (g)
West Scotland .. ..	On the standard	55	55 (f)
<i>Iron Puddlers and Steel Rollers.</i>			
Midlands .. ..	On the standard.	65	65 (f)
<i>Iron and Steel Rollers and Steel Smelters.</i>			
S. Wales and Mon. (except certain firms in S.W. Wales)	27½	54½	21 (f)
<i>Steel Rollers.</i>			
West Scotland .. ..	On the standard.	40 (b)	(e) (g)
<i>Steel Smelters (various important districts in England and Scotland)</i>	11½	40	26 (f) (g)
	(basic process).	(basic process).	
	(-) 13½	15	33 (f) (g)
	(acid process).	(acid process).	
<i>abourers in Steel Smelting Shops and at Iron and Steel Rolling Mills, in some of the principal districts in England and Scotland</i>	23s. a week (approx.)	35s. 10d. to 40s. 2d. a week.	56 to 75

(a) On old standard.

(b) On new standard.

(c) The standard rates were increased between August, 1914, and June 1925; the figures quoted include the estimated effect of such increases.

(d) The figures quoted include the estimated effect of the special bonuses.

(e) No estimate of the effect of the increase of standard rates between August, 1914, and June, 1925, as a percentage on 1914 wages is available.

(f) These figures are exclusive of the effects of an arrangement made in 1919 when the hours of labour were reduced to eight per shift, whereby contributions were made by the workers, varying according to wages, up to 3½ per cent., towards the cost of the third shift, the wages of the lowest paid workers remaining unchanged for the shorter working period. The percentages of increase shown, therefore, apply only to the lower-paid men; or the higher-paid men the percentages of increase are lower.

(g) Special bonuses were being paid at June, 1925, to certain of the lower-paid workers. The information available is insufficient to enable the effect of such bonuses to be expressed as a percentage on 1914 rates, but the total percentage increase on the 1914 rates for such workers is in excess of the figures quoted.

While the figures given in the above table afford some information as to the extent to which the rates of wages for the same work have increased since 1914, it seems to be open to doubt whether they fully indicate the average increase in full-time wages since that year. In 1906, the weekly earnings at the blast furnaces and iron and steel works, as shown by returns received in connection with the Enquiry into Earnings and Hours of Labour,\* averaged about 33s. a week. The increases in rates of wages between 1906 and 1914 were generally small, and it would appear unlikely that at July or August, 1914, the average can have been substantially higher than 35s. or 36s. a week. Returns obtained by the National Federation of Iron and Steel Manufacturers for March, 1925, show average earnings of 63s. 7d. a week, and on this basis the percentage increase in weekly earnings between 1914 and 1925, would appear to be fully 70 to 80 per cent. notwithstanding the fact that the state of employment in the iron and steel industry has been bad. It appears possible, therefore, that owing to changes in organisation, or in machinery and plant, or in methods of manufacture, or for other reasons, the wages of those workpeople who are in employment may have risen by rather more, on the average, than would be suggested by the figures in the table. It is evident, from the diversity shown by those figures, that the increases in money wages in this industry since 1914 vary widely in different sections of the trade.

#### *Engineering and Shipbuilding.*

In the engineering industry the general advance over the rates current in August, 1914, for men on time work amounts to 17s. a week, except in certain districts where the men are paid at hourly rates, in which it is 17s. 10½d. In the shipbuilding industry the general advance on time rates ranges from 14s. or 14s. 10½d. a week in the case of skilled men, to 15s. or 16s. a week in the case of lower-paid labourers. In some cases, however, further advances have been granted to particular classes of men, both in the engineering and in the shipbuilding industries.

The following table shows the unweighted averages of the district time rates of wages of men in certain occupations in 16 of the principal engineering centres and nine of the principal shipbuilding centres at 4th August, 1914, and at 30th June, 1925, with the corresponding percentage increase over the rates current in 1914.

For semi-skilled classes the percentages range between those shown for skilled men and those for labourers.

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\* See Note on p. 74.



Industry and Occupation.	Average (unweighted) of recognised Weekly Time Rates in the principal centres at		Average Percentage Increase at 30th June, 1925, over level of 4th August, 1914.
	4th August, 1914.	30th June, 1925.	
<i>Engineering—</i>	<i>s. d.</i>	<i>s. d.</i>	Per cent.
Fitters and Turners ..	38 11	56 6	45
Ironmoulders .. ..	41 8	60 0	44
Patternmakers ..	42 1	60 11	45
Labourers .. ..	22 10	40 2	76
<i>Shipbuilding—</i>			
Shipwrights .. ..	41 4	55 7	35
Platers .. ..	40 4	54 7	35
Riveters .. ..	37 9	52 0	38
Ship Joiners .. ..	40 0	57 9	44
Labourers .. ..	22 10	38 5	68

The above figures relate to a full ordinary week (of 53 hours in some districts and 54 in others in 1914, and of 47 hours generally at June, 1925). The percentage increase in hourly rates thus ranges from about 65 per cent. for skilled workers to a little under 100 per cent. for labourers in the engineering trade, and from about 55 to 65 per cent. for skilled men to 90 per cent. for labourers in the shipbuilding trade.

In the case of piece-workers the general advance over the rates current in August, 1914, in the engineering industry amounts to 10 per cent. on basis piece rates, plus a flat rate advance of 10s. a week. In the shipbuilding industry the general advance is 10 per cent. on basis piece rates, plus a flat rate advance of 7s. a week; in addition, a portion of certain special advances, granted under the "Standard Ship Cycle" of awards and consequential extensions, is still paid to some classes of men. The information available is not sufficient to enable a reliable calculation to be made of the average percentage increase in the wages of piece-workers in these industries.

*Cotton Industry.*

The majority of the workpeople in the cotton industry are paid at piece rates of wages and comprehensive information as to earnings in 1914 and 1925 is not available. The general level of piece-work rates of wages is now 95 per cent. above the standard rates, compared with 5 per cent. above the standard in the summer of 1914. Part of this increase was granted in 1919, concurrently with a reduction in weekly working hours from 55½ to 48, in order to maintain weekly wages at the same level as before. If it be assumed that the rate of hourly output per head (as to which information is not available) remained the same after the change in hours as before the change, and if proportionate allowance is made for this reduction in working hours, the resulting increase in weekly full-time wages would appear to be generally about 61 per cent. In addition, special increases or allowances have been granted to certain classes of operatives, the effect of which would be to augment this percentage.

Returns obtained from a considerable number of firms, employing nearly 90,000 workpeople, showed average earnings in the week ended 23rd May, 1925, of about 37s. 6d., as compared with an average of slightly over 20s. earned by 113,000 workpeople for whom returns were obtained at the corresponding date in 1914, or in other words, an increase of 85 to 90 per cent. These figures, of course, cover only a small proportion of the workpeople in the industry; moreover, they do not relate to entirely identical firms at the two dates, and are not, therefore, strictly comparable. In view, however, of the considerable difference between the percentage increase which they indicate and that obtained from a comparison of the general level of piece-rates, it would appear probable that, owing either to changes in the proportions of adults and juveniles, or of males and females, or of skilled and unskilled workers employed, or to changes in other factors such as machinery, factory organisation, or methods of manufacture, the increase in weekly earnings of those workers who are in employment may be appreciably higher, on the average, than would be suggested by calculations based on the percentages added to standard list prices, referred to above.

*Wool Textile Industry.*

The rates of wages of woollen and worsted operatives in Yorkshire are calculated by the addition of a "cost of living wage" to basic rates. At the end of June, 1925, the weekly basic rates of the summer of 1914 had been increased generally by 10 per cent., and to the basic rates so increased was added a "cost of living wage" of 72½ per cent. for time workers and 63½ per cent. for piece-workers, making total increases over pre-war rates of approximately 80 to 90 per cent. for a full working week.\* In addition, special increases

\* Negotiations were proceeding on the question of revisions of the wage rates in June, 1925.

of varying amounts have been made in the rates of wages of particular sections of workpeople, which would tend to augment the percentages quoted. A general advance of over 15 per cent. on hourly and piece-rates was also granted in March, 1919, concurrently with a reduction in weekly hours from 55½ to 48, in order to maintain weekly wages at the same level as before. The average percentage increase in hourly rates, therefore, is correspondingly greater than that in weekly rates quoted above.

Returns received from firms employing nearly 45,000 workers showed average earnings of about 37s. a week in the week ended 23rd May, 1925, as compared with an average of 17s. 8d. in the corresponding week of 1914. As in the case of the cotton industry, these figures cover only a small proportion of the industry, and the firms represented are not wholly identical at the two dates. As, however, employment in May, 1925, was generally bad in this industry, the fact that the earnings shown for that month are, roughly, double those shown for May, 1914, suggests that, owing possibly to changes such as have been referred to above in dealing with the cotton industry, the increase of approximately 80 to 90 per cent. in weekly rates of wages indicated in the previous paragraph may not fully represent the average increase in wages between 1914 and 1925, in the industry as a whole, for those workpeople who are actually in employment.

### *Chemical Manufacture.*

Details are not available which would enable a comparison to be made of rates of wages generally in the heavy chemical industry between August, 1914, and June, 1925. In the case of day labourers, however, the average rate at the former date is understood to have been about 23s. a week of 53 to 54 hours, and at June, 1925, the rate recognised by the Chemical Employers' Federation and the trade unions concerned was 1s. per hour, plus 5d. a day, for a week of 47 hours, the increase in weekly rates being thus about 115 per cent. For process labourers, the pre-war rate was about 35s. a week of seven shifts; at June, 1925, the generally recognised rate was 1s. 1½d. per hour, plus 5d. per shift, but owing to the fact that the rate for week-end work, which is normally performed by such workers, has been increased to time-and-a-half, the weekly rate appears to average about 72s., or roughly double the pre-war rate.

### *Clothing.*

In the *manufacture of boots and shoes* the minimum time rate of wages for the principal classes of skilled workmen at the end of June, 1925, was 60s. a week. In the summer of 1914 it was 30s.

a week for the majority of the workers in most districts, though in a few districts it was 28s. or 29s., the increase thus being about 100 per cent. For men in the heel-building department and in the stock and shoe rooms, the minimum rate at June, 1925, was 57s. a week compared with a rate of 27s. a week adopted in 1914, with effect from the beginning of 1915, or an increase of 111 per cent. For women of 20 years or over, employed in certain operations in the closing and heel-building departments and the stock and shoe rooms, the minimum rate was 36s. a week in June, 1925, compared with 17s. or 18s. adopted in 1914, with effect from January, 1915, the increase being again about 100 per cent. It should be noted, however, that hours of labour have been reduced from 52½ per week in 1914 to 48 per week. Returns received from firms employing over 50,000 workpeople showed average earnings for the week ended 23rd May, 1925, of about 46s. a week. This figure compares with about 21s. a week at July, 1914, the increase being thus about 120 per cent. These figures are subject to the qualifications specified above in regard to similar figures for the cotton and wool textile industries.

In the *ready-made tailoring trade* the general minimum time rates fixed by Orders issued under the Trade Boards Act and in operation at August, 1914, were 6d. per hour for men and 3½d. per hour for women, these rates being paid in respect of a week of 50 hours. The corresponding minimum rates at June, 1925, are 11½d. and 7d. per hour respectively for a week of 48 hours. The percentage increases thus are slightly under 100 per cent. in the case of men and slightly over 100 per cent. in the case of women, irrespective of the effect of the change in hours.

**Rates of Wages in certain Exporting Industries as compared with certain "Sheltered" Industries.**

*Comparison of Percentage Increases, 1914-1925.*

In Table A (p. 88), particulars are given of the percentage increases in wage rates over the level of August, 1914, in certain exporting industries and in certain industries of the "sheltered" type for which information is available. Two sets of figures are given: one relating to the increases at the end of the year 1920, when wage rates generally were at or near their highest level, and the other relating to the end of June, 1925.

The particulars given, while based on a careful examination of such material as is available, are subject to the limitations explained at the beginning of this memorandum, and it is, also, especially important to note two points. First, in most of the exporting

industries dealt with, larger proportions of the skilled workpeople are piece-workers than in the "sheltered" industries, and it is doubtful whether the general advances in piece-rates, which are used in computing the percentage increase in wages since 1914, so fully represent the actual increases in wages as do the comparisons of time-work rates in the "sheltered" trades. Secondly, in many industries the percentage increase over the rates of wages prevailing in 1914 has been greater for unskilled than for skilled workmen, and comparisons as between one industry and another may, therefore, to some extent, be influenced by marked variations in the proportions of skilled and unskilled men employed in the two cases or in the extent to which skilled and unskilled workers are covered by the limited data available.

It will be seen that at the end of 1920 (when the general level of wages was at or near its highest point) there was much diversity in the amounts of increase over the level of 1914, both in the group of exporting industries and in the group of "sheltered" industries included in the table. Each of the two groups showed some increases substantially above the general average for all industries, some at or near the general average, and some substantially below the average. In June, 1925, the increases over pre-war rates of wages in the "sheltered" trades included in the table appear to be generally above the average for industry as a whole, whilst among the exporting industries dealt with there is considerable diversity, some of these industries showing increases well above the general average for industry as a whole, whilst others show increases substantially below the average for all industries. Whilst differences in the extent to which different industries have been affected by foreign competition have no doubt been partly responsible for such disparities, detailed consideration of the circumstances of individual industries suggests that a variety of special factors, apart from foreign competition, have had some bearing on the changes in the relative wage levels in different industries. Among these may be mentioned the varying effects on the prosperity of different industries of abnormal expansion during the war and subsequent dislocation resulting from shrinkage of war requirements, of increases in prices of imported raw materials and other costs of production, and of trade organisation. The differences in the strength of trade union organisation have also had a considerable influence in some cases.

In the following table the industries for which figures are given in Table A are grouped so as to distinguish those in which the percentage increases over pre-war rates at the end of December, 1920, and at the end of June, 1925, were (1) substantially above the general average increase for all industries, (2) not substantially different from the general average, and (3) substantially below the general average.

Table relating Increases in Certain Industries to Average Increase.

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• End of December, 1920. (Average increase in Wage Rates = 170 to 180 per cent.; Cost of living increase = 165 per cent.).		End of June, 1925. (Average increase in Wage Rates = About 75 per cent.; Cost of living increase = 73 per cent.).	
(1) Exporting group of Industries.	(2) Certain Industries of the "sheltered" type.	(1) Exporting group of Industries.	(2) Certain Industries of the "sheltered" type.
Pig Iron Manufacture Iron Mining Iron and Steel Puddling, Rolling, &c. Chemical Manufacture (Labourers) Engineering (Labourers) Shipbuilding (Labourers) Woollen and Worsted  Coal Mining Steel Smelting Cotton Industry Dock Labour  Boot and Shoe Manufacture Engineering (Skilled men) Shipbuilding (Skilled men)	(A). <i>Increases substantially above the general average.</i> Railway Service (lower paid grades) Building (Labourers)  (B). <i>Increases not substantially different from the general average.</i> Local Authority Labourers Printing and Bookbinding Baking. Road Transport  (C). <i>Increases substantially below the general average.</i> Building (Skilled men) Tramway Service Railway Service (Engine Drivers, &c.)	<i>above the general average.</i> Boot and Shoe Manufacture Chemical Manufacture (Labourers) Dock Labour Woollen and Worsted  Engineering (Labourers) Shipbuilding (Labourers) Cotton  Pig Iron Manufacture Iron and Steel Manufacture Engineering (Skilled men) Shipbuilding (Skilled men) Coal Mining Iron Mining	Printing and Bookbinding Railway Service Baking Road Transport Tramway Service Local Authority (Labourers) Building

WAGES.

*Comparison of Current Weekly Time Rates.*

As a result of the diversity in the amounts by which rates of wages were raised, in different industries and occupations, in the years 1915-1920, and in the amounts of the reductions which have taken effect since the end of the latter year, there is now a much wider variation in the wage rates paid to similar types of workpeople in this country than there was immediately before the war. In 1914, unskilled labourers in the larger towns mostly received about 20s. to 25s. a week and skilled men on time-work about 34s. to 42s. a week. There were, of course, some exceptions. For example, many railway porters were rated at less than 20s. a week, whilst builders' rates in the larger towns averaged about 27s. in a full summer week (though less in winter and in bad weather); and in many industries, men specially skilled, or working at piece rates, frequently earned more than 42s. At the present time the rates for unskilled labourers in larger towns range from less than 40s. a week, in some industries, up to 55s. or 60s. in others; whilst those of skilled men on time-work vary, in different industries, from 55s. or 60s. a week up to 80s. or more. In certain cases, the rates of wages of skilled artisans (e.g. in the shipbuilding and engineering industries) which in 1914 were considerably higher than those of any classes of unskilled labourers, are now no higher, and in some instances are even lower, than those of various groups of unskilled or only partially skilled men in some other industries in the same localities.

These variations are illustrated by Table B (p. 92), in which comparative figures are given, so far as available, of the weekly time-rates of wages current in June, 1925, for representative classes of skilled men and of unskilled labourers in the exporting industries and in the industries of the "sheltered" type specified in the Table.

In the absence of general wage statistics relating to any date since 1906, the figures given have been based on the time rates of wages fixed in collective agreements between employers and workpeople or, in the absence of such agreements, on trade union minimum rates, so far as available, and no corresponding figures can be given as regards the earnings of piece-workers, who form a large proportion of the skilled workpeople in many of the principal export trades. The figures, therefore, are not comprehensive. The following examples, however, taken from Table B, with figures added for July, 1914, and December, 1920, illustrate the wide disparities now existing in wage rates which were roughly similar in amount before the war. It should be noted that in all these cases the weekly working hours in respect of which the rates quoted were paid, were reduced between 1914 and 1920; the rates quoted for 1920 and 1925 are, therefore, for a shorter working week than in 1914.

Industry and Occupation.	Average of Recognised Weekly Time Rates of Wages in large towns at		
	July, 1914.	End of 1920.	End of June, 1925.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
<i>Skilled Men :—</i>			
Shipbuilding (nine districts)—			
Shipwrights .. .. .	41 4	91 3	55 7
Ship Joiners .. .. .	40 0	101 0	57 9
Engineering (16 districts)—			
Fitters and Turners ..	38 11	89 7	56 6
Building* (towns over 100,000)—			
Bricklayers .. .. .	40 7	100 10	73 6
Joiners .. .. .	39 11	100 6	73 5
Printing (26 towns)—			
Jobbing Compositors ..	35 8	93 3	73 9
<i>Labourers :—</i>			
Iron and Steel Manufacture (five districts)	23 4	73 2	39 7
Shipbuilding (nine districts) ..	22 10	70 5	38 5
Engineering (16 districts) ..	22 10	70 9	40 2
Building* (towns over 100,000)	27 0	87 8	55 7
Local Authorities—Non-Trading Services (28 towns)	26 9	74 8	53 9

\* The rates given for workers in the building industry are computed on the basis of the average of the summer and winter hours recognised at each of the dates given.

TABLE A.

*Approximate Percentage Increase in Time Rates of Wages at 31st December, 1920, and at 30th June, 1925, over the level of August, 1914.*

(Note.—The particulars given are subject to the qualifications to which reference is made on pp. 84 and 85 of this memorandum.)

Industry and Occupation.	Approximate Percentage Increase in Time Rates of Wages for a Full Week (unless otherwise specified) (a) at	
	31st December, 1920.	30th June, 1925.
<i>I.—Exporting Industries.</i>		
<i>Coal Mining.</i>		
(Average earnings per man-shift worked.) (b)		
Northumberland .. .. .	194	49
Durham .. .. .	192	60
Yorks and E. Midlands .. .. .	175	65
Lancs, N. Staffs and Cheshire ..	184	67
S. Wales and Mon. .. .. .	190	58
Scotland .. .. .	187	52

For notes see end of table, p. 91.



RATES OF WAGES, 1914-1925.

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TABLE A—continued.

Industry and Occupation.	Approximate Percentage Increase in Time Rates of Wages for a Full Week (unless otherwise specified) (a) at	
	31st December, 1920.	30th June, 1925.
<i>I.—Exporting Industries—continued.</i>		
<i>Iron Mining.</i>		
Cleveland .. .. .	200	30 to 40
Cumberland .. .. .	200 to 300	35 to 43
<i>Iron and Steel Smelting, Rolling, &amp;c. (c).</i> (Comparison of percentage additions to basis rates.)		
N. of England (Iron Puddling and Iron and Steel Rolling)	241 (c)	62 (c) (d)
Midlands (Iron Puddling and Iron and Steel Rolling)	284 (c)	65 (c)
Scotland (Iron Puddling and Rolling)	242 (c)	55 (c)
S. Wales and Mon. (Iron and Steel Rolling)	(Varied)	21 (c)
Various Districts (Steel Smelting)	159 to 206 (c)	26 to 33 (c) (d)
Labourers in Steel Smelting Shops and at Iron and Steel Rolling Mills, in some of the principal Districts in England and Wales.	180 to 215	56 to 75
<i>Pig Iron Manufacture.</i> (Comparison of percentage additions to basis rates, allowing for increases in such basis rates.)		
Cleveland and Durham .. .. .	225 to 300	40 to 85
Cumberland .. .. .	300 to 350	50 to 85
S. Wales and Mon. .. .. .	124 (e)	21
<i>Engineering.</i> (Average of recognized district time rates of wages in 16 centres.)		
Fitters and Turners .. .. .	130	45
Ironmoulders .. .. .	123	44
Patternmakers .. .. .	123	45
Labourers .. .. .	210	76
<i>Shipbuilding.</i> (Average of recognized time rates in 9 principal centres.)		
Shipwrights .. .. .	121	35
Platers .. .. .	123	35
Riveters .. .. .	131	38
Ship Joiners .. .. .	152	44
Labourers .. .. .	208	68
<i>Cotton Industry.</i> (General increase on list prices modified to allow for the effect of reductions in hours of labour.)		
	160 (f)	61 (f)

For notes see end of table, p. 91.

TABLE A—continued.

Industry and Occupation.	Approximate Percentage Increase in Time Rates of Wages for a Full Week (unless otherwise specified) (a) at	
	31st December, 1920.	30th June, 1925.
<i>I.—Exporting Industries—continued.</i>		
<i>Wool Textile Industry.</i>		
(General increases, excluding increases granted in compensation for reduced hours of labour.)		
Time-workers .. .. .	216 (g)	90 (g)
Piece-workers .. .. .	181 to 190 (g)	80 (g)
<i>Chemical Manufacture.</i>		
(General minimum time rates recognized by the Employers' Federation and the Trade Unions.)		
Day Labourers .. .. .	224	115
Shift (Process) Labourers .. .. .	207	106
<i>Boot and Shoe Manufacture.</i>		
(General minimum time rates for manufacturing processes agreed upon by the employers' and workers' organizations.)		
Men—Heelbuilding and Stock and Shoe Rooms	127	111
Men—Other Departments .. .. .	141	100
Women .. .. .	122 to 135	100 to 112
<i>Dock Labour.</i>		
(Rates recognized at principal ports.)		
General Cargo-workers .. .. .	169	103
	(based on average of daily rates)	(based on average of daily rates)
<i>II.—Industries of the "Sheltered" type.</i>		
<i>Building.</i>		
(Average of recognized time rates in 40 large towns.)		
Bricklayers .. .. .	149	81
Masons .. .. .	155	86
Carpenters and Joiners .. .. .	152	84
Plumbers .. .. .	158	85
Plasterers .. .. .	151	84
Painters .. .. .	176	101
Labourers .. .. .	225	106
<i>Railway Services.</i>		
Engine-drivers (h) .. .. .	126 to 130	85 to 95
Guards .. .. .	166 to 227	110 to 132
Ticket Collectors .. .. .	178 to 220	115 to 135
Goods Porters .. .. .	215 to 247	126 to 153
Passenger Porters (Class 2) .. .. .	245 to 272	145 to 161

For notes see end of table, p. 91.

TABLE A—continued.

Industry and Occupation.	Approximate Percentage Increase in Time Rates of Wages for a Full Week (unless otherwise specified) (a) at	
	31st December, 1920.	30th June, 1925.
II.—Industries of the "Sheltered" type—continued.		
<i>Road Transport.</i>		
(Average of recognized rates in 12 towns.)		
One-Horse Driver .. .. .	167	108
<i>Tramways.</i>		
(Average of recognized rates in 53 towns.)		
Drivers .. .. .	140	94
Conductors .. .. .	157	106
<i>Printing and Bookbinding.</i>		
(Average of recognized rates in 26 towns.)		
Hand Compositors on Book or Jobbing Work	162	107
Bookbinders and Machine-rulers..	176	117
<i>Baking.</i>		
(Average of recognized rates in 13 large towns.)		
Fore Hands .. .. .	135	88
Table Hands .. .. .	170	112
<i>Local Authorities (Non-Trading Services).</i>		
(Average of rates in 36 large towns.)		
Labourers .. .. .	181	101

(a) In most of the industries referred to, the normal weekly hours of labour were less at December, 1920, and June, 1925, than at August, 1914. The percentage increases in *hourly* rates of wages at these dates, therefore, were generally higher than the figures quoted.

(b) The figures quoted are based on the average *earnings* per man shift worked at June, 1914, December, 1920, and at June, 1925. The information available is insufficient to enable a satisfactory calculation to be made as to the percentage increase in *rates* of wages.

(c) The full amount of the increases quoted applies in the case of full-time weekly wages only to the lower-paid men. The increase over pre-war weekly full-time wages for the higher-paid men is generally less (see note (f) p. 79).

(d) Special bonuses were being paid at June, 1925, to certain of the lower-paid workers. The information available is insufficient to enable the effect of such bonuses to be expressed as a percentage on 1914 rates, but the total percentage increase on the 1914 rates for such workers is in excess of the figures quoted.

(e) This applies to higher-paid men only. For lower-paid men the increase was greater.

(f) In some occupations the increase was greater.

(g) In the case of higher-paid workers the increases were not so great, but for some occupations in certain districts the increases over pre-war rates were greater than those quoted.

(h) The increases shown do not take into account variations in the mileage payments made to drivers of long-distance trains.

TABLE B.  
*Weekly Time Rates of Wages at 30th June, 1925, of various Classes of Skilled Workmen and Unskilled Labourers respectively.*

Exporting group of Industries.	Average Full-time Weekly Rates of Wages.	Certain Industries of the "sheltered" type.	Average Full-time Weekly Rates of Wages.
<b>I.—Skilled Workmen.</b>			
Coal Mining .. ..	*	Building (towns over 100,000)—	
Iron and Steel .. ..	*	Bricklayers .. ..	73s. 6d.
Engineering (16 districts)—		Masons .. ..	73s. 8d.
Ironmoulders .. ..	60s. 0d.	Plumbers .. ..	73s. 7d.
Fitters and Turners	56s. 6d.	Carpenters and Joiners	73s. 5d.
Shipbuilding (9 districts)—		Painters .. ..	73s. 0d.
Shipwrights .. ..	55s. 7d.	Railway Service (General)—	
Ship Joiners .. ..	57s. 9d.	Engine Drivers ..	72s. to 90s. †
Cotton .. ..	*	Guards .. ..	51s. to 65s.
Wool Textile .. ..	*	Printing, &c. (26 towns)—	
Chemical .. ..	†	Jobbing Composi- tors .. ..	73s. 9d.
Boot and Shoe (principal centres)	60s. 0d.	Bookbinders ..	73s. 4d.
		Baking—	
		Fore hands (13 towns)	70s. 8d.
		Table hands (26 towns)	64s. 9d.
		Local Authorities (Non - Trading Services)	†
<b>II.—Labourers.</b>			
Coal Mining (10 districts)	7s. 7½d. per shift	Building (towns over 100,000)	55s. 7d.
Iron and Steel (5 districts)	39s. 7d.	Railway Services (Industrial districts)—	
Engineering (16 districts)	40s. 2d.	Porters, Class 2 ..	47s. & 49s.
Shipbuilding (9 districts)	38s. 5d.	Goods Porters ..	51s. & 52s.
Cotton .. ..	†	Permanent Way Labourers	51s. to 54s.
Wool Textile (Yorkshire)	52s. 8d.	Printing, &c. (26 towns)	55s. 0d. §
Chemical (principal centres)	49s. 6d.	Baking .. ..	†
Boot and Shoe .. ..	†	Local Authorities (Non - Trading Services) (28 towns)	53s. 9d.

\* Largely piece-work: data not available.

† Available information insufficient for the computation of a representative average.

‡ Mileage payments are made, in addition, to drivers of long distance trains.

§ General assistants employed mainly as machine feeders; in some cases lower rates are paid to warehouse porters, &c.

|| The higher rates apply to London and the lower rates to industrial areas outside London.

**Comparison of Minimum Rates fixed by Trade Boards, 1914 and 1925.**

The following table shows for June, 1914, and June, 1925, the general minimum time-rates applicable to the lowest paid grade of adult workers, both male and female, fixed by each of the four Trade Boards which had rates in operation in June, 1914.\* The table also shows the percentage increase of the minimum rate in June, 1925, over that of June, 1914. It will at once be noticed that the increase is heavy compared with the estimate made earlier in this memorandum of the average percentage increase in weekly full-time wages, and also when compared with the increase in the majority of industries which have been dealt with in the previous paragraphs. It should, however, be borne in mind that the Trade Boards in question were the first to be set up under the Act of 1909, because investigation had shown that the trades concerned were specially subject to the evils of sweating. Accordingly, the percentage increase in the general minimum time rates includes not only the general increase which, as has been shown above, has taken place in the rates of wages paid practically throughout industry, but also the result of the effort made under the Acts to effect a progressive improvement in the wage conditions of these particular trades. This effort has been specially marked in the chain trade.

*General Minimum Time Rate applicable to the lowest paid grade of Adult Workers.*

(N B.—Male workers at 21 years of age; female at 18 years of age.

Trade.	June, 1914.		June, 1925.		Percentage Increase.	
	Males.	Females.	Males.	Females.	Males.	Females.
Tailoring ..	per hr. 6d.	per hr. 3½d.	per hr. R.M. † 11½d.	per hr. 7d.	% 96	% 115
Paper Box ..	6d.	3d.	R.B. 1s.	7½d.	100	113
Chain .. ..	5½d.	2½d.	1s. 0½d.	7½d.	112	154
Lace Finishing..	—	2½d.	1s. 4½d.	6½d.	195	170
			—	6½d.	—	127

\* See pp. 287 and 470-1.

† R.M. denotes Ready Made and Wholesale Bespoke Tailoring rates. The rates for males in this case are at 22 years of age. R.B. denotes Retail Bespoke Tailoring rates.

## WAGES AND THE COST OF LIVING

[Furnished by the Ministry of Labour.]

The previous memorandum traces, as accurately as the available official information allows, the changes which have taken place in rates of money wages since the summer of 1914, and this memorandum deals with the changes during the same period in retail prices and in what is commonly known as the cost of living.

**Official Statistics of the Cost of Living.**

No official statistics of the general cost of living were collected before 1914, but a Weighted Index Number in respect of retail prices of food in London was issued by the Board of Trade. This showed a fall from 1892 to 1896 followed by a steady rise up to and including 1913. There was a slight decline in the early part of 1914, and just before the war the figures indicated that the cost of food in London was approximately 7 per cent. higher in 1914 than in 1892.

It was not until 1915 that the present system of compilation was inaugurated. This is designed to produce an index figure showing the average percentage increase in the cost of maintaining unchanged the pre-war (i.e., July, 1914) standard of living of working-class families, entirely irrespective of whether that standard was adequate or not. The figure is based upon returns received regularly by the Ministry of Labour from the various parts of the country, in respect of the cost of (i) Food, (ii) Rent, (iii) Clothing, (iv) Fuel and Light, and (v) certain other articles of domestic necessity (i.e. soap, soda, domestic ironmongery, brushware and pottery, tobacco, fares and newspapers). These particulars are related to information which is available as to corresponding prices in 1914.

The average increases in the cost of all the items are combined in accordance with their relative proportions in the average pre-war working class family expenditure. A list of articles of food and the proportions in which they were consumed had been worked out some years before the war by examining the budgets of some two thousand working class families from areas all over the country. This list was extended during the war to include other articles than food and brought up-to-date for use as a basis of the present index number. The resultant figure is issued monthly by the Ministry of Labour as the general average increase for the month.\* The results for 1st July, 1925, may be given as an

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\* A detailed account of the method of compiling these statistics was given in the "Labour Gazette" of February, 1921, and a shorter statement in that of July, 1923.

example. The following table gives the details as regards food for that date, and shows the articles taken into account :—

<i>Articles.</i>	<i>Average Percentage Increase as compared with July, 1914.</i>
Beef, British—	
Ribs .. .. .	80
Thin Flank .. .. .	51
Beef, Chilled or Frozen—	
Ribs .. .. .	45
Thin Flank .. .. .	16
Mutton, British—	
Legs .. .. .	97
Breast .. .. .	77
Mutton, Frozen—	
Legs .. .. .	85
Breast .. .. .	33
Bacon .. .. .	65
Fish .. .. .	113
Flour .. .. .	80
Bread .. .. .	81
Tea .. .. .	59
Sugar .. .. .	80
Milk .. .. .	59
Butter—	
Fresh .. .. .	63
Salt .. .. .	61
Cheese .. .. .	58
Margarine .. .. .	4
Eggs (fresh) .. .. .	45
Potatoes .. .. .	126
Weighted Percentage Increase of above articles	67

The results under the various main headings for the same date were :—

Food (see previous table) .. .. .	67
Rent .. .. .	47
Clothing .. .. .	130
Fuel and Light .. .. .	80
Other Items .. .. .	80
Weighted General Average Increase .. .. .	73

If allowance is made for the changes in taxation since July, 1914, on the commodities included in these statistics, the average increase is about 2 per cent. less.

It should be borne in mind that this figure is calculated solely upon the basis of *retail* prices and it should, consequently, not be confused with the index number of *wholesale* prices issued monthly by the Board of Trade.\* The phrase "cost of living" is used frequently below in this memorandum and should be read as referring to the index figure reached by the method just described.

\* See p. 432.

## Changes in the Cost of Living.

The following table shows the course since 1919 of the percentage increase figures for the five headings and for all items, if the mean of each year be taken :—

Year.	Food.	Rent.	Clothing.	Fuel and Light.	Other Items.	All Items.
1919 .. ..	119	5	261	93	93	115
1920 .. ..	156	21	316	112	121	149
1921 .. ..	129½	48	203	142½	112	126
1922 .. ..	76	53	139	102	95	83
1923 .. ..	69	48	122½	84	84	74
1924 .. ..	70	47	125	86	80	78
1925 (1st January to 1st July)	71	47	130	84	80	76

The statistics show that during the war the percentage increase figure for all items (nil = July, 1914) rose from between 10 and 15 per cent. in January, 1915, to 120 per cent. at the end of 1918. Its subsequent course is shown in the following table :—

Year.	Highest.	Lowest.	Mean.
1919 .. .. .	(Dec.) 125	(June) 105	115
1920 .. .. .	(Nov.) 176	(Jan.) 125	149
1921 .. .. .	(Jan.) 165	(Dec.) 99	126
1922 .. .. .	(Jan.) 92	(Oct.) 78	83
1923 .. .. .	(Jan.) 78	(June) 69	74
1924 .. .. .	(Dec.) 81	(June) 69	75
1925 (1st Jan.—1st July) ..	(Jan.) 80	(June) 72	76

NOTE.—The figures relate to the first day of the month stated.

In short, the cost of living, as shown by these figures, more than doubled during the war, and the rise continued to the peak figure of 176 per cent. increase in November, 1920. There was a steady fall from then until June, 1923, when the figure was 69 per cent. Since then it has remained within the range 69 to 81 with a mean of about 75.

## The Movement in the Cost of Living and in Full-time Rates of Wages.

For purposes of comparison the following table gives the cost of living figure for the end of each quarter from March, 1920, to June, 1925, together with the estimated increase, over the level of July, 1914, in weekly full-time rates of wages at the same dates.



Date. (For wages, end of month stated. For cost of living, generally the first day of the succeeding month.)	Average Increase, over the level of July, 1914, in	
	Cost of Living.	Weekly Full-Time Rates of Wages.
	%	%
1920.—March .. .. .	132	130-135
June .. .. .	152	150-155
September .. .. .	164	160-165
December .. .. .	165	170-180
1921.—March .. .. .	133	160-170
June .. .. .	119	145-155
September .. .. .	110	130-135
December .. .. .	92	110-115
1922.—March .. .. .	82	100-105
June .. .. .	84	85-90
September .. .. .	78	75-80
December .. .. .	78	70-75
1923.—March .. .. .	74	70
June .. .. .	69	65-70
September .. .. .	75	70 (nearly)
December .. .. .	77	65-70
1924.—March .. .. .	73	70 (nearly)
June .. .. .	70	70
September .. .. .	76	70-75
December .. .. .	80	70-75
1925.—March .. .. .	75	75
June .. .. .	73	75

In the first ten months of 1920, while the rise in rates of wages and in the cost of living, which had continued, almost without interruption, since 1914, was still in progress, the average percentage increase in weekly full-time rates of wages, as indicated by these two series of figures, was roughly the same as that in cost of living. In November, 1920, however, the cost of living began to fall, whilst rates of wages continued to rise until the end of the year, and at the beginning of 1921, "real" wages for a full working week were slightly higher, on average, than in July, 1914. Early in 1921, rates of wages began to decline, but the fall in cost of living continued and "real" wages for a full week remained higher, on average, than in July, 1914, until the summer of 1922, when the downward movement in wage rates overtook that in cost of living. From that date until the end of 1924 the average percentage increase in wage rates, as indicated by these figures, was generally a little below the average increase in cost of living, although the wages figure for the end of June, 1925, was slightly higher than that relating to cost of living. In view of the qualifications (described at the beginning of the previous memorandum) to which the figures relating to wage rates are subject, no great significance can be attached to the relatively small differences shown during the past three years. The figures suggest, in fact, that the average

level of "real" wages for a full-week is not at present substantially different from the pre-war level, and that if allowance is made for the widespread unemployment and short time now prevailing in many industries, the average level of "real" weekly earnings must be lower than it was immediately before the war.

In view, however, of the great diversities in the increases in money rates of wages since 1914 among different industries and occupations, it will be realised that there are wide variations in the circumstances of different groups of workers, the "real" wages of some groups being much lower than in 1914, whilst those of others are considerably higher.

#### COMPARISON OF "REAL" WAGES IN LONDON AND CERTAIN CITIES OVERSEAS.

*[Furnished by the Ministry of Labour.]*

In the accompanying Tables comparative figures are given of:—

I. The purchasing power at 1st June, 1924, in terms of articles of food of general consumption in the United Kingdom, of one hour's wage, at time rates, of certain classes of workmen in London and various cities overseas;

II. Ditto at 1st July, 1925, in terms of articles of food in general consumption in the cities dealt with;

III. The changes between 1914 and April, 1925, in the levels of "real" hourly time rates of wages of the same classes of workmen in the same cities.

It should be borne in mind, in connexion with any inferences which may be suggested by these figures, that the official information as to wages and the cost of living (using this term in a general sense) in the different countries is not sufficiently comprehensive to provide anything like a complete answer to the two questions: (1) how does the present purchasing power of wages in countries overseas compare with that of British wages? and (2) what is the change, since 1914, in the level of real wages in this country and in countries overseas?

In the first place, the information available as to wages for the whole group of cities covered by the tables relates only to a small group of occupations, from which many important classes of workers are excluded; and, in view of the wide diversities in rates of wages at the present time, it cannot safely be assumed that wages in the restricted number of occupations for which particulars are given are representative of the general level of wages in industry as a whole, or that wages in the cities taken for purposes of comparison are representative of wages generally in the countries in which those cities are situated. Moreover, actual earnings, including the effect of overtime, short time, piece-work, etc., may differ considerably—and to a varying extent in different countries—from the standard or minimum time rates of wages on which the calculations are generally based.

Not only does the basis on which the statistics of food prices and cost of living are collected and used vary in different countries, and so affect to some extent the validity of the statistics, but, in addition, there is a fundamental difficulty in making comparisons of real wages as between one country and another, in that the physiological needs of the working-class populations differ considerably in different countries. For example, the dietary of a working-class family in London is markedly different from that of a working-class family in Rome or Madrid. Thus, in Table I, while the comparisons have been based on the British working-class dietary (i.e. the articles of food and proportions used for calculating the British cost of living index figure),\* and so tend to show how a London workman would be affected if he were paid the wages prevailing in an overseas city *whilst maintaining the London dietary*, the results obtained might be materially different in some cases if the dietary of another country had been used as the basis of the comparison. Some indication of the extent of the differences which may be expected as the result of the use of different dietaries is afforded by Table II, in which the results of comparisons made by the International Labour Office on the basis of a series of varying dietaries are shown.

In addition, it should be noted that the calculations are based on hourly rates of wages, and that as the weekly hours of labour vary in different cases, calculations based on weekly earnings might show somewhat different results.

For these reasons the figures in Tables I and II are given with reserve, and should not be regarded as more than a rough attempt to provide some indication of the relative levels of "real" hourly time rates of wages, on the basis of such scanty material as is available. It is especially undesirable that significance should be attached to relatively small differences between one figure and another.

These remarks apply with especial force to the index numbers given in Table III. Each of these figures, it is true, shows the change in purchasing power of the hourly rate of wage in each of the occupations and cities included in the table, as measured by the index number of the average change in the cost of living in each of the countries concerned, and these figures, as has been explained above, vary as to basis; but it would be unsafe to assume that index numbers, designed to indicate the average change in cost of living over the whole of a given country, are strictly applicable to a particular grade of workman in the capital city of that country, or that the averages given at the foot of the table are representative of the change in the level of "real" wages in industry as a whole in each of the capital cities. The most that can be said of these figures is that they give some rough indication of the changes since 1914 in the level of "real" wages.

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\* See pp. 94-5.

I.—Purchasing Power of Wages in Certain Capital Cities (Based on U.K. Dietary).

Table of Index Numbers (computed by the Ministry of Labour) comparing for certain Capital Cities the Purchasing Power at 1st June, 1924,\* of One Hour's Wage (at the Recognised Time Rates for certain Occupations) in terms of articles of Food of general consumption in the United Kingdom.

N.B.—The articles of food and the proportions in which they enter into the index number are those used for calculating the Ministry of Labour Index Number of the Cost of Living in Great Britain. (See p. 94).

Occupation.	London.	Amsterdam.	Berlin.	Brussels.	Copenhagen.	Madrid.	New York.	Oslo.	Ottawa.	Paris.	Prague.	Rome.	Stockholm.	Vienna.	Warsaw.
<i>Building Trades :</i>															
<i>Skilled—</i>															
Mason .. .. .	100	86	70	54	159	57	—	70	258	61	69	43	106	49	95
Bricklayer .. .. .	100	86	70	54	159	57	299	70	258	61	—	32	106	49	95
Carpenter .. .. .	100	86	70	58	152	72	224	67	194	63	76	43	106	52	92
Joiner .. .. .	100	86	70	59	117	61	170	67	194	63	—	47	106	44	—
Plumber .. .. .	100	91	69	51	125	61	249	67	207	61	—	47	83	—	—
Painter (general) .. .. .	100	85	74	48	134	62	236	74	177	65	93	43	105	55	100
<i>Unskilled—</i>															
Labourer (general) .. .. .	100	93	79	45	—	53	216	88	138	61	74	26	128	53	77
<i>Engineering Trades :</i>															
<i>Skilled—</i>															
Fitter .. .. .	100	92	56	66	143	73	212	85	200	74	111	57	75	50	85
Ironmoulder (hand) .. .. .	100	80	—	66	161	73	201	85	196	79	98	60	75	—	85
Patternmaker .. .. .	100	86	53	88	—	68	227	79	217	83	117	49	70	50	79
Turner .. .. .	100	92	56	67	143	73	—	85	200	77	91	53	75	54	85

<i>Unskilled—</i>																	
Labourer .. .. .	100	95	64	68	158	77	188	111	187	73	89	37	90	49	74		
<i>Furniture Trades :</i>																	
<i>Skilled—</i>																	
Cabinetmaker .. .. .	100	71	84	56	97	65	—	67	135	63	74	47	76	39	—		
<i>Printing and Bookbinding Trades :</i>																	
<i>Skilled—</i>																	
Compositor (Book and Job) Hand	100	72	52	52	110	63	204	66	178	59	—	44	72	40	140		
Ditto (Machine) .. .. .	100	75	56	51	102	66	189	61	165	—	79	37	74	43	182		
Machine Minder .. .. .	100	72	—	53	—	77	—	66	178	63	—	—	72	40	140		
Bookbinder .. .. .	100	80	51	56	116	60	170	77	191	68	71	38	73	38	156		
Average, 1st June, 1924* .. .. .	100	84	65	58	134†	66	214	76	193	67	87	44	88	47	106		
Average, Jan.—June, 1924‡ .. .. .	100	91	55	60	138	—	224	82	195	80	90	—	89	47	93		
Average, July, 1914 .. .. .	100	96	83	61	108	42	187	77	181	73	84	53	74	69	93		

\* Exceptions to this are New York, Prague and Madrid, in which cases the prices and wages relate to 15th May, 1st May and 1st March respectively, and these prices and wages have been related to the London prices and wages of the corresponding dates.

† The only official wage statistics procurable for Copenhagen relate to average *earnings*, which have been used in the computation of the index numbers for that City. These, therefore, are not strictly comparable with the index numbers for the other capital cities.

‡ Based on the mean of six monthly index numbers, where these are available: Paris gives the mean of four monthly and Copenhagen the mean of three quarterly indices.

II.—*Purchasing Power of Wages at 1st July, 1925, in Certain Capital Cities Compared with London (Based on Diets of Various Countries).*

N.B.—A series of computations of comparative "real" wages<sup>\*</sup> is made by the International Labour Office on the basis of returns supplied by official statistical departments. In the compilation of these index numbers an attempt has been made to measure the purchasing power of wages in each city, not only by the working-class standard of food consumption of the country in which that city is situated, but also by standards of working-class food consumption appropriate to each of the other cities represented; and finally by a sort of international standard of working-class food consumption. (Columns 7 and 8.) The following series for 1st July, 1925, are taken from the International Labour Review, October, 1925.

Average for all Occupations covered by the Inquiry. (London = 100.)\*

City.	Index Numbers based on Quantities of each kind of Food consumed in Working-Class Households in						General Average Index Nos. (based on food only).	General Average Index Nos. (with allowance for rent).
	Belgium and France.	Central European Countries.	Great Britain.	Southern European Countries.	Scandinavian Countries and Netherlands.	Overseas Countries (Canada and U.S.A.).		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
London .. ..	100	100	100	100	100	100	100	100
Amsterdam ..	84	86	78	83	88	84	84	84
Berlin .. ..	58	74	58	59	69	63	64	63
Brussels .. .	56	56	53	53	58	54	55	59
Copenhagen† ..	84	105	87	87	108	94	94	97
Lisbon‡ .. ..	34	34	31	32	26	33	32	—
Madrid .. ..	56	59	47	53	54	52	54	—
Milan‡ .. ..	45	49	43	47	49	46	47	50
Oslo .. .. .	75	82	75	77	91	80	80	82
Ottawa .. ..	157	167	162	154	173	174	165	148
Paris§ .. ..	62	76	61	63	69	63	66	67
Philadelphia ..	177	172	182	178	195	192	183	183
Prague .. ..	47	51	46	47	51	48	48	52
Rome‡ .. ..	45	46	43	47	46	46	46	49
Stockholm ..	69	74	72	71	88	79	76	74
Vienna .. ..	37	48	40	39	48	44	43	47
Warsaw .. ..	46	55	41	47	55	51	49	51

\* Although London is taken arbitrarily as base (= 100), the ratios would be the same whatever city were chosen as base.

† Based on hourly earnings, including those of piece-workers as well as of time-workers.

‡ The figures for Lisbon, as well as those for Rome and Milan, are relatively low. This may be accounted for in part by the differences in the items of food consumption in the Southern countries from those ordinarily consumed in most of the other countries included in the Table. The budgets used in the comparisons do not make adequate allowance for the consumption of vegetable foods in the Southern European countries.

§ Figures relate to 1st April, 1925.

III.—Change since 1914 in the Levels of "Real" Wages in London and certain cities overseas.

N.B.—The numbers in the Table have been obtained by dividing the index-number of the rise in money wages (hourly time rate) between July, 1914, and April, 1925, by the official index number issued by the country concerned of the rise in the cost of living in the same period. (The level of the "real" wage in July, 1914, is taken as 100 for each occupation and capital city.)

Occupation.	London.	Amsterdam.	Berlin.	Brussels.	Copenhagen.	Madrid.*	New York.†	Oslo.	Ottawa.	Paris.*	Prague.	Rome.‡	Stockholm.	Vienna.	Warsaw.
<i>Building Trades :</i>															
<i>Skilled—</i>															
Mason .. .. .	107	162	97	150	142	118	—	104	124	109	107	97	135	178	90
Bricklayer .. .. .	107	162	94	150	142	118	116	104	124	109	—	107	135	178	90
Carpenter .. .. .	107	162	98	167	128	198	135	116	120	104	99	97	159	166	133
Joiner .. .. .	107	178	141	172	124	143	104	116	120	107	—	100	146	109	—
Plumber .. .. .	102	177	140	151	—	146	129	118	124	101	—	82	126	—	—
Painter (general) .. .. .	120	167	112	137	126	127	152	116	134	99	128	122	—	149	—
<i>Unskilled—</i>															
Labourer (general) .. .. .	117	197	113	136	—	123	151	120	91	130	101	122	164	—	133
<i>Engineering Trades :</i>															
<i>Skilled—</i>															
Fitter .. .. .	99	194	—	117	140	102	125	136	123	91	100	83	118	—	74
Ironmoulder (hand) .. .. .	92	168	—	125	140	118	132	136	121	99	109	107	118	—	74
Patternmaker .. .. .	91	194	—	123	—	110	111	136	113	108	—	—	118	—	74
Turner .. .. .	99	194	—	125	—	118	—	136	123	128	92	87	118	133	74

For notes see end of table (p. 104.)

III.—Change since 1914 in the Levels of "Real" Wages in London and certain cities overseas—continued.

Occupation.	London.	Amsterdam.	Berlin.	Brussels.	Copenhagen.	Madrid.*	New York.†	Oslo.	Ottawa.	Paris.*	Prague.	Rome.‡	Stockholm.	Vienna.	Warsaw.
<i>Engineering Trades :—continued.</i>															
<i>Unskilled—</i>															
Labourer .. .. .	115	192	84	137	—	177	93	147	—	118	94	98	121	142	91
<i>Furniture Trades :</i>															
<i>Skilled—</i>															
Cabinetmaker .. .. .	107	151	—	160	130	180	—	138	—	137	120	97	117	103	—
<i>Printing and Bookbinding Trades :</i>															
<i>Skilled—</i>															
Compositor (Book and Job) Hand	135	180	91	106	119	141	123	104	127	180	—	66	104	121	200
Ditto Machine .. .. .	122	176	95	113	119	93	117	130	127	—	114	103	92	99	227
Machine Minder .. .. .	135	174	—	106	—	108	—	118	113	174	—	—	104	71	200
Bookbinder .. .. .	133	180	—	120	180	158	111	117	129	184	106	126	124	104	200
Average .. .. .	111	177	107	135	135	134	123	123	121	124	106	100	125	129	128

\* The wages and cost of living index numbers used for Madrid and Paris relate to March, 1925.

† The wages and cost of living index number used for New York relate to April, 1925, and December, 1924, respectively.

‡ No cost of living index number is now published for this city and in the computation of the index numbers for Rome the index number of the rise in the cost of living in Milan has been used.



## SYSTEMS OF WAGE PAYMENT.

[Furnished by the Ministry of Labour and, as regards coal-mining, by the Mines Department.]

## Relative prevalence of Payment by Time and Payment by Results.

Comprehensive statistics showing the relative prevalence of different methods of wage payments were collected in 1906, when a general enquiry into earnings and hours of labour in the United Kingdom was undertaken by the Board of Trade.\* In connection with that enquiry employers were asked to give particulars of the wages paid to their workpeople and to state the method of payment in each case; and statistics were compiled and published, showing, for the great majority of the principal industries, the proportions of workpeople paid respectively by time-work and by piece-work or other systems of payment by results.

Approximately three-fourths of the workpeople covered by the returns received were found to be paid at time-rates of wages, and one-fourth at piece-work rates or on other systems of payment by results.† The figures for the principal groups of industries dealt with were as shown below:—

## Proportions of Time-workers and Piece-workers, etc., in 1906.†

Group of Industries.	Men.		Lads and Boys (under 20 years).		Women.		Girls (under 18 years).		All Workpeople.	
	Time.	Piece, &c.	Time.	Piece, &c.	Time.	Piece, &c.	Time.	Piece, &c.	Time.	Piece, &c.
Building and Wood-working	95	5	98	2	74	26	84	16	95	5
Engineering, Ship-building and Other Metal	67	33	73	27	48	52	70	30	67	33
Textiles .. ..	62	38	87	13	25	75	64	36	49	51
Clothing .. ..	63	37	94	6	56	44	74	26	63	37
Railways .. ..	98	2	98	2	62	38	65	35	98	2
Paper, Printing, &c.	88	12	97	3	51	49	77	23	79	21
Pottery, Brick, Glass, Chemicals, &c.	67	33	66	34	51	49	59	41	65	35
Food, Drink, &c., Tobacco	95	5	94	6	55	45	66	34	83	17
Public Utility Services	96	4	100	—	99	1	98	2	96	4
Mining and Quarrying (other than Coal Mining)‡	60	40	87	13	—	—	—	—	62	38
Miscellaneous Other Trades§	84	16	91	9	52	48	71	29	81	19

\* See Note on p. 74.

† There were wide variations in the proportions of returns received from different industries, and the proportion of time and piece-workers shown may therefore have been different from those which would have been obtained if complete information for all industries had been available. ‡ See p. 110.

§ Excluding agriculture, in which payment was generally by time, though in some districts piece-work payments were made in many cases for certain operations (e.g. haymaking, harvesting, hoeing, and lifting of potatoes, turnips, &c.).

It will be seen from these figures that, while time-rates of wages predominated, there were considerable differences in the proportions of workpeople paid by time-work and by results respectively in different groups of trades. In the building trades and in railway service almost all the workpeople were paid at time-rates, whereas in the textile group slightly over one-half of the workers were paid at piece-rates. It is noticeable that in each group of industries, except the public utility services, the proportions paid by results were considerably higher in the case of women and girls than in the case of men and boys.

In considering the preponderance of time-work indicated by the figures given in the foregoing table, it is necessary to bear in mind that unskilled general labourers, maintenance men, assistants to skilled men, and large numbers of other auxiliary workers are generally paid at time-rates of wages, and that the proportions of piece-workers would generally be considerably higher among the workers engaged in the actual processes of manufacture than the proportions among all workers, to which the percentages given in the table relate.

Among the more important individual industries for which particulars were obtained in 1906, those with the highest proportions of time-workers (over 80 per cent.) and piece-workers, &c. (over 60 per cent.) respectively were the following :—

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Industries with over 80 per cent. of Time-workers.

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Agriculture.	Gas, Electricity and Water Supply. Local Authority Services.
Building. Construction of Works (Docks, Roads, Harbours, Sewers, &c.).	Printing and Bookbinding. Wallpaper Manufacture.
Mill Sawing, Machine Joinery, &c. Cabinet Making.	Chemical Manufacture.
Jewellery. Furriery. Scientific Instrument Making.	Grain Milling. Baking. Brewing. Mineral Water Manufacture. Sugar Refining. Spirit Distilling.
Textile Bleaching, Dyeing, Finishing, &c.	
Dressmaking, Millinery, &c. (Retail). Furriery. Dyeing and Cleaning.	Coach, Carriage, Cart, &c., Building. Oil-seed Crushing and Oil Cake Manufacture. Harbour and Dock Service. Linoleum Manufacture. China Clay and China Stone Works.
Railways. Tramway and Omnibus Services. Other Road Transport.	

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Industries in which over 60 per cent. of the workpeople were paid by results.

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Chain, Anchor, &c., Manufacture.	Corset Making.
Timplate Manufacture.	Straw Hat Manufacture.
Railway Carriage and Wagon Building.	Silk and Felt Hat Making.
Needle, Fish Hook, &c., Manufacture.	Shirt, Blouse, Underclothing, &c., Manufacture.
	Tailoring (Ready-made).
	Leather Glove Making.
Cotton Industry.	
Hosiery Industry.	Porcelain, China, &c., Manufacture.
Lace Manufacture.	Glass Bottle Manufacture.
Carpet Manufacture.	Brush and Broom Manufacture.
Textile Smallwares.	Slate Mining and Quarrying.
Fustian, Cord, &c., Cutting.	

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The proportions of workpeople paid at time-rates and by results in the exporting group of industries selected by the Committee are discussed in detail later in this memorandum. It is noticeable that, in most of the industries dealt with, the proportion of workpeople paid by results was above the general average for industry as a whole. It will be seen that in the cotton ready-made tailoring, and shirt, blouse, and underclothing industries, approximately two-thirds of the workpeople were paid at piece-rates; in the wholesale dress, mantle, millinery, &c., trade, over one-half of the workers were paid at piece-rates, and in coal mining approximately two-fifths are believed to be paid on piece-work. In the other industries dealt with, the majority of the workpeople were paid at time-work rates, but in each of these industries a considerable number of the workpeople engaged in the actual processes of manufacture were paid at piece-work rates or (in the case particularly of pig iron manufacture) at time-rates of wages supplemented by bonus on output.

No statistics have been collected since 1906 as to the relative proportions of workpeople paid at time-work rates and on piece-work or other systems of payment by results, and it is possible that in the interval of 19 years which has elapsed changes may have occurred in some industries. There was a considerable extension of payment by results during the war, especially in the munitions industries, and although there has since been a reversion in many cases to pre-war conditions, it seems not improbable that the proportion of workpeople paid by results is now higher in some industries than in 1906.

#### Different forms of Payment by Results.

The most common form of payment by results is that of plain individual piece-work. Under this system the remuneration of each worker varies in direct relation with his output, although

there is often a provision that some standard day-wage, commonly the time-rate minimum, shall be guaranteed to the piece-worker, irrespective of output. In some cases, however, where groups of men are working together, systems of group piece-work are in operation, the payment being related to the total output of the whole group of men. The division of the total payment in such cases varies. In some instances, e.g., among corn porters in London, the total sum is divided equally among all the members of the group; in others, e.g., among the rolling gangs at some iron and steel works, as is described later in this memorandum, the chief member of the group is a sub-contractor, who pays his assistants; and in others, e.g., among mule spinners and piecers in the cotton industry, the total sum is divided between the different grades in the group in proportions determined by trade union regulations or by agreement between the employers' associations and the trade unions concerned. The groups of workers participating in collective piece-work vary from small groups of two or three men upwards to much larger bodies. Mention may also be made of a system under which the ordinary wages of the workpeople generally are supplemented each month by a sum varying in accordance with the amount by which the total output of the whole works exceeds the normal standard output.

There are also a variety of cases in which an element of time wage is combined with an element of payment in relation to output. Glass bottle makers, for instance, are paid certain weekly or shift rates, and if they make more than a stipulated number of bottles they receive, in addition, payment by the piece for all output in excess of that number.

The cases of blast-furnacemen and of overlookers in the weaving section of the cotton trade are mentioned below, as are also the piece-work agreements between the employers' federation and certain trade unions in the engineering industry.

In the fishing industry the crews of fishing boats in many cases receive fixed rates of daily or weekly wages and also a bonus, consisting of a specified share in the net proceeds of the catch. The arrangements in the boot and shoe manufacturing industry are described later in the memorandum. In the slubbing dyeing trade in Bradford and Halifax, an agreement fixes the amount of work to be performed per day by certain classes of operatives who are paid at daily or weekly rates of wages. In the bespoke tailoring trade in many districts, agreements exist fixing not the price per unit of output, but the number of "hours" payment to be made, at an agreed rate per "hour," in relation to the performance of a number of specified operations irrespective of the time actually taken by the individual workman to perform the operations.

These examples, together with those described in more detail later in this memorandum, while far from comprehensive, afford some

indication of the diversity of the methods of wage payment by results in operation in this country, though no statistics are available as to the relative number of workers affected

#### Methods of Adjustment of Wages.\*

The arrangements for regulating rates of wages vary widely in their character in different industries. In industries to which the Trade Boards Acts have been applied, minimum rates of wages, which are statutorily enforceable, are fixed, and varied from time to time, by means of the machinery established under the Acts.† In a considerable number of other industries, minimum time-rates of wages have been settled for the principal grades of workpeople by collective agreements arrived at by employers' organisations and the trade unions, or by joint industrial councils where these exist; and agreed lists of piece-work prices have been compiled in many cases fixing the rates to be paid for definite amounts of piece-work. In some important industries, e.g. engineering and shipbuilding (see below), in which it is only in exceptional cases that minimum rates of wages have been fixed by collective agreement between employers and workpeople, the amounts of the general changes to be made in existing rates of wages are agreed upon from time to time by the employers' and workers' organisations.

In a considerable number of industries, agreements exist under which the wage rates are periodically reviewed and altered on a pre-arranged basis. In the principal sections of the heavy iron and steel industries, and to some extent in the iron mining and limestone quarrying industries, sliding scales have been arranged under which variations of specified amounts in the average selling prices of pig iron, finished iron or steel, are related to variations of specified amounts in the wages of the workpeople; the average selling prices are ascertained at intervals of two or three months, and the changes in rates of wages corresponding, under the sliding scale agreements, with the ascertained rise or fall in prices, follow automatically. In the coke and by-products industry, wage rates are similarly adjusted from time to time by sliding scales based on selling prices. These agreements are estimated to cover about 220,000 workpeople.

Selling price scales were at one time in operation in the coal mining industry, but these have been abandoned. The arrangements in operation at the present time are dealt with briefly below.

In a number of industries and services, estimated to cover about 2½ million workpeople, sliding scale agreements are in operation under which rates of wages, fixed at a particular date by the employers' organisations and trade unions, are varied from time to time, during the currency of the agreements, in relation to changes in

\* See also memorandum on pp. 285 *et seq.* † See pp. 287 *et seq.* and 470-1.

the cost of living, as indicated by the index figures compiled by the Ministry of Labour.\* The actual basic rates themselves, and the amounts of increase or decrease in wages to correspond with specified amounts of alteration in the cost of living figures, are fixed (and revised from time to time) after negotiations between the employers' organisations and the trade unions, in the course of which cognisance is taken, in the usual way, of relevant factors, other than cost of living. The fact that a cost of living sliding scale is in operation in a particular industry is not, therefore, to be taken as implying that no considerations other than variations in cost of living have been taken into account in fixing wages in that industry. Such sliding-scale agreements are known within the metal trades, textile trades, clothing trades, the food and drink trades, the wood-working and furniture trades, the building and allied trades, the transport trades, in public administration and public utility services and in a number of other trades and services. Examples of these are the agreements in electrical cable-making, carpet manufacture, boot and shoe manufacture, baking in many important areas of Great Britain, furniture manufacture, the railway service, the civil service; electricity, gas and waterworks undertakings, many of the local authorities' non-trading services; paper-making, indiarubber manufacture; and the Scottish co-operative societies.

#### **Systems of Wage Payment in the Exporting Group of Industries.**

##### *Coal Mining*

Little information was received in 1906 as regards coal mining and no comprehensive statistics are available as to the proportion of workers in the coal mining industry who are paid at piece-rates of wages, but according to the Report of a Court of Inquiry appointed under the Industrial Courts Act in 1924, approximately 40 per cent. of the employees at coal mines were piece-workers and about 60 per cent. were day wage workers. (Cmd. 2129.)

The systems of payment differ somewhat in the various coalfields, but hewers in all districts are mainly piece-workers, all other classes of labour, both surface and underground, being to a very considerable extent day-workers. In many districts the hewer pays his assistant or filler a time-wage out of his own piece-work earnings.

General changes in rates of wages in the coal mining industry are made, for the most part, by means of a variation of percentage additions to the basis rates prevailing in some specified year. These basis rates, which in some cases are day-wage rates and in others are piece-work rates, vary from district to district and in many cases at different collieries within each district.

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\* See p. 94.

An agreement for regulating wages in the coal mining industry was entered into between the Mining Association and the Miners Federation in June, 1924,\* amending an agreement of 1921.

Under this agreement the amounts of the percentage variations are determined and adjusted at monthly intervals, on the basis of the proceeds of the industry in a previous period, as ascertained regularly by returns made by the owners and checked by independent accountants appointed by the employers' and workers' organisations, in each of 13 districts into which the country is divided. The basic principle of the agreement is that wages rates in each district should be determined by the assignment to wages of approximately 87 per cent. of the proceeds of the industry in that district, after deduction of costs other than wages. But the operation of this principle was to be subject to the provision that in no circumstances were wages to be reduced below a level represented by current basis rates, plus the percentage additions thereto that were in operation in the several districts in July, 1914, plus an addition of 33½ per cent. to the total. This rate of wages is called the "minimum." Special provisions were also made in the agreement for increasing the wages of low paid day-wage workers, whose rates of wages determined as above do not provide a subsistence wage.

In addition to the minimum rates under the agreement, certain statutory minimum rates under the Coal Mines Minimum Wage Act, 1912, have been fixed for underground workers by joint boards appointed for the purpose in each district. But these awards have

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\* *Government Subvention* (July, 1925–April, 1926).

On the 30th of June, 1925, the coal owners in the various districts gave notice to terminate the agreement and made proposals for a new agreement, the essential features of which were the restoration of the 87 per cent. principle by the abolition of the obligatory minimum, and the substitution therefor of district minima to be fixed by agreement in the districts having regard to their respective economic circumstances. It was recognized that these proposals would mean an immediate and substantial reduction of wages for the great majority of workers, which the Miners' Federation declined to accept, and they advised their members to allow the notices to take effect.

This action was succeeded by a series of meetings between the Government and the parties, as the result of which the Government decided to institute a full inquiry into the economic position of the coal industry and the conditions affecting it. It was considered that this inquiry should be completed in good time before May, 1926, and, in the meantime, the Government agreed to assist the industry by maintaining wages at the level provided under the "minimum" provision of the 1924 agreement. Under this arrangement the Government agreed to pay monthly to each colliery, during the period from 1st August, 1925, to 1st May, 1926, the excess, if any, of its wages bill, calculated according to the "minimum" provision of the 1924 agreement, over the wages which would have been payable according to the method prescribed in the Mining Association's proposals of 1st July; provided, however, that if the owners' share of the divisible net proceeds under the terms of the agreement is estimated to exceed more than 15*d.* per ton in any periodical ascertainment, the excess will be transferred in relief of the Government subvention.

operated only to a very limited extent since the early days of the War by reason of the higher level of the minimum rates under national or local agreements.

*Iron and Steel Industry.*

In 1906 the proportions of time-workers and piece-workers employed in the iron and steel industry were as stated below.

Pig Iron Manufacture :—

	Time-workers.	Piece-workers.
Men .. .. .	89 per cent.	11 per cent.
Boys .. .. .	100 „	—
All workpeople .. .. .	90 „	10 per cent.

In regard to the above percentages of time-workers, the men engaged at and about the blast furnaces in connection with the smelting process are generally paid at time-rates of wages, supplemented in many cases by a bonus varying, for some classes of workers, e.g., keepers and slagers, with the output of the furnace, and for others, e.g., fillers, chargers, &c., with the quantity of material put into the furnace. The conditions as regards the payment of such output or input bonus vary in different districts. It will be seen that in 1906 only 10 per cent. of the men—mainly the pig lifters or metal carriers—were paid at straight piece-work rates. The general labourers, maintenance men, and other auxiliary workers are mostly paid at plain time-rates.

The wage rates of the workpeople employed at or about the furnaces are varied periodically, under sliding scale arrangements, in accordance with the selling prices of pig iron (or, in South Wales, of steel rails and tin bars). For this purpose the wage rates which were in operation at each works in a particular year are taken as the basic or standard rates, and the variations are effected by the addition of percentages, varying in amount with the selling prices, to these rates.

Steel Smelting, Iron Puddling, &c. :—

	Time-workers.	Piece-workers.
Men .. .. .	70 per cent.	30 per cent.
Boys .. .. .	87 „	13 „
All workpeople .. .. .	72 „	28 „

In the further processes of iron and steel manufacture (iron puddling, steel smelting, iron and steel rolling and forging, &c.), the skilled men engaged in the actual processes of smelting and manufacture were mainly paid, in 1906, at tonnage rates. The principal classes of productive workers, e.g., puddlers, melters and rollers, worked mostly in groups or gangs. In many cases the head man of the group was paid a contract price or tonnage rate for the whole of the work performed, the subordinate members being employed and paid by the head of the group; in others all were employed and paid directly by the firm. But in either case the most general



practice was for the head of the group and his chief assistants to be paid at piece-work rates, and the subordinate members at time-work rates. So far as official information is available, there has been no material change in the conditions since 1906, except that there is understood to have been a diminution in the amount of sub-contracting and an increase in the system of direct employment and payment by the firms. About 28 per cent. of the workers were paid at piece rates (or at a combination of piece and time-rates) of wages in 1906 and the remainder (72 per cent.) at time-rates. This latter percentage was composed largely of the subordinate members of groups and gangs referred to above, and of the general labourers, maintenance men, mechanics, and other auxiliary workers.

In these sections of the industry, as in pig iron manufacture, sliding scale agreements exist under which the rates of wages of men engaged in the manufacturing processes (and in many cases those of auxiliary workers also) are adjusted periodically in accordance with variations in the selling prices of typical products, the rates paid at each works at a particular date, taken as the basis date, being adopted as the basic or standard rates, and the periodical variations being effected by adding varying percentages to these rates.

#### Engineering.

In 1906 the proportions of time-workers and piece-workers employed in the engineering industry were:—

	Time-workers.	Piece-workers.
Men .. .. .	73 per cent.	27* per cent.
Boys .. .. .	73 "	27* "
Women .. .. .	50 "	50* "
Girls .. .. .	76 "	24* "
All workpeople .. .. .	73 "	27* "

Foremen, patternmakers, slingers or riggers, enginemen, cranimen and firemen were almost wholly on time-work. The proportions of workpeople employed under the different systems in the principal other occupations were as follows:—

Occupation.	Time-work.	Piece-work.	Bonus Systems.
Moulders .. .. .	76	24	—
Smiths and Strikers .. .. .	64	36	—
Turners .. .. .	61	29	10
Fitters, Erectors and Millwrights	70	22	8
Machinemen .. .. .	53	38	9
General Labourers .. .. .	91	8	1
Boiler Platers .. .. .	52	48	—
Riveters and Caulkers .. .. .	63	37	—
Holders-up .. .. .	57	43	—
Platers' Helpers .. .. .	50	50	—

\* Including premium bonus and other bonus systems.

During the war period there was a considerable extension of piece-work and other systems of payment by results. It is not known how far there has since been a reversion to the pre-war position in this respect, but in 1922 agreements were arrived at between the Engineering Employers' Federation and the National Union of Foundry Workers, the United Patternmakers' Association, and various other trade unions providing for the introduction of systems of payment by results subject to certain conditions, e.g., as to the methods of fixing piece-work prices and bonuses. Similar proposals were discussed with the Amalgamated Engineering Union, but no agreement was reached.

There are relatively few cases in this industry in which minimum rates of wages for the various grades have been fixed by collective agreement between the employers' organisations and the trade unions, though most of the latter have fixed minimum rates for observance by their own members. The amounts of the general changes to be made in existing rates of wages, however, are agreed upon from time to time after negotiation between the employers' organisations and the unions.

#### *Shipbuilding.*

In 1906 the proportions of time-workers and piece-workers employed in shipbuilding and repairing were :—

	Time-Workers.	Piece-Workers.
Men .. .. .	66 per cent.	34 per cent.
Boys .. .. .	70 .. .. .	30 .. .. .
Women .. .. .	83 .. .. .	17 .. .. .
All workpeople .. .. .	67 .. .. .	33 .. .. .

In certain occupations practically all the workers were on time-work : these included foremen, patternmakers, sheet iron workers, cabinet makers, ship plumbers, sailmakers, enginemen, cranemen and firemen. In some other cases, including shipwrights, ship joiners, fitters, ship painters, and general labourers, the great majority were time-workers. In other occupations some of the men were on time-work and others on piece-work, the proportions employed under the two systems in the principal of these occupations being :—

Occupation.	Time-work.	Piece-work.
Platers .. .. .	21	79
Platers' Helpers .. .. .	38	62
Riveters .. .. .	21	79
Holder-up .. .. .	14	86
Drillers and Hole Cutters .. .. .	27	73
Machinemen .. .. .	64	36

The position in regard to the fixing of minimum time rates of wages by collective agreements is the same as that described in the engineering industry. There are a number of local lists of piece-work prices for riveting, and some for other operations, recognised by the employers and the trade unions concerned.

*Electrical Manufacturing Industries.*

In 1906 the proportions of time-workers and piece-workers employed in the manufacture of electrical apparatus were :—

	Time-Workers.	Piece-Workers.
Men .. .. .	73 per cent. ..	27 per cent.
Boys .. .. .	79 " ..	21 "
Women .. .. .	47 " ..	53 "
Girls .. .. .	65 " ..	35 "
All workpeople ... ..	70 " ..	30 "

The piece-workers were found mainly among accumulator makers, lamp makers, machinemen and assemblers. In view of the development of this industry, it is possible that considerable changes in methods of payment may have been made since that date.

Minimum time rates of wages have been fixed by agreement between the employers' organisations and the trade unions, and are now in operation for machine drivers, labourers, women and young persons engaged in electrical cable making ; but in other sections of the industry collective agreements between the employers' and workers' organisations, fixing minimum time or piece rates of wages, are exceptional.

*Cotton Industry.*

In 1906 the proportions of time-workers and piece-workers employed in the cotton industry were :—

	Time-Workers.	Piece-Workers.
Men .. .. .	42 per cent. ..	58 per cent.
Boys .. .. .	83 " ..	17 "
Women .. .. .	10 " ..	90 "
Girls .. .. .	53 " ..	47 "
All workpeople .. ..	34 " ..	66 "

Among the men and boys, the workpeople employed in the preparing and carding departments are mainly paid at time rates of

wages. Other classes of workers paid mainly at time-rates are mechanics and maintenance men, general labourers, warp sizers and the spinners' and weavers' assistants. In some cases, however, e.g., grinders and big piecers, the amounts of the time rates are related to some extent to the amount of machinery tended or the quantity of material handled by the machines. Spinners and weavers are in almost all cases paid at piece-rates. Among the women and girls, the great majority of those engaged in the productive processes, especially the weavers, winders, reelers and warpers and the drawing, slubbing, intermediate, and roving frame tenters, are piece-workers, the time-workers being composed mainly of the assistants to the spinners, weavers and frame tenters. In 1906, the great majority of the women engaged in ring spinning were time-workers, but it is possible that, owing to the introduction of new lists of piecework prices for this work since that date, the proportion of piece-workers in this occupation may now be greater. Overlookers in the weaving department are generally paid by "poundage" calculated on the earnings of the weavers under their supervision, subject to a minimum wage of 75 per cent. of normal full wages for the time worked if the full number of looms is not running. The time rates of wages of boiler firemen differ according to whether the quantity of fuel burned is less or greater than 50 tons weekly.

The rates of wages to be paid to the principal classes of piece-workers (including mule and ring spinners, weavers, frame tenters, winders, and others) are for the most part regulated by lists of piecework prices, many of which are very detailed and highly elaborate, agreed upon by the employers' associations and trade unions. General changes in rates of wages, arranged from time to time by negotiation between the employers' organisations and the trade unions, mostly take the form of percentage additions or reductions on the piecework prices fixed in these lists.

#### *Wool Textile Industry.*

In 1906 the proportions of time-workers and piece-workers were:—

				Time-Workers.		Piece-Workers.
Men	..	..	..	73 per cent.	..	27 per cent.
Boys	..	..	..	96	..	4
Women	..	..	..	39	..	61
Girls	..	..	..	88	..	12
All workers	..	..	..	62	..	38

In the case of males, scribblers or fettlers, combers, worsted spinners (youths), warehousemen, mechanics, stokers, and labourers were generally on time-work, as were also the majority of foremen,

wool washers and scourers, willeys, dressers and finishers and piecers. Weavers were mainly on piece-work. Amongst female workers, scribblers' feeders, condenser minders, combers, and worsted spinners were generally time-workers, as were also a large proportion of finishers and drawers. Weavers, reelers, winders, warpers, burlers and knotters and menders were mainly piece-workers.

For most of the principal classes of time-workers, including wool sorters, willeys and fettlers, combers, spinners and over-lookers of time-work, labourers, finishers, warehousemen, &c., minimum time-rates of wages have been agreed upon by the employers' organisations and the trade unions. For piece-workers, collective agreements embodying district rates of wages for piece-work have not been arrived at to so great an extent as in the cotton industry, owing probably, at least in part, to the great diversity of the products of the woollen and worsted industry. Some district piece-work lists of prices, however, are in operation for certain classes of work-people, including weavers at Huddersfield, Yeadon and Guiseley, flannel weavers at Rochdale, cloth pressers at Huddersfield, and wool sorters at Bradford. As regards weavers' wages, an arbitration award in 1919, dealing with a claim for the application of the Huddersfield list prices to various other districts, directed that, in districts in which uniform standard district weaving scales were not in operation, scales of rates of wages should be adopted which would yield average earnings equivalent to the amounts specified in a schedule appended to the award.

The rates of wages paid in this industry consist of two elements, viz., a basic or standard rate, to which is added a "cost of living wage." In 1919, a sliding scale agreement was adopted under which wage rates were to be adjusted, from time to time, in accordance with variations in the Ministry of Labour cost of living index figure. In June, 1925, the current arrangement was that the original basic rates had been increased by 10 per cent. and a cost of living wage equivalent to 72½ per cent. on the basic rates so enhanced, was paid.

#### *Chemical Industry.*

In 1906 the proportions of time-workers and piece-workers employed in the manufacture of heavy chemicals were:—

		Time-workers.	Piece-workers.
Men	.. ..	83 per cent.	.. 17 per cent.
Boys	.. ..	93	.. 7
All workpeople	.. ..	84	.. 16

The piece-workers consisted mainly of process-workers and skilled labourers (of whom less than one-third were piece-workers and over two-thirds were time-workers) and of coopers, over two-thirds of whom were piece-workers and less than one-third time-workers.

Minimum rates of wages are recognised by the employers' federation and the trade union concerned for (a) daywork labourers and (b) process labourers. So far as is known, no general list of piece-work prices has been agreed upon by the employers' and workpeople's organisations.

#### *Clothing Trades.*

In 1906 the proportions of time and piece-workers in the larger industries in this group were:—

	Time-workers.	Piece-workers.
Ready-made Tailoring ..	35 per cent. ..	65 per cent.
Dress, Millinery, &c. (Ready-made).	43 „ ..	57 „
Shirt, Blouse, Underclothing, &c., Manufacture.	32 „ ..	68 „
Boot and Shoe Manufacture.	77 „ ..	23 „

Trade Boards have been established to cover boot and shoe repairing (not manufacture), the corset trade, dressmaking and women's light clothing, the fur trade, the hat, cap and millinery trade, the ostrich and fancy feather and artificial flower trade, retail bespoke tailoring, ready-made and wholesale bespoke tailoring, shirt-making and the wholesale mantle and costume trade.\*

In the boot and shoe manufacturing industry, wage-rates are regulated by collective agreements between the employers' organisations and the trade unions. General minimum rates of wages for time-work have been agreed upon for male and female operatives, classified according to age and according to departments or classes of work, and provision is made for variation in the rates according to whether the Ministry of Labour index figure is above or below certain specified levels. Certain classes of workers not engaged in the actual processes of manufacture are excluded from the operation of the agreed minimum rates.

Piece-work statements, recognised by the employers and workpeople, exist in a number of districts; but a clause in the National Agreement stipulates that, while such statements are accepted as a basis of payment, "the system shall be termed a day-work system, and the wages of the operatives shall be adjusted weekly according to the amount of work done at the prices fixed by the statement for each operation or process, provided that no adult operative shall be engaged at less than the minimum wage rate without the written permit of the union or the local arbitration board in cases where the

\* See pp. 470-1.

minimum wage is applicable, and provided also that when operatives, whether on full or short time, have been supplied with a full quantity of work, and have been granted reasonable facilities for the proper performance of their work, and do not earn the minimum or agreed wage rate at the statement prices, they shall be paid only for the actual work done at the statement prices."

Certain classes of workpeople in some districts are paid a fixed minimum time-wage, for which they are expected to turn out, in the week, a specified quantity of work. If a workman turns out a greater quantity, he is entitled to receive, in future, wages at a higher rate, so long as he maintains the higher rate of output.

#### TIME-WORK AND PIECE-WORK IN GOVERNMENT ESTABLISHMENTS.

[The information contained in the following tables has been furnished by the Admiralty and the War Office respectively.]

##### A.—NAVAL DOCKYARDS IN GREAT BRITAIN.

TABLE I.

Amount and percentage of wages paid at the Home Dockyards for work carried out (1) on day pay rates and (2) under piece-work conditions.

Financial Year.	Total Wages paid.	Wages paid for Work carried out on Day Pay.		Wages paid for Work carried out under Piece-work Conditions.	
		Amount.	Percentage.	Amount.	Percentage.
(1)	(2)	(3)	(4)	(5)	(6)
1913-14 ..	£ 3,377,368	£ 2,991,953	88.6	£ 385,415	11.4
1924-25 ..	5,868,806	4,458,738	76.0	1,410,068	24.0

Notes.—(i) With the trifling exception of casual labourers engaged for coaling operations, the workers employed by the Admiralty are engaged on entry on a weekly wages basis and are employed on piece-work only with their own consent, and not regularly but at intermittent intervals. The statistics furnished can, therefore, be expressed only in terms of money payments, showing the portions spent on day pay wages and piece-work respectively.

(ii) The above figures exclude payments to coaling labourers specially entered totalling £18,734 for 1913-14 and £8,317 for 1924-25.

(iii) An analysis of the amount shown in column 5 for 1924-25 is given in Table III.

TABLE II.

Statement showing the amounts paid at the Home Dockyards for work performed under piece-work conditions compared with the corresponding day pay wages of the men concerned.

Financial Year.	Actual Earnings (as Col. 5 of Table I).	Corresponding Day Pay Wages.	Excess of Col. (2) over Col. (3).	Percentage Excess of Piece-work Earnings over the corresponding Day Pay of the men concerned.
(1)	(2)	(3)	(4)	(5)
1913-14 ..	£ 385,415	£ 278,345	£ 107,070	38·5
1924-25 ..	1,410,068	1,073,694	336,374	31·3

Notes—(i) The above figures exclude payments to coaling labourers specially entered totalling £18,734 for 1913-14 and £8,317 for 1924-25.

(ii) In 1913-14 straight piece-work was the only form of earnings by results in operation, and approximately 90 per cent. of the piece-work was in respect of structural work. (See footnote to Table III.)

In 1924-25 piece-work in the form of "job contracts" was also worked. The following Table III shows the amount and percentage of piece-work falling under each heading in that year.

TABLE III.

Analysis of wages paid at the Home Dockyards for work carried out under piece-work conditions during the financial year 1924-25.

Nature of Work.	Straight Piece-work.		Job Contract (without equalizing formula).		Job Contract (with equalizing formula).		Total (as Col. 5 of Table I).	
	Value.	Per-centage.	Value.	Per-centage.	Value.	Per-centage.	Value.	Per-centage of Grand Total.
Structural Work*	£ 520,635	42·4	£ 422,379	34·5	£ 283,868	23·1	£ 1,226,882	87·0
Engineering Work	11,859	21·8	26,398	48·5	16,215	29·7	54,472	3·9
Electrical Work	440	0·5	28,042	31·0	61,984	68·5	90,466	6·4
Miscellaneous Work	36,880	96·5	1,368	3·5	—	—	38,248	2·7
Total ..	569,814	40·4	478,187	33·9	362,067	25·7	1,410,068	100·0

\* Construction and repair of ships, excluding machinery.



*Note on the forms of Piece-work mentioned in the above Table.*

Individual or straight piece-work is based on a scheme of prices for each operation. Each man receives what he personally has earned. Collective or job piece-work is based on a price fixed by agreement between officers and men to cover all the operations required to be carried out by a number of men working together, or in co-operation, to complete a specified job. Under this system each man receives first his time wages, and the balance, if any, is shared in proportion to the amounts of the time wages of the men engaged on the job. In certain cases an "equalizing formula" is applied to the price arrived at under job piece-work. By this formula the workmen are assured of a payment in excess of time pay even if the job price (or standard price) turns out to be only just equal to time pay, while a reduction may be made if the job price is found in practice to have been fixed unduly high. The formula in use is:—

$$\text{Total earnings} = \left( T \left( 2 \cdot 07 - \frac{T}{J} \right) \right).$$

Where T = Time pay for time worked.

J = Standard sum agreed to for the contract.

B.—INDUSTRIAL OPERATIVES AT CERTAIN WAR DEPARTMENT ESTABLISHMENTS.

(1) Establishment.	Pre-war Position. (Percentage of Operatives).		Position, February, 1925. (Percentage of Operatives).		Remarks.
	On Time-work.	On Piece-work.	On Time-work.	On Piece-work.	
<i>Royal Ordnance Factories, Woolwich.</i>					} All grades skilled, semi-skilled and unskilled.
Fitting Factories ..	29	71	34	66	
Foundries and Forges	32	68	38	62	
Machine Shops ..	28	72	29	71	
Erecting and Finishing Shops	40	60	39	61	
Tool Shops .. ..	57	43	55	45	
Woodworkers' Shop	20	80	19	81	
Miscellaneous Shops and Maintenance, &c., Services	80	20	78	22	
Average over all Shops, &c.	47	53	47	53	

B.—*Industrial Operatives at certain War Department Establishments*  
—continued.

(1) Establishment.  (2) Trades, Crafts, Shops, etc.	Pre-war Position. (Percentage of Operatives.)		Position, February, 1925. (Percentage of Operatives.)		Remarks.
	On Time- work.	On Piece- work.	On Time- work.	On Piece- work.	
<i>Royal Small Arms Factory, Enfield.</i> Work mainly of an engineering char- acter	31	69	42	58	1. All grades, but largely semi-skilled. 2. Decrease in propor- tion of pieceworkers due to reduction of establishment and transfer of certain work performed on piecework basis. 1. Pieceworkers are mainly of non-skilled grades on packing, loading and un- loading work. 2. Decrease in propor- tion of pieceworkers due partly to an in- crease in the numbers of Examiners (time- workers) and partly to a diminution of the amount of work which is amenable to payment by results.
<i>Inspectorate of Armaments, Woolwich.</i> Work mainly of an engineering char- acter	76	24	93	7	
<i>Royal Army Ordnance Depot, Woolwich.</i> Workshops (miscel- laneous):—					All grades employed on clothing manufacture.
Craftsmen ..	100	Nil	100	Nil	
Semi-skilled and un- skilled workers	95	5	95	5	
Average over Shops as whole	98	2	98	2	
Storehouses and Yard	95	5	91	9*	
<i>Royal Army Clothing Depot, Pimlico.</i> Clothing Factory:—					
Males .. ..	100	Nil	100	Nil	
Females .. ..	3	97	5	95	
All Workers ..	10	90	13	87	
Clothing Store ..	91	9	92	8†	

\* Chiefly loading and unloading work.

† Semi-skilled labourers employed in packing.

## FAMILY ALLOWANCES IN INDUSTRIAL REMUNERATION.

The system of family allowances was adopted to a greater or less extent in a considerable number of European countries during the war. The increase in the cost of living led to a reduction of real wages in a number of industries, thus causing considerable hardship, especially to workers with large families. The practice arose of adding a cost of living bonus to the basic wage, and in order to meet the greater needs of married men with families, a further addition was made to their remuneration, for which purpose the size of the family which the worker had to maintain could be taken into account.

In many cases allowances were paid only in respect of dependent children and an age limit was fixed, usually at 14 years of age. Some systems, however, provided for the continuation of payments in respect of older children who were continuing their education or were undergoing industrial training as apprentices. Allowances might also be paid in respect of invalid children over the usual age limit, and in some cases for aged dependants.

In some countries, e.g. France and Belgium, a distinction between the wage and the allowance has been drawn, the allowance being often paid not to the wage-earner but to the mother, and frequently by persons other than the employer. In Germany and in certain other countries, on the other hand, the "family wage" was generally paid directly to the worker along with his ordinary wage. In France and Belgium especially, the system developed largely on the initiative and under the control of the employers. In Germany, Austria, Czechoslovakia, Poland and the Netherlands it rested to a large extent on the basis of collective agreements between employers and workpeople. In practically all cases the cost was met by the employers. To remove the difficulty which married workers with large families would otherwise find in obtaining employment, the practice was adopted, particularly in France and Belgium, and in a few cases in other countries, of groups of employers contributing to a common fund (equalisation fund) from which the family allowances are paid to the workers. The contributions of employers, being regulated on some such basis as the number of persons employed or the total wage bill of the establishment, did not vary according to the number of children dependent on the workers employed in the establishment, and consequently individual employers had no inducement, when engaging workers, to prefer those with few or no dependants.

One object of family allowances, which has received full consideration in countries desiring to increase their population, particularly France, is that of increasing the birth rate. In other countries, however, such an increase is regarded as a disadvantage of the system.

With the return of more normal conditions after the war, the system of paying family allowances was largely discarded in a number of countries, particularly in the Scandinavian countries, Italy and Switzerland. In the case of France and Belgium, however, the system has developed rapidly since the war; and some information as to the position is given below. It is believed that in Germany a family allowance is included in practically every wages tariff, but the allowances appear to be small.

No recent official information is available as to the extent to which the system remains in force in other countries. An interesting survey of the subject was issued by the International Labour Office in 1924\* and forms the basis of the above paragraphs, but conditions in most of the countries concerned have been subject to change and fluctuation since that date, and it is not known how far the detailed information given in the survey regarding individual countries is still applicable. The system does not appear to have been adopted in any industry in this country, though there are of course various other connections in which family needs are recognised, for example, in the payment of unemployment insurance benefit and the grant of poor law relief, and in the income tax regulations which accord certain allowances from taxable income in respect of children.

#### France.

[*Information received from H.M. Commercial Counsellor, Paris, November, 1925.*]

The family allowance system has become an established practice not only in the case of State employees of practically all grades, who total about one million persons, but also generally in the coal mining, railway, metallurgical, engineering, chemical, textile, printing, building and transport trades. By the middle of 1925 there were affiliated to the 180 clearing or equalisation funds ("Caisses de Compensation") formed by employers for the execution of their accepted liabilities in this connection, over 11,000 factories employing 1,200,000 wage-earners, and in undertakings not affiliated to such funds over 2,000,000 more wage-earners. These allowances represent a considerable addition to the well-being of the recipients; in June, 1925, it was authoritatively stated that for trades generally the average monthly allowances for one, two, three, four, five and six children were 19, 48, 90, 140, 194 and 253 francs, and for State workers 45, 60, and 90 francs for one, two and three children. But in many cases the rates are on a higher scale. Thus the Roubaix-Tourcoing Textile Industry Consortium, which made allowances to over 33,000 families in 1925, pays 2, 5, 8,

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\* "Family Allowances" (Studies and Reports, Series D, No. 13).

12 and 15 francs per day for families of one up to five children respectively. More than half the workpeople employed under the Consortium receive allowances. The Paris-Lyons-Mediterranean Railway makes annual allowances of from 504 to 804 francs for each of the first two children under 18 years and from 852 to 1,302 francs for each further child (and up to 21 years if engaged upon an educational course and later still if infirm). In 1924 these allowances cost this company 59 million francs; and similar allowances cost the Eastern Company 36 million francs. The mining companies pay daily allowances of two and a half francs for the first two children, and two francs for each succeeding child. One great rubber company undertakes to pay from 40 to 250 francs a month to its workers according to the number of children; another, 75 francs a month for each of the first two children under 16, but wage-earners with three children receive 300 francs, with four 400 francs, and those with 13 children are eligible to receive 1,020 francs monthly.

In a number of cases, allowances are paid in respect of the wife as well as the children, and birth allowances and payments to nursing mothers are also made.

In addition, the family allowance clearing offices, apart from making the necessary financial arrangements for their areas, serve effectively the welfare of the workpeople in a great many cases by virtue of their maintenance of visiting nurses, of propaganda for improving the hygienic conditions of dwellings and the care of children, of creches for infants, and also by making special sickness allowances.

#### Belgium.

*[Information extracted from the Annual Reports of H.M. Commercial Secretary, Brussels, for 1923 and 1924, and from the Ministry of Labour Gazette for January, 1926.]*

The initiators of the system in Belgium were groups in the Verviers, Tournai and Renaix districts, and the employers' federations in the zinc and building industries.

These groups, in conjunction with some others which approved the system, decided towards the close of 1922 to form a permanent central committee (Comité d'Etude des Allocations Familiales) which, without prejudice to the independence of the individual groups, should serve as a connecting link between them, collect information and investigate the various technical, legal and social problems which might arise. The formation of this committee marked the beginning of the wide expansion of the movement, which, at the end of August, 1925, embraced firms employing between

300,000 and 350,000 workmen.\* The total allowances paid amounted to 60 million francs. The financial charges incurred are borne in their entirety by the employers.

In addition to the mining industry, the federation of zinc, lead, silver, copper and nickel foundries, the national federation of building industries, and the plate glass industry, have all adopted the system, and many others, including the blast furnaces, steel works, rolling-mills and mechanical engineering works, have formed "Caisses de Compensation." These were instituted in order to average the charges incurred in any one industry or district, and so to overcome the natural obstacle to the system, the difficulty that the father of a family might encounter in finding employment. At the end of August, 1925, 773 firms employing 153,000 workmen, were affiliated to the "Caisses de Compensation." The sums distributed to the beneficiaries of these "Caisses" amounted to approximately 28 million francs. The allowances are paid not in the factory, but at the workman's house. They are not uniform throughout the country. Their gradation depends on local conditions, on the average number of children per 100 workmen, and on the population of male and female workers employed in any one industry or district.

The amounts paid as family allowances vary between 10 to 52 francs and 30 to 200 francs a month for one to four children. The latter scale (i.e. 30, 75, 135, 200 francs a month, plus 75 francs for each further child) is paid by the Family Allowance Compensation Fund of the National Textile Industry Federation, a fund which came into operation on 1st January, 1925, and which covers 15,500 workpeople, and has an approximate monthly disbursement of 529,000 francs. Most of the funds pay maternity allowances varying from 100 francs for the first child, with larger amounts for each subsequent child, to 250 francs for the first child, with smaller amounts for those following. In some cases, provision is made for other social work, such as district nursing, hygiene and child welfare. The system is of an entirely voluntary character and proposals to make it compulsory by means of legislation have encountered great opposition, as it is feared that many of the advantages of the present system, due entirely to private initiative, would thereby be imperilled.

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\* At the end of 1924, the corresponding figure was 280,000 of whom some 160,000 belonged to the coal-mining industry.

## CHAPTER III.

## CONDITIONS OF LABOUR.

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HOURS OF LABOUR AND OVERTIME CONDITIONS  
IN GREAT BRITAIN.

[Furnished by the Ministry of Labour.]

## Hours of Labour, 1914.

Before the war, there were considerable differences in the number of hours constituting a normal week's work in different industries. Under the provisions of the Factory and Workshop Act, 1901, the maximum hours of labour of women and young persons fixed by these Acts were, in textile factories, print works, and bleaching and dyeing works, 55 hours for manufacturing processes and 55½ hours for other purposes, and in non-textile factories and all workshops, 60 hours per week. Under the Coal Mines Regulation Act, 1908, the hours of coal miners, employed underground, were limited to a daily maximum of 8, reckoned from the time of the last workman in a shift leaving the surface to the time of the first workman returning\* ; and those of deputies, firemen or examiners, and certain other grades specified in the Act, to 9½ hours. Subject to these restrictions, the hours actually worked per week varied from 44, or less, in some cases, up to 72, or even more, in others ; but those of the great majority of workpeople ranged between 52 and 56 weekly, and apart from underground coal miners it was only in exceptional cases that a working week of 48 hours or less, or a working day of eight hours or less, was in operation.

## Reduction of hours in 1919 and 1920.

In the years 1919 and 1920 reductions in hours of labour were made in nearly all industries. In the engineering and shipbuilding industries, negotiations between the employers' organisations and the trade unions resulted in an agreement to reduce the normal working week (usually of 53 or 54 hours) to 47 hours, as from 1st January, 1919, without any reduction in the weekly wages of time-workers. Similar arrangements, reducing the normal working hours to 47 weekly, were subsequently made in a number of other metal working industries ; and in the iron and steel industries 8-hour shifts, which had been in operation only in certain sections, were generally adopted for the shift workers, many of whom had previously been on 12-hour shifts. The 8-hour shift was also applied to gas and electricity supply undertakings and to various other shift-working industries. In the railway service a 48-hour week was adopted as from 1st February, 1919, resulting in substantial reductions in working hours for the great majority of the workers, large numbers of whom had previously worked a day of 10 hours or more.

\* In practice this means that the general body of workmen in each complete shift were allowed to be below ground for an average of eight hours plus one winding time. The average winding time throughout the United Kingdom was estimated by the Sankey Commission as 39 minutes.



A 48-hour week was also introduced in many other industries, including the cotton, woollen and worsted, silk, hosiery, linen, carpet, textile finishing, boot and shoe, wholesale clothing, carting, tramway and omnibus, printing and bookbinding, cement, and leather industries. The Coal Mines Act, 1919, reduced the hours of coal miners employed underground to a maximum of seven per day, reckoned as stated above, and those of deputies, firemen, &c., to eight. At the same time, the hours of labour of workpeople employed at the surface of the mines were also reduced by agreement from 49 to 46½ per week. In the building industry the hours were reduced at different dates in different sections of the industry until, in 1920, a 44-hour week in the summer had been agreed upon in all the principal centres. The hours of labour in the building industry were further modified by an Award of an Arbitrator issued in August, 1923, which provided that the hours should be 44 per week except during the statutory summer period, when they should be 46½, except in any town or area in which the employers and operatives should agree to work 44 hours all the year round.

In the case of the 1½ million workpeople engaged in industries to which the Trade Boards Acts have been applied, Trade Boards were given power by the Amending Act which became operative in October, 1918, to declare the hours normally worked in the trade per week or on any day, and to fix higher rates for hours worked in excess of this number. At December, 1919, practically all Trade Boards had used this power to declare a normal week of 48 hours, the only exception being the Trade Boards for Hollow-ware, Coffin Furniture, Stamped or Pressed Metal Wares, and Pin Hook and Eye and Snap Fasteners, which declared a normal week of 47 hours, and the Dressmaking and Millinery Boards for Scotland, which declared a week of 46 hours. Such evidence as is available with regard to the hours normally worked in the eight trades in which Boards had been established prior to 1918\*, suggests that, except in the case of home workers, weekly hours ranged from 55 to 50.

In all, reductions in hours of labour affecting about 7 million workpeople were reported to the Ministry of Labour in 1919 and 1920, the average reduction in working time being about six hours per week. As the changes in hours reported are mainly those arranged between organised groups of employers and workpeople and as numerous changes arranged by individual employers do not come to the notice of the Department, the total number of workers whose hours were reduced must have been considerably greater than 7 millions.

In almost all cases the reductions in hours were subject to the condition that weekly time wages should not be reduced. For workers paid by the hour, either the time rates were enhanced in the proportion in which the weekly hours were reduced, or the reductions

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\* See p. 93.

in hours were accompanied by increases in hourly rates which resulted in net increases in weekly wages. Those paid at weekly, daily, or shift rates generally continued to receive the same amounts as before the change in hours. As regards piece-workers the practice adopted varied in different industries. In some industries no general change in piece-work rates was made; in others the piece rates were enhanced, in some cases in proportion to the reduction in hours and in other cases by smaller amounts.

#### Hours of Labour, 1925.

In a few cases the reduced hours agreed upon in 1919 and 1920 have since been slightly increased, but the general effect of the changes has been to establish a normal working week (apart from overtime) of 48 hours or less in nearly all the organised industries; though it is probably the case that in some of the less well organised trades a longer working week is often worked. The principal exceptions to the general rule in the organised trades are certain industries in which, owing to the nature of the process, work is carried on continuously by day and night, and throughout the week-end. For example, in pig iron manufacture, heavy chemical manufacture, lead and spelter manufacture, and in the gas and electricity supply industries in some districts, although 8-hour shifts are in operation, the shift-workers employed on or in connection with the actual processes of smelting or manufacture generally work an average of seven shifts per week, though in some such cases the average weekly hours actually worked are less than 56 owing to the employment of spare men who take turns of duty in the absence of the regular shift workers. It should also be observed that the 8-hour turns in these industries are inclusive of time taken for meals in the intervals which occur in waiting on the process of manufacture.

In Table 10 in Chapter VI,\* particulars are given showing, for each of the principal industries in respect of which information is available, the hours recognised by employers and workpeople as constituting a full ordinary week's work (exclusive of overtime) (a) at the end of 1918 (prior to the reductions which were generally made in 1919 and 1920), and (b) at June, 1925. In considering the information given in the table, it should be borne in mind that no general statistics as to hours of labour in all industries have been completed since 1906,† and that the information given relates only to the hours specified in agreements signed by organisations of employers and workpeople, or in the absence of formal agreements, the hours known to be generally recognised by such organisations. As the hours agreed upon are not necessarily binding on non-associated employers employing non-union workmen, cases

\* See pp. 433-443.

† An enquiry is in progress as to hours of labour in 1924, but the statistics are not yet available.

will be found (especially in industries and districts in which the employers' and workpeople's organisations are not strongly represented) in which hours in excess of those agreed upon are actually worked. It should also be noted that, as already mentioned, in many of the less well organised industries, in which the hours of labour are not governed by collective agreements between employers and workpeople, the working week is probably longer, on the whole, than in the organised industries dealt with in the table.

#### **Rates of Payment for Overtime, 1914.**

The agreements in operation now between employers and workpeople standardising the rates of payment for overtime in the principal industries, have in many cases been arrived at since 1914. As the available information on the subject is in the main confined to the particulars embodied in such agreements, few details being available in regard to industries in which no agreements existed, a comprehensive review of the position prior to the war is not practicable. From such information as is available, however, it appears that in some cases the first hour, or a small number of hours after the end of the normal day, was worked at ordinary rates of wages, but more frequently payment was at the rate of time and a quarter, or time and a half, supplemented in some industries by higher rates after the expiration of a specified period of overtime.

In the building industry there was no general agreement in regard to overtime rates, but an examination of the various local agreements indicates that overtime was paid for at the rate of "time and a quarter" (i.e. 25 per cent. above ordinary rates) for two hours, or till 7 p.m. or 8 p.m., and in rare instances till 10 p.m., followed by "time and a half" (i.e. 50 per cent. above ordinary rates) for two hours, or till 10 p.m., with double time for subsequent hours. In the engineering and shipbuilding industries, the rate for overtime in some districts was time and a quarter, followed by time and a half after two or four hours, and, in other districts, time and a half for all overtime worked on week-days. In the railway service overtime was paid for at ordinary time rates in some cases, and at the rate of time and a quarter in others, but there was no general agreement on the subject, and the conditions varied in different districts and for different classes of workpeople. In the boot and shoe manufacturing industry, overtime worked in not more than nine weeks in the year was paid for at ordinary rates of wages, and for work beyond this limit at time and a quarter. In the furniture making industry, local agreements provided for a rate of time and a quarter for two hours, followed by time and a half, or for time and a quarter for all hours worked. In other important industries, there were, so far as official information is available, no agreements fixing overtime rates for the bulk of the operatives, and no information is available as to the conditions usually prevailing.

**Rates of Payment for Overtime, 1925.**

Table 10 in Chapter VI\* gives particulars, so far as they are available, as to the overtime rates of pay agreed upon by employers' and workpeople's organisations. As in the case of the particulars there given as to hours of labour, the information is based on the provisions contained in the collective agreements between the employers' and workpeople's organisation in those industries in which such agreements exist. As the overtime rates fixed by agreement are not necessarily binding on non-associated employers employing non-union workmen, cases may be found, especially in industries or districts in which the employers' and workpeople's organisations are not strongly represented, in which the rates actually paid are lower than those specified in the agreements. Moreover, it is probable that lower overtime rates are paid in some of the less well organised trades, in which no such agreements have been made.

Where time-workers are concerned, the payment agreed upon for overtime is in most cases at the rate of time and a quarter, or at this rate for overtime not exceeding a specified duration (frequently two hours) on any day, but with higher rates, generally (time and a half) for subsequent periods. For week-end overtime the rates are generally higher. In the industries covered by collective agreements they are often 50 per cent. above ordinary rates for Saturday afternoon overtime, though in some cases time and a quarter and in others double time is paid; and they are mostly double the ordinary rates for overtime on Sundays, though time and a quarter or time and a half is paid in a few cases. The principal industries in which a higher rate than time and a quarter is fixed for all overtime worked on weekdays are coal mining, in which a general agreement provides that all overtime worked between the commencement of the Sunday night shift and the end of the following Saturday morning shift shall be paid for at the rate of time and one third, and engineering, shipbuilding, electrical installation, the jute industry, lace curtain manufacture, baking in Scotland, dock labour, cement manufacture and patent fuel manufacture, in all of which overtime is paid for (as far, at least, as time-workers are concerned) at 50 per cent. above the ordinary rates. On the other hand, in the road transport industry, in the Birmingham jewellery and electroplate industry, and in the milk distributive trade, ordinary rates are paid for an initial period of overtime on any one day, higher rates not being paid until after the expiration of the period specified; such cases, however, are exceptional in the industries for which overtime conditions have been standardised in collective agreements.

In the case of piece-workers, the conditions vary considerably. In the engineering industry, the piece-worker on overtime receives 50 per cent. of his time-work rate, in addition to his actual earnings on piece-work. In the shipbuilding industry, overtime worked by

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\* See pp. 433-443.

piece-workers is paid for at the rate of time and one third, calculated on average hourly piece-work earnings. These rates apply to workers on day-shifts, workers on night-shifts being paid higher overtime rates both in engineering and in shipbuilding. In certain trades, including textile bleaching, dyeing, printing and finishing in Lancashire and Scotland, and woollen manufacture in Yorkshire, a specified amount per hour is added to piece-work earnings. In some other trades, including carpet weaving, printing, and woollen manufacture in Scotland, and in railway shops, a fixed proportion of the time rates paid to similar classes of workers is added to the earnings.

#### **Recent changes in rates of payment for overtime.**

There does not appear from such information as is available to have been any very marked and widespread change during recent years in the ratio of overtime rates to ordinary day-work or piece-work rates of pay, the most common rate of payment in 1914 having been, as in 1925, time and a quarter, with ordinary time rates in some industries and time and a half in others, supplemented in some industries by higher rates after the expiration of a specified period of overtime. There appears, however, to have been a tendency in some industries, in which the overtime rates formerly varied in different districts or among different classes of workers, to raise the ratio, in the districts or occupations in which it was relatively low, to correspond with that recognised in the districts or occupations in which better conditions prevailed. In the building industry, for example, there were a number of districts in which, as recently as the year 1918, a rate of time and a quarter was paid up to 7 or 8 p.m., or even 10 p.m., whereas in other districts time and a quarter was paid for the first two hours, with time and a half afterwards. Under the National Working Rule Agreement now in operation, uniform rates of time and a quarter for two hours, followed by time and a half for subsequent periods, have been adopted. In the engineering and shipbuilding industries the rates in 1918 varied in different districts, being (for time-workers) time and a quarter for two hours, followed by time and a half, in some cases, and time and a half from the outset in others. General agreements now provide for time and a half for all overtime, followed, in the engineering industry, by double time after midnight. In the railway service overtime before the war was paid for at ordinary time rates in some cases, and at the rate of time and a quarter in others (varying with different companies, different districts, and different classes of workers). The existing agreement provides for payment (in the case of day-workers) at a rate of time and a quarter.

In addition to the increases in overtime rates which have resulted in some industries from this levelling-up tendency, there have, no

doubt, been increases in a number of cases in which general agreements, regulating overtime conditions, have only come into operation in recent years: for example, in the cement, jute, patent fuel, electrical installation, and spelter industries, the general agreements now in operation fixing overtime rates at 50 per cent. above ordinary rates were not in operation before the war, and it is probable that, prior to the signing of these agreements, some firms were paying less than time and a half. In the electrical installation trade in London, time and a quarter was fixed before the war, as compared with the rate of time and a half in June, 1925.

#### Restrictions on overtime working, 1914.

In a few agreements there were provisions in 1914 as to restrictions on overtime. In the engineering industry a general agreement provided that no workman should be required to work more than 32 hours overtime in any four weeks after full shop hours had been worked, subject to the condition that there should be no restriction in the case of breakdown work, repairs, trial trips, urgency and emergency, etc. At Cardiff, Newport and Swansea, an agreement in relation to ship repairing and boiler work provided that no man should work more than one whole night, or two half turns, as overtime in any one week while competent men were idle in the port, except on finishing jobs which could be completed in not more than three hours. If more overtime was required on particular jobs such overtime was to be given to unemployed workpeople in the towns. This arrangement was liable to suspension whenever the demand for men was in excess of the supply. In the case of ship repairers on the Thames no man was allowed to work more than 24 hours continuously, unless his job could be finished in another half-day. Overtime in the boot and shoe manufacturing industry was limited to five hours in any one week and to not more than three consecutive weeks. There were also restrictions on the overtime to be worked by certain classes of printing trade operatives in London.

The restrictions of the type described above were less numerous than they are at the present time, but it should be noted that in 1914 the Factory and Workshop Acts had more practical effect in limiting overtime than they have in 1925. The maximum hours of labour of women and young persons fixed by these Acts ranged, as mentioned above, between 55 and 60 hours per week. The normal hours of labour in 1914 were generally in excess of 50 per week, and in a large proportion of industries were between 54 and 56 per week. Thus, the margin of hours which could be worked as overtime by women and young persons was appreciably lower in 1914 than in 1925, when the normal hours are usually 48 or less per week.

In the case of underground workers in coal mines, the Coal Mines Regulation Act, 1908, restricted overtime to one hour a day on sixty days of the year.

**Restrictions on overtime working, 1925.**

The great majority of collective agreements relating to overtime conditions contain no provision imposing restrictions on the amount of overtime which may be worked; but in some industries the agreements do include clauses embodying such restrictions. Among the latter are the building, engineering, shipbuilding, woollen and worsted, lace, silk, hosiery, bleaching, dyeing, finishing, &c., carpet, printing (certain sections), paper-making, furniture (certain districts), baking (certain districts), and various other industries. Details of the restrictions imposed by the agreements in each of these industries are given in a note appended to this memorandum.\*

As to statutory restrictions, the provisions of the Factory and Workshops' Acts and of the Coal Mines Acts, 1908 and 1919, both of which have been mentioned above in this memorandum, remain in force. The Employment of Women, Young Persons and Children Act, 1920, which, *inter alia*, prohibits generally the employment of women and young persons under 18 at "night" (as defined), contains interesting provisions as to the conditions under which they may be employed within the otherwise prohibited part of the day for the purpose of working two shifts. The Act provides that on the joint application of the employer and the majority of workpeople concerned (i.e. in a factory or group of factories) the Home Secretary may make orders authorising the employment of women and young persons aged 16 and over in shifts of not more than eight hours during certain hours (between 6 a.m. and 10 p.m.), otherwise prohibited by the Act. The total number of orders issued under the above provisions up to the end of 1924 was 425. According to the Annual Report of the Chief Inspector of Factories, dated March, 1925 (Cmd. 2437), probably not more than one-third of these were in use at the time of the report, while a certain number had never been put into operation. The Act further provides that, if a joint representation is made by organisations representing a majority of the employers and workpeople in the industry, or section of industry, concerned, to the effect that orders as described above should not be made, the powers of the Home Secretary to make orders in that industry shall cease until the representation is withdrawn; and, if the representation so requires, any order previously made shall, after a prescribed period, cease to have effect. The Chief Inspector's Report records that no use has been made of this procedure.

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\* See p. 136.

## APPENDIX.

RESTRICTIONS ON OVERTIME WORKING, EMBODIED IN  
COLLECTIVE AGREEMENTS BETWEEN EMPLOYERS  
AND WORKPEOPLE (JUNE, 1925).

*Building Industry.*—The Working Rule Agreement adopted by the National Wages and Conditions Council (representing nearly all the principal Employers' Organisations and Trade Unions in the Building Industry throughout Great Britain) provides that overtime shall not be worked except in cases of urgency, and shall not continue for more than four days consecutively, unless by consent of a local joint committee of employers and workpeople. All overtime extending beyond one day has to be reported immediately to the local joint committee.

*Electrical Contracting Industry.*—An agreement between the National Federated Electrical Association and the Electrical Trade Union provides that where overtime is necessary the men shall not be required to work more than 30 hours in any four weeks, except that no restriction is imposed in regard to work necessitated by breakdown, repair, &c.

*Engineering Industry.*—Agreements which have been arrived at by the Engineering and Allied Employers' National Federation and the principal Trade Unions in the engineering industry provide that systematic overtime is deprecated as a method of production, and that when overtime is necessary, no union workman shall be required to work more than 30 hours' overtime in any four weeks after full shop hours have been worked, allowance being made for time lost through sickness, absence with leave, or enforced idleness; but that in cases of breakdowns, repairs, replacements, and alterations (whether for the employers or their customers), and in certain other emergencies, overtime is not restricted. It was agreed in 1922, following a dispute in the engineering industry, that the employers have the right to decide when overtime is necessary, the workpeople or their representatives being entitled to bring forward any cases of overtime they desire discussed.

*Shipbuilding and Repairing.*—An agreement made in 1923 between the Shipbuilding Employers' Federation and the Engineering and Shipbuilding Trades' Federation provides that "systematic overtime is to be deprecated as a method of production, and no workman shall be required by the employer—unless by special arrangement—to work more than 30 hours' overtime in any four weeks. In the following cases, however, viz., ship-repairing, launches, trial trips, work subject to tidal considerations, breakdown work, plant installations and plant repairs, agreed urgency and emergency, and linking up day-shift and night-shift, there shall not be any restriction of overtime."

*Woolen and Worsted Industry.*—The Joint Industrial Council for the Industry has agreed that it is the intention of the Council that overtime should not be worked by women and young persons, except in cases in which special sanction is given by the Council owing to unbalanced plant or a temporary phase of trade. Firms desirous of employing such persons on overtime are required to apply to the Council for sanction, stating the reason for which overtime working is required, the period over which it is proposed that overtime working shall extend, and the number of persons affected by the proposal.

*Bleaching, Dyeing, Printing, Finishing of Textile Fabrics.*—In this industry agreements between the employers' organisations and the trade unions in the North of England provide that overtime shall be strictly limited, and that not more than 60 hours shall be worked by a workman in any one week.

*Lace Curtain Manufacture.*—It is agreed between the employers' organisations in Nottingham and district and in Scotland and the trade unions representing lace curtain makers and auxiliary workers, that overtime is to be limited to ten hours per week for any operative; that intimation is to be



given by employer and employee to their respective secretaries when overtime is worked; and that if, in the opinion of either side, unreasonable advantage is taken of overtime, the matter is to be referred to the Joint Board representing the employers' and workers' organisations.

*Carpet Manufacture.*—At a meeting of the Joint Industrial Council for this industry, held in July, 1922, it was agreed that overtime could be worked up to a maximum of eight hours per week by agreement between firms and their employees, but that for periods longer than eight hours per week, it could be worked only with the permission of the Executive Committee of the Trade Union concerned.

*Printing Trade.*—There are several cases of limitation of overtime in the agreements made between the Employers' Associations and Trade Unions in this trade. In newspaper printing offices in London the maximum amount of overtime allowed for compositors and press correctors is eight hours per week, with the further proviso, in the case of Sunday papers, that compositors working overtime must not continue longer than a day and a night consecutively, or be called upon to repeat the same in one week; for lithographic artists, designers, engravers and process workers the limit is 15 hours per fortnight, subject to exceptions being made in cases of emergency; in the case of electrotypers and stereotypers, the agreement stipulates that no man shall be asked to work more than five consecutive hours' overtime. In newspaper and book and jobbing offices in the provinces, overtime for compositors is limited to 16 hours in any two consecutive weeks. The limit does not apply in cases of breakdown or emergency, and regular Saturday afternoon work in newspaper offices is not counted as part of the 16 hours. In book and jobbing printing offices in London the limit in the case of compositors is fixed at 24 hours in any four weeks, or nine hours in any one week. In the case of machine managers, overtime working is limited to 32 odd hours, or three nights in any four weeks, with a maximum of nine odd hours or one night in any one week; and for warehousemen, cutters, packers, and porters overtime is allowed to be worked only on one night in the week (subject to a maximum of eight hours), except in the case of emergency or special work; for monotypers an agreement between the London Master Printers' Association and the Amalgamated Typefounders' Trade Society stipulates that "ordinary overtime shall be limited to 40 hours per month," and in the case of overtime on night shifts to 20 hours per month. The working rules agreed upon for compositors between the Scottish Alliance of Employers in the Printing and Kindred Trades and the Scottish Typographical Association provide that "not more than 27 hours' overtime may be worked in any calendar month, nor more than nine hours' overtime in any week, except in case of emergency." Emergency work is to be arranged for between the firm and representative of the branch of the trade union. It is also specified in this agreement that overtime shall be discouraged, and, though emergency work is recognised as at times unavoidable, every effort shall be made to abolish systematic overtime. Provision is made for complaints as to excessive overtime to be dealt with by a Conciliation Committee composed of representatives of employers and workpeople. An agreement affecting electrotypers and stereotypers in Glasgow provides that no workman shall work more than 15 hours' overtime in any week or 24 hours in any two consecutive weeks. Provisions relating to cases of emergency and systematic overtime, similar to those in the preceding agreement, are included.

*Paper Making.*—By an agreement between the Employers' Federation of Paper Makers of the United Kingdom and the Trade Unions, the hours of shift workers in mills working three consecutive shifts are fixed at 132 in three weeks, a further six hours being allowed to be worked by mutual arrangement at the individual mills. No further extension of hours is permissible, except after consultation between the District Board of the Federation and the Trade Unions.

*Furniture Manufacture.*—A national working agreement for Scotland between the Scottish Furniture Manufacturers' Association and a Committee representing the Trade Unions concerned, provides that "overtime shall be limited to seven hours per week in workshops, but shall be unlimited outside workshops; no continuous overtime to be worked when additional suitable workers are available, except in the case of one-day jobs, or removals, or jobs more than five miles from workshop." In the Edinburgh district overtime for french polishers and upholsterers is limited "to 12 hours per week in workshops, except for undertakings." An agreement made in November, 1913, for the Birmingham district provides that not more than two hours' overtime shall be worked in any one day, or more than a total of ten in a week.

*Baking Trade.*—There is no agreement regulating conditions in this trade on a national basis, but in certain local agreements provision is made for the limitation of overtime. In Nottingham and district, overtime for women is limited to six hours in any one week, and in certain districts in Scotland (including Dundee, Ayrshire, Bathgate and Perth), the maximum amount of overtime allowed on Saturday afternoons is fixed at 1½ hours (ovensmen being excepted from this rule), and provision is made for the avoidance of systematic overtime working.

*Other Trades.*—In the *basket-making industry* in the Midland Counties an agreement between the Employers' Association and the Trade Union provides that no overtime shall be worked except on specially urgent works and with the consent of the majority of the workmen at the shop concerned. Continuous overtime may be worked only if additional men cannot be found by the Trade Union, but in any case the amount of overtime is not to exceed eight hours per week. In the *export packing trade* in London it is agreed that systematic overtime shall be avoided where possible, but, if necessary, an employee may work two hours each night for four nights. This total of eight hours in the week may be extended to ten, provided notification be made to a joint sub-committee, but overtime over ten hours in the week shall be worked only after special permission has been obtained from the joint sub-committee. The bye-laws for the *granite trade* of Aberdeen, agreed upon by the Aberdeen Granite Manufacturers' Association and the Building and Monumental Workers' Association of Scotland, provide that no operative shall work more than 144 hours' overtime in any year, or 24 hours in any month, or 12 hours in any week, or three hours in any day. This limitation does not, however, apply to overtime worked by polishers and toolsmiths in connection with a breakdown of machinery.

## THE REGULATION OF HOURS OF LABOUR ABROAD.

[Furnished by the Ministry of Labour.]

Generally speaking, it is true to say that prior to the outbreak of the war hours of labour for adult males in foreign countries were not subject to legislative restriction, though there were in existence various statutory prohibitions of exceptionally long hours in a few occupations of a particularly rigorous or dangerous nature; such restrictions, however, affected only an extremely small fraction of the population in a few countries. The only instances of hours of adult males being restricted to eight a day or forty-eight a week were to be found in New South Wales and New Zealand. In the former case, under an Act passed in 1912, the Arbitration Courts were required to apply the principle of the eight-hour day in making their awards, and the New Zealand Factory Act of 1908

restricted the hours of labour of adult males to forty-eight a week. Hours of work in factories were, also, limited to sixty-four per week in Switzerland, sixty-six in Austria, sixty-seven and a half in Russia, and seventy-two in France.

It has been explained earlier in this Chapter\* that substantial reductions of hours were made in practically all occupations in Great Britain in the course of the years 1919 and 1920, but these reductions were the result of the carrying out of voluntary agreements, and, except in the case of coal mining, were not the consequence of legislation. More or less contemporaneously with the reduction of hours in Great Britain there was a reduction in most of the industrial countries of the world; and in a large number of countries legislation restricting hours of labour has been enacted either during or since the war. For the most part this legislation has been based on the principle of the eight-hour day or the forty-eight hour week. The countries in which laws of this kind in some form or another exist, so far as is known to the Ministry of Labour, are :—

Argentina	†Italy	†Queensland
†Austria	Latvia	Roumania
†Belgium	Lithuania	Serb-Croat-Slovene
†British Columbia	Luxemburg	Kingdom
Bulgaria	Mexico	Soviet Russia
Costa Rica	†Netherlands	Spain
Chile	†New South Wales	†Sweden
†Czechoslovakia	†New Zealand	†Switzerland
Denmark	†Norway	†United States of
Ecuador	Panama	America (certain
Finland	Peru	States)
†France	†Poland	Uruguay
†Germany	Portugal	†Western Australia.
Greece		

It should also be mentioned that, India having ratified the Washington Hours Convention, hours of labour in that country are subject to a limit of sixty hours per week.‡

\* See p. 128.

‡ In regard to the position in Japan, the following statement was made by the Minister of Labour in the House of Commons on 24th February, 1926 :—“ The legal maximum working hours under the Japanese Factory Act are fixed at twelve daily, including one compulsory rest hour, for women and young persons. An Amending Act of 1923 provided for the reduction of this maximum to eleven hours, including one compulsory rest hour, but this amendment has not yet been put into operation. According to statistics supplied by the Japan Cotton Spinners' Association, and published by the International Federation of Master Cotton Spinners' and Manufacturers' Associations, which are the latest figures in my possession, the actual working hours in cotton mills in Japan, in the year 1924, averaged nine and a quarter per shift, two shifts being worked by the mills per day.”

In the present memorandum it is proposed to give some account of the current legislation in the industrially more important foreign countries and in certain of the British Dominions, the countries dealt with being those marked † in the foregoing list. It should be explained that the memorandum does not embody the results of any special enquiry, but merely summarises the information available to the Ministry of Labour, and consequently it should not be read as giving an authoritative statement of the legal position in any of the countries mentioned. The memorandum does not deal with restrictions of hours in agriculture.

#### **Austria.**

##### *The Law and its Application.*

The eight-hour day was provisionally introduced in Austria in December, 1918, and was regularised by an Act of December, 1919. This provides that in all undertakings subject to the provisions of the Industrial Code (practically all industrial and commercial establishments) working hours, excluding rest periods, are not to exceed eight in a period of twenty-four hours. It is also provided that the hours of women and males under eighteen years of age are not to exceed forty-four per week. Where working hours are laid down in a collective agreement, however, the eight-hour rule does not apply provided, that the total weekly hours specified in the agreement do not exceed forty-eight; the daily hours agreed upon will then become the legal maximum.

The Act of December, 1919, also provides that the working hours in the railway and postal services and in steamship undertakings are not to exceed forty-eight hours a week, exclusive of rest periods. A special Act of July, 1919, limits the actual working hours in the mining industry to eight hours in twenty-four, exclusive of breaks spent above ground, and longer daily hours may be fixed by collective agreement provided that the total number does not exceed forty-eight per week. Another Act of April, 1919, limits the hours of work in bakeries to eight hours in twenty-four, exclusive of periods of rest, night work and Sunday work being, as a rule, prohibited.

##### *Exemptions.*

The Act of December, 1919, provided for the establishment of a Joint Advisory Council of employers and workpeople to advise the Government regarding exemptions from the law, and as a result various administrative instructions have been issued allowing exemptions, either generally or for certain trades and industries. One of the most important of these exemptions is that excepting certain industries from the obligation to institute the forty-four hour week for women and young persons, the industries being those in which the work of women and young persons is so closely

connected with that of the male staff that the application of the law would result in limiting the working hours of the male staff to forty-four, or in no employment being given to women at all. This exemption is conditional on its being embodied in a collective agreement or in an individual contract of employment. Certain occupations have been excepted from the operation of the Act altogether, such as doorkeepers, porters, fire and night watchmen. In the transport industry generally the hours of most classes of employees may be arranged so as not to exceed ninety-six hours in two weeks. This may be extended by sixteen hours of overtime within the two weeks without official authorisation. In the continuous industries working hours may be arranged so as not to exceed one hundred and sixty-eight in three weeks, in order to provide for the relief of shifts. Regulations giving various forms of elasticity to the administration of the law have also been issued affecting the building industry, butchers' establishments, the manufacture of paper, cellulose and pottery, brickmaking, breweries, saw-mills, corn mills and certain other occupations.

#### *Effects of the Law.*

So far as is known, no statistics exist showing the hours actually worked in industry generally, and views, both favourable and unfavourable, have been publicly expressed as to the value of the legislation and its effect upon industry. In May, 1924, the Minister of Social Welfare said that there was no evidence as to the effect of the eight-hour day on the national economy in view of the fact that the economic organisation of Austria was not working at full pressure and that industrial equipment was not yet perfected.

### **Belgium.**

#### *The Law and its Application.*

An Act prescribing the eight-hour day and the forty-eight hour week came into force in October, 1921. The eight-hour day was already in operation in certain industries in consequence of collective agreements, and the object of legislation was to render its application general. The Act applied to practically every industrial occupation and to the offices of commercial undertakings. The scope of the Act was extended in October, 1923, to apply to retail shops, hotels, restaurants, &c. ; but the Act does not apply to persons in position of management, commercial travellers, home workers, and the non-industrial employees of provincial or municipal authorities. The hours of persons employed in underground workings are limited to eight a shift, descent and ascent included.

#### *Exemptions.*

Provision may be made by Royal Order for the averaging of hours over the week, or longer period. To give examples, where there is a joint agreement for Saturday afternoon to be a holiday,

a nine-hour day subject to a forty-eight hour week may be authorised. Again, where work is organised in shifts, normal hours may be extended on condition that the average hours of actual work, calculated over at least three weeks, do not exceed eight in a day and forty-eight in a week, with a daily maximum of ten hours. Royal Orders may also allow the distribution of hours over longer periods than one week in industries where such exceptional circumstances have arisen as would render inapplicable the normal limits, and where joint agreements to this effect have been concluded; in undertakings using the wind or water as the sole motive power, and in seasonal industries. As to this latter class, a series of Orders authorise longer hours during a certain number of months subject to a corresponding reduction over a period sufficient to restore the average of eight hours a day. Examples of the industries to which such Orders have applied are the building trades, certain restoration work in the devastated areas, automobile and bicycle manufacture, the clothing industry, the manufacture of boots, and a variety of undertakings, e.g., laundries, tramways, &c., in holiday resorts.

In the case of continuous processes, persons may be employed for fifty-six hours a week, calculated over a period of three weeks. Persons working fifty-six hours a week must, however, be granted compensatory holidays of a total duration of twenty-six full days in the year. The hours of persons engaged on preparatory or accessory work may be extended by not more than two a day, on the same conditions as to compensatory holidays.

Hours have also been extended by Royal Order in industries the raw materials of which are liable to rapid deterioration, and in industries involving operations the duration of which cannot by reason of their nature be exactly foreseen. Examples of these are plate-glass-making, electro-plating, the loading and unloading of goods where these operations are accessory to an industrial undertaking, and certain processes in the manufacture of artificial silk.

Authorisations to work in excess of the normal limits may be granted by the Minister of Industry and Labour as the result of a joint agreement in order to enable unusual pressure of orders occasioned by unforeseen events to be met. Such authorisations may not be granted for more than three months in the year, nor may the normal working day be extended in this way by more than two hours.

#### *The Effects of the Law.*

The Central Committee of Manufacturers stated in December, 1923, that the enforcement of the Act had led to a general inadequacy of production and the necessity of importing increasing quantities of fuel, particularly coal, as well as to an exodus of skilled workers,

an increase in cost of production and the depreciation of the Belgian franc. In October, 1923, the Central Economic Committee, which had been set up as the result of a movement on the part of consumers to bring about a reduction in the cost of living, made an inquiry into the effects of the law regarding the eight-hour day. Summarising the result, the Chairman stated that the introduction of the eight-hour day had been followed by a reduction in output proportional to the reduction in daily hours, and even in some cases of the hourly rate of output. A report issued by the Committee in December, 1924, contains similar conclusions as to cost of production and output.

#### Czechoslovakia.

##### *The Law and its Application.*

The Czechoslovakian Republic has ratified the Washington Hours Convention.

Hours of work in industry are primarily governed by an Act of December, 1918, which applies to practically every occupation, both industrial and commercial, and also under certain conditions even to domestic work. The Act provides that normal hours of work, which may be exceeded only in specified cases and under certain conditions, are to be eight hours a day or forty-eight hours a week. The distribution of hours (either by the day or by the week) and the arrangement of rest periods must be settled by agreement between employers and workpeople.

The enforcement of the Act in railway undertakings lies with the Minister of Railways, and in practice a distinction is made between actual work and work involving in addition a certain number of hours of attendance. For actual work, hours may be distributed over a period of four weeks on condition that the maximum of one hundred and ninety-two is not exceeded. For work involving a period of mere attendance, the total hours may be extended provided that the employees are not required to do actual work for more than six hours per day and that overtime rates are paid for attendance in excess of the normal eight hours.

##### *Exemptions.*

Total exemption from the restrictions on working hours is allowed in undertakings with continuous processes, or in undertakings requiring continuous attendance and supervision, subject to the condition that the weekly rest of thirty-two hours, coincides with a Sunday at least every three weeks. Partial exemptions are allowed for certain employees in public utility undertakings whose hours of actual work do not exceed six but who may be required to attend for a longer period, for persons employed in preparatory and accessory work and for persons whose presence is necessary to ensure continuity during changing of shifts.

Temporary exemptions are allowed if of small duration by the Factory Inspectorate, or if longer by higher authorities, in cases of accident or when necessitated by the general interest or other urgent cause, it being impossible to take other steps. Overtime granted as a temporary exemption may not fall within more than twenty weeks per annum, or exceed two hundred and forty hours per annum.

#### *The Effects of the Law.*

So far as is known, no statistics exist showing the actual hours worked in industry. According to a report entitled "The Eight-Hour Day Act and its Application to Agriculture in Czechoslovakia," published by the International Labour Office in 1921, the application of the Act to industry gave rise to no serious disputes and the Act was strictly observed. The issue of the Press Reports of the International Federation of Trade Unions for 18th December, 1924, contains the results of a recent inquiry in the textile industry of Czechoslovakia. In the weaving industry it is stated that, taking one as the standard of output per hour in 1913, when the working week was fifty-eight hours, it was found that the equivalent output in 1922 was 1.6 and in 1923 1.79. In spinning, the investigation showed that the total number of units of length carded in 1914, when the working week was fifty-eight hours, was 14.57 and in 1923 14.69.

### **France.**

#### *The Law and its Application.*

The eight-hour day or the forty-eight hour week was established, in principle, in France by an Act of April, 1919, which prescribes that the hours of effective work of all employees shall not exceed eight a day or forty-eight a week, or an equivalent limitation based upon a period of time other than the week, in industrial and commercial establishments or in business premises of any kind connected with them, whatever their nature. The Act is in practice applied by administrative regulations to given trades or occupations, either for the whole country, or for single districts. These regulations are issued as decrees over the signature of the President, and before their issue the employers and workpeople concerned must be consulted. A large number of such regulations have been issued. Though it is obvious that this method of applying the principle of the eight-hour day must provide a formidable administrative task, the method was apparently adopted with a view to applying the principle to each industry with the desirable elasticity. Among the more important industries covered by these regulations are the boot and shoe trades, the textile trades, the clothing trades, the



engineering and metal trades (including iron and steel and ship-building), dock labour, the building trades, gas undertakings, electric power undertakings, banks and insurance companies and the chemical industry.

Hours of work in mines and quarries are governed by a special Act of June, 1919, under which hours must not exceed eight per day for persons employed underground, the period of eight hours to be calculated from the time when the first to descend enters the shaft to the time when the last to ascend arrives at the surface. The Act permits the calculation of working hours over a weekly period, which must not exceed forty-eight hours for persons employed on work which has to be carried on continuously. Exceptions from these provisions are permissible only in the case of war or threat of war.

The question of the application of the Act of April, 1919, to the railways was examined by a special Joint Committee, and subsequently the provisions of the Act were applied by Ministerial Orders in 1919. No sharp distinction was made between actual work and time on duty, with the result that the ratio of staff to output, which in 1913 was 0.88 workers per thousand train-kilometres, rose in 1920 to 1.86 workers per thousand train-kilometres, or an increase of 112 per cent. For 1921 the corresponding increase was 80 per cent., the railway deficit being 1,200 million francs. With a view to remedying this situation, amended regulations were issued by Presidential Decree and came into force in October, 1922. They applied to all persons employed on railways, except the train staffs, i.e., engine drivers, stokers and guards, whose hours are still regulated by the Ministerial Orders of 1919. The new regulations, however, gave rise to complaints and protests from the staffs, and consequently less elastic regulations were issued in January, 1925; these are at present in operation. The position consequently is now that the hours of train staffs are eight a day on an average, calculated over a maximum period of ten days. For grades other than train staffs, the maximum normal hours are 2,384 per annum, i.e., an average eight-hour day for a working year of two hundred and ninety-eight days (after allowing for the fifteen days paid annual holiday to which French railwaymen are entitled), but within that annual maximum hours can be averaged over a period of ten days (exceptionally, forty-five days) with a maximum of ten hours on any one day. Seventy-five hours annual overtime is allowed for exceptional pressure of work, and an additional one hundred hours may be granted by Ministerial Order. Similar provisions apply to the workshop staffs.

The application of the Eight-Hour Day Act to the mercantile marine appears to have met with very much the same difficulties as those encountered in the case of the railways. Three sets of regulations have been issued at different times, while the question

has been examined by a Joint Committee. The position shortly is, at present, that while ships are at sea the crew is divided into three (or, in certain cases, two) watches, but there is no limitation of the captain's discretion as to the handling of the vessel. In port, however, hours may not exceed eight per day, save in exceptional circumstances in order to secure the execution of supplementary work or with a view to accelerating commercial operations.

#### *Exemptions.*

As has been explained, the French Eight-Hour Day Act does not apply to any industry or occupation except by administrative regulations regarding that industry or occupation. The regulations may allow for the distribution of hours over a period of time other than the week and they must contain provisions concerning permanent exemptions and temporary exemptions. Permanent exemptions are granted in various cases, e.g., for preparatory and accessory work, for work involved by the necessity of co-ordinating two successive shifts; for work requiring the presence of specially skilled workers for more than the normal eight hours, and for work broken up by long rest periods. In all these cases, extensions from one to two hours per day are generally allowed. Temporary exemptions are allowed in case of accident, in the interests of national safety, and in order to deal with exceptional pressure of work. The amount of overtime authorised for this last class generally ranges from sixty to one hundred and fifty hours a year, and an employer who desires to avail himself of facilities for temporary exemptions must forward in advance to the departmental inspector a declaration as to the reasons, the number of workpeople affected, and the time covered by the exemption reckoned in days and hours.

#### *The Effects of the Law.*

It is not known how many persons to date have been brought within the scope of administrative regulations under the Eight-Hour Day Act. In February, 1922, however, the Minister of Labour of the time announced that twenty-four administrative regulations had then been published, covering nearly three million workpeople, and that eighteen regulations, covering about two million workpeople, were under consideration. It might be mentioned that the industrial population of France has been estimated at eight million.

There is practically no information available regarding the hours actually worked in France under the régime of the Eight-Hour Day Act, but the administration of the Act has been the subject of a certain amount of criticism based on the interpretation of "temporary exemptions" adopted in the administration of the Act. It has indeed been stated by the critics that a nine-hour, or even a ten-hour day, is in fact permitted. In May, 1923, the Minister of

Labour, in reply to a question on the subject in the Chamber of Deputies, took the example of the wholesale grocery trade in the Côtes du Nord and gave a calculation to show that the effect of distributing over the year the extra hours allowed for exceptional pressure of work and to make up for public holidays was to increase the working day by about forty-five minutes; in other words, an average working day of something like eight and three-quarter hours was permissible. Criticism of the administration continued, and in December, 1924, during a debate on the subject in the Chamber, several speakers contended that the provisions of the administrative regulations regarding exceptions were applied in such a way that in actual practice longer hours than eight a day were worked. It was also stated that there were violations of the Act, since there were only one hundred and forty-two inspectors to enforce not only the Eight-Hours Act but also numerous other industrial laws. It was also maintained in the debate that in increasing working hours to more than eight a day employers were not violating the Act, because it did not lay down that only eight hours should be worked but stated that workpeople should perform eight hours of effective work. The Minister in replying said that the question of tightening up the clauses regarding overtime in the existing Decrees was under consideration.

In order to ascertain the practical effect of the Act on production, manufacturing undertakings were requested at the end of 1919 to furnish reports showing the output before and after the introduction of the eight-hour day. The results of this investigation are being published in the Bulletin of the French Ministry of Labour, and up to date detailed reports have been given for fifty-five undertakings. From the evidence of these reports, the Act and the administrative regulations made under it have had practically no unfavourable results, and output has been maintained. It is stated that in the main this seems to have been due to the introduction of improved machinery and to the acceptance by the workpeople of the piece-work system.

#### **Germany.**

##### *The Law and its Application.*

The eight-hour day was established in Germany for industrial employees in November, 1918, and was extended to non-manual workers in March, 1919. This was done by Order, but the two Orders were allowed to lapse in November, 1923. After a period of one month, during which there was no legal regulation of hours in such occupations, the Orders were brought into force again, but with very important amendments, in December, 1923, by a Provisional Order which was still in force at the end of 1925.

The original Order of November, 1918, provided that the normal hours of work, excluding intervals, should not exceed eight a day in all industrial establishments. There were certain provisions in regard to continuous processes; and if short time was worked by consent on Saturdays the hours so lost might be spread over the other working days. In certain circumstances, exemptions might be granted by the factory inspectors. The Order of March, 1919, merely applied similar provisions to commercial, clerical and technical staffs, &c.

The Order of December, 1923, confirmed the eight-hour day principle, but provided that this limit may be extended in certain cases and under certain conditions. These exemptions are shortly explained below, but the general effect of the exemptions has been to make a ten-hour day possible. The history of the matter consequently seems to be that in 1918 and 1919 the eight-hour day was fairly strictly applied to manual and non-manual workers, but that since December, 1923, though the eight-hour principle has been confirmed, very wide latitude is admitted.

The history of the application of the eight-hour day on the State railways is very similar. A number of Orders were issued, but that now in force was issued in January, 1924. In this the previous limits of eight hours per day, forty-eight hours per week, or two hundred and eight per month were abandoned, except for continuous and particularly exacting employment, and the maximum working hours fixed at ten per day on an average, or sixty per week, or two hundred and sixty per month of thirty days. There are multifarious provisions as to what constitutes actual work and the proportions in which time spent waiting for work and travelling to and from work, &c., may be counted as actual working time.

There are also special provisions regarding the mercantile marine under which, shortly, the hours of work for seamen must not exceed ten a day when vessels are in harbour. A special section of the Order of December, 1923, relates to mining and provides that the hours of persons working underground in hard coal mines must not exceed eight a day except when urgently necessary in the public interest, in which case hours may be increased to ten a day; or when it has been proved in practice that longer hours would have no ill effects, in which case they may be eight and a half a day.

#### *Exemptions.*

The Order of December, 1923, while retaining the principle of the eight-hour day, permits the averaging of working hours over a week or a fortnight, so that hours lost on one day may be made

up by increasing the number of hours on the remaining working days of the same or the following week. Before doing so an employer must hear the representatives of the workpeople, but he is not compelled to accept their views. In the calculation of working time breaks are not reckoned, but presence on duty is counted as part of the working hours. The Order, however, provides that in the case of persons whose work regularly and to a considerable extent entails periods of mere presence on duty, deviation from the strict eight-hour day may be agreed upon by collective agreement between employers and employed, or in default of such agreement under regulations drawn up by the Federal Minister of Labour. In such cases there are no limits on the daily working hours. Employers also have a discretion to increase working hours on any thirty days in the year by not more than two a day beyond eight hours, and hours can also be increased by one per day for women and boys or two per day for men for the purposes of watching premises, cleaning and maintenance work, &c. There are also provisions for the purpose of effecting regular changes of shifts and for the prevention of overtime "in the public interest, especially for the prevention of unemployment and the security of food supplies."

By an important provision of the Order, working hours may be extended by collective agreement beyond the normal eight a day, forty-eight a week, or ninety-six a fortnight; and the general effect of this has in practice been to leave the regulation of working hours to collective bargaining between employers and workpeople. Where no collective agreement of this kind is in existence, a regulation may be made by the competent State official. There are also other exceptions and the Order prescribes that generally working hours must not exceed ten a day except "for urgent reasons of public interest."

The effect of the various provisions for deviation from a strict eight-hour day is to render a ten-hour day possible and its working fairly common.

#### *The Effects of the Law.*

In May, 1924, the General Federation of German Trade Unions undertook an inquiry for the purpose of ascertaining how far the hours actually worked exceeded forty-eight a week. The inquiry covered seven of the most important trades, comprising nearly two and a half million persons, and it showed that 54.7 per cent. of the workpeople worked more than forty-eight hours a week. A similar inquiry was carried out by the Federation in November, 1924, on almost the same basis, and it was ascertained that the percentage of workpeople who worked more than forty-eight hours was then 45.4

The earlier of these two inquiries showed 13 per cent. of work-people working more than fifty-four hours a week and the later inquiry 10·7 per cent. The following table shows the results in more detail :—

Industry.	Percentage of work-people working more than 48 hours a week.		Percentage of work-people working more than 54 hours a week.	
	May, 1924.	November, 1924.	May, 1924.	November, 1924.
Building .. .. .	11·0	10·5	2·9	3·4
Printing .. .. .	49·4	26·5	1·7	0·3
Chemical .. .. .	44·0	38·8	7·8	5·9
Woodworking .. ..	21·4	15·6	4·6	2·0
Metal and Engineering ..	63·5	53·1	21·1	16·6
Boots and Shoes .. ..	14·5	8·1	0·3	0·2
Textile .. .. .	82·4	66·0	4·3	3·3
General Average ..	54·7	45·4	13·0	10·7

The following table (see the Ministry of Labour Gazette, February, 1925) shows the working hours of coal miners in the various districts of Germany in 1913, 1920-23, and 1924 :—

Year.	Working Hours per Shift, including pause, in the following Districts :—					
	Upper Silesia.	Lower Silesia.	Dortmund.	Ruhr.	Aix-la-Chapelle.	Saxony.
1913 ..	9 to 10	8·5	8·5	8·5	8·5	8 to 9
1920-1923 ..	7·5	7	7	7	7	7
1924 ..	8·5	8	8	8	8	8

As regards the effects of the introduction of the eight-hour day on German industry, various statements have been issued by the employers and the trade unions against and in favour of the restrictions of hours respectively, but a satisfactory and scientific estimate of the effects of the restrictions on working hours is almost impossible, since industrial conditions in Germany since 1919 have been affected by so many factors, in addition to the eight-hour day and the variations in the strictness of its enforcement at different times.

### Italy.

#### *The Law and its Application.*

Hours of work in Italy are regulated upon the basis of a Royal Decree which came into force in August, 1923, and which lays down that the normal duration of a working day must not exceed eight hours of actual work, or forty-eight hours a week, for manual and non-manual workers in industrial or commercial undertakings of all kinds. "Actual work" as defined in the Decree means all work which demands assiduous and continuous application. The definition therefore excludes occupations requiring only intermittent work or mere attendance.

An eight-hour day was established in June, 1919, on the State railways, and its application was so rigorous that, it is stated, the number of workpeople on the main lines had to be increased from 147,000 to 206,000 between June, 1919, and June, 1921. A further Royal Decree on the subject was issued in July, 1923, and made a clear distinction between hours of actual work and periods of attendance. This Decree fixed the average hours of railway employees at eight a day and forty-eight a week, excluding breaks of not less than one hour during which a person is free to leave the place of work, and time spent going to and returning from the place of work. Working hours may be increased beyond these prescribed limits only in exceptional circumstances.

Very similar provisions to those applying to the railways regulate the hours of work in public transport services worked under a concession, e.g., certain railways, tramways and inland navigation services.

The hours of work in mines and quarries are limited to eight a day from the time of entry into the pit until the time of exit.

#### *Exemptions.*

The Royal Decree which came into operation in August, 1923, states that where necessitated by seasonal or technical conditions the normal eight-hour day or forty-eight hour week may be extended, provided that the average working hours do not go beyond limits fixed by Royal Decree or by agreement between the parties. A subsequent Royal Decree limited the period during which the statutory working hours may be exceeded to "the period of maximum working intensity" for seasonal industries, and three months for continuous undertakings, but allowed the latter class of undertaking to average working hours on a basis of eight a day or forty-eight a week over the whole year. A list of thirty-six industries entitled to take advantage of these concessions has been issued; and the example may be given here of the textile industry,

in which a sixty-hour week is permissible for a period of three months, with an average of forty-eight hours a week over the year. None of these limitations applies when working hours are extended by agreement between the parties, though such an agreement requires the sanction of the district inspector of labour. In this case, however, overtime must be paid for at rates increased by not less than 10 per cent. and such overtime must not exceed twelve hours a week on an average of nine consecutive weeks.

"Actual work" does not include regularly fixed rest periods or breaks of not less than ten minutes, not exceeding a total of two hours in each working day. Special provision is made for preparatory and complementary work, and temporary exemptions for specified industries may be given by the Minister of Social Economy when these are justified in the general interest.

#### *The Effects of the Law.*

No information is available as to the effects on Italian industry of the coming into force of the Royal Decree in August, 1923, the month after that to which the following figures relate.

An enquiry made by the Italian Minister of Labour in July, 1923, showed that the normal working week of forty-eight hours was the rule for 83 per cent. of the establishments and 88 per cent. of the workpeople covered by the investigation. The following table shows the percentage of workpeople in certain of the principal industries who were employed for forty-eight hours and upwards per week at that time:—

Industry.	Percentage of workpeople who worked per week the hours indicated.		
	Up to 48.	From 49 to 54.	55 and over.
Iron and Steel .. .. .	93·9	5·0	1·1
Engineering .. .. .	93·4	4·3	2·3
Automobile Manufacture .. .. .	98·3	1·5	0·2
Mining .. .. .	89·4	7·4	3·2
Textiles .. .. .	89·2	8·3	2·5
Chemicals .. .. .	92·7	3·2	4·1
Building .. .. .	64·2	17·8	18·0
Transport .. .. .	87·6	8·0	4·4
All industries, including others not shown above .. .. .	88·1	7·4	4·5



### The Netherlands.

#### *The Law and its Application.*

The Dutch Labour Act of 1919, which came into force in October, 1920, dealt with a very wide range of subjects affecting industrial conditions, including the limitation of hours of work. So far the provisions regarding working hours have been applied to factories and workshops and to young persons in offices. The limitation was originally to eight hours a day and forty-five a week, but these were changed by an Act which came into force in June, 1922, to eight and a half hours a day and forty-eight a week. Special provisions entailing a normal eight-hour day apply to miners, stone cutters and compressed air workers, while hours of work for dock labourers are limited by an Act of October, 1914, to ten a day and sixty a week.

As to railway employees, a Royal Decree of February, 1922 fixed, not working hours, but the period of duty, i.e., the period between two uninterrupted rest periods. These periods, roughly speaking, are fixed at twelve hours per day for train, signal and line staffs and ten for other employees.

#### *Exemptions.*

Exemptions from the normal day are numerous and are granted in various ways and by various authorities.

Permanent permission may be granted by public administrative regulations to extend hours beyond the normal in respect of preparatory or complementary work, maintenance work, work which it must be possible to perform at any time, or work which must be carried on continuously in shifts, &c. Such extensions are in most cases to twelve hours a day, sometimes with a limitation to fifty-four a week.

Temporary exemptions may be granted by the district factory inspectors for undertakings in which an accumulation of work usually occurs at certain seasons, or if special circumstances arise. Such exemptions may permit for adult men eleven hours a day, or sixty-two a week. Temporary exemptions may also be granted by the Minister of Labour when in certain industries the employers' and workpeople's associations agree that it is desirable that hours of work should be increased; two thousand five hundred hours of work in the calendar year for adult males may be sanctioned in this way. Temporary exemptions may also be granted by the district factory inspectors in cases of urgent necessity.

#### *The Effects of the Law.*

According to returns made to the Standardisation Bureau of Engineering Employers, 72 per cent. of the workpeople in the metal and engineering trades worked normally a forty-eight hour week during the first half of the year 1924, while 7 per cent. worked

less than forty-eight hours, and 21 per cent. more than forty-eight hours. In the shipbuilding industry it is stated that the hours regularly worked in September, 1924, were forty-eight a week in Amsterdam, fifty-two a week in Flushing and fifty-five to fifty-six and a half in Rotterdam. The *International Cotton Bulletin* for July, 1925, states that the Dutch cotton operatives had agreed to a working week of fifty and a half hours. In addition to these examples, it is known that a large number of permits to extend working hours beyond the normal have been issued by the authorities.

The policy of the Government has been to leave the regulation of hours of work as far as possible to the parties concerned, and the object of the administrative regulations for the application of the Act has been to adapt its principles to the practical requirements of industry. A scientific estimate of the effect of the operation of the law is not available, but the employers have frequently expressed their belief that it is injurious and have agitated for its abolition, while the trade unions advocate its retention.

#### Norway.

##### *The Law and its Application.*

Normal hours of work in factories in Norway had been limited by Act to ten a day or fifty-four a week since 1st January, 1917, and by a subsequent Act to eight and a half a day or forty-eight a week from 1st January, 1920. These provisions apply to practically all factories, quarries and mines, and to certain constructional operations, such as the making of roads, bridges, railways, harbours, &c. For particularly dangerous and strenuous branches of work, however, the Act empowers the Crown to prescribe shorter shifts than the normal eight and a half hours. There is also a special Act of July, 1919, regulating the hours of work of seamen, under which, *inter alia*, the general working hours for deck and engine-room staff are eight in twenty-four hours.

##### *Exemptions.*

In seasonal occupations the normal period of employment may, with official consent, be so arranged as to be longer in the summer than in the winter. Overtime, with a general limit of ten hours a week, may be allowed to avoid deterioration of materials, or in cases in which certain workpeople must begin work before and finish later than the rest, or when necessary in the public interest or at periods of unforeseen pressure. If overtime is worked on more than one day the permission of the factory inspector must be obtained; and overtime must not exceed thirty hours for any person in four consecutive weeks. There are also special provisions for the changing over of shifts and to deal with exceptional occurrences such as accidents.

**Poland.***The Law and its Application.*

The eight-hour day was introduced by a Decree of November, 1918. This was amplified by an Act of December, 1919, which provided that the hours of all industrial and commercial employees should not exceed eight a day, exclusive of rest periods, and six hours on Saturday—a total working week of forty-six hours. The Act, consequently, covered the transport industries, in which, however, working hours might be regulated by a special Order, and the mining industry, in which the time spent in descending and ascending the shaft was to be included in the hours of work.

*Exemptions.*

Various decrees, both permanent and temporary, have been issued permitting extensions of hours beyond the normal limit; for example, in sugar factories during the busy season working hours may be extended to twelve a day; persons engaged in watching premises, etc., may be employed for twelve hours a day; in saw-mills, night work and continuous working on the six week-days are permitted, subject to the introduction of a third shift; and persons employed in the State railway workshops on wagon repairing are allowed to work an additional three hours a day.

In January, 1924, provision was made for persons engaged on preparatory and accessory work to work nine hours a day, and for persons attending installations which cannot be left alone, to work an extra hour a day. If the hours of any person are prolonged under both these provisions, his total hours may not exceed ten a day during the first five days of the week and eight on Saturday.

A Commission of Inquiry was appointed early in 1924 to examine the critical position of the metal, engineering and mining industries in Polish Upper Silesia; and, in accordance with its recommendation, the Government authorised, as a temporary measure, the introduction of a working day of ten hours for persons employed in the iron, lead and zinc industries. The principal reason for this step was said to be the adoption of the ten-hour day in German Upper Silesia; and the Polish Government has twice extended the authorisation. After January, 1925, the authorisation was granted on the basis of an agreement between the employers' and workpeople's organisations concerned. As to the mining industry in Upper Silesia, an agreement was reached in March, 1922, under which hours were extended from seven and a half to eight, the time taken either to descend or ascend the shaft, but not both, as had been the case, being included in the hours of work.

*The Effects of the Law.*

The Polish Ministry of Labour have issued some details of the extension of hours of work sanctioned under the law during 1922 and 1923. The number of overtime hours granted vary from one

to four hours a day, the principal industries affected being the textile, clothing, and the extraction of metals and minerals. The number of extended working hours granted in 1922 was 750,520 among 6,638 workpeople, or an average of 113 overtime hours per person per annum; and in 1923 the number of extended working hours granted was 646,770 among 5,824 workpeople, an average of 111 per person per annum.

It has been stated in Poland that up to the year 1924 the effect of the enforcement of the Act has not been fully felt owing to the protection given to Polish industries by the policy of inflation. Various public bodies in Poland, however, have expressed the opinion that certain branches of Polish industry have suffered on account of the working of a less number of hours than those worked in Germany.

#### Sweden.

##### *The Law and its Application.*

An Act of October, 1919, limits the hours of work to eight a day and forty-eight a week (exclusive of breaks and with the provision that eight and a half hours can be worked per day if the weekly limit is not exceeded) for all persons employed in undertakings, industrial or commercial, in which more than four persons are ordinarily employed. A number of occupations are expressly excluded from the Act, the more important of which are:—work carried on by the State and its ancillary occupations, employment in shops and work in hotels and restaurants, together with employment on the railways and in the mercantile marine, which are the subject of separate provisions. An amending Act passed in 1921 permitted daily hours to be extended to nine, provided that the forty-eight hour week limit was not extended.

Since June, 1920, the hours of train and station staffs and clerical staffs, and persons employed in the shops and on the permanent-way in the railway service have been limited to a normal of two hundred and eight in thirty days, exclusive of breaks, though the hours of permanent-way men may be arranged not to exceed one hundred and ninety-five per thirty days in the winter and two hundred and twenty-one hours per thirty days in the summer. Daily hours must not as a rule exceed eleven for persons at fixed posts, or thirteen for travelling grades, though by agreement these hours may be increased by half an hour a day without the approval of the Railway Board, which, however, may intervene if it is obvious that the longer hours are not necessary. In cases where duties require comparatively little effort, longer hours may be fixed by calculating the actual hours of employment on such duties as equivalent to specified shorter hours of actual work. Longer hours than two hundred and eight in thirty days may also be fixed in respect of

duties which need be performed only during brief periods; and they are also permitted if the normal working of the railway is disorganised. A special Act regulating the hours of work of seamen provides, *inter alia*, that they must not exceed eight a day when the ship is in port.

#### *Exemptions.*

For work of a seasonal nature, for work carried on only for a comparatively short time or involving unusually small effort or serving a purpose of exceptional public importance, or work organised in three shifts which must continue through Sundays, exceptions to the normal daily limits may be authorised officially.

If an employer finds it necessary, in view of special circumstances, he may employ a person without special permit up to fifty hours above the normal limit in a month and two hundred in a year; and in addition, with official permission, hours may be extended by thirty in a month and one hundred and fifty in a year, the total maximum overtime thus being three hundred and fifty hours a year.

#### *The Effects of the Law.*

In 1921, when the hours of permissible overtime were less than they are now, the yearly maximum being two hundred and twenty-five hours as against three hundred and fifty subsequently, an official inquiry was made by the government departments concerned into the effects of the Act on industry. Dealing with prevailing views as to the effects of the Act, the report of the Department of Social Affairs stated that in manufacturing industries the Act had stimulated and improved organisation and equipment, but that disadvantages had been felt chiefly in continuous processes and in seasonal trades owing to the peculiar climatic conditions of Sweden. Still greater difficulties had been experienced in distribution and transport. The limitation of hours of overtime, the report stated, was too strict. As to the social effects of the Act, it was reported that the results of the investigation warranted neither the repeal of the Act nor its continuance in a permanent form. Dealing with the effects of the Act on cost of production, the report of the Board of Trade gave the results of an intensive study of forty-three undertakings, covering about twenty industries, for the year 1920, the first year of the Act's operation, as compared with 1919. It was found that the number of persons employed had increased in the twenty-five undertakings in which production was maintained and diminished in all except one of the eighteen undertakings in which production had decreased. The cost of production had increased in all undertakings, both those in which output was maintained and those in which it had declined. In the former, the increase varied from 1.9 to 5.4 per cent., and in the latter from 3.7 to 11.8 per cent. In regard to the effect of the reduction of hours on intensity of work, it was found generally that

the intensity of work had not increased. The information supplied to the departments by the employers as to the effects of the Act on intensity of work in 1,058 undertakings showed that no change in intensity of work had occurred in 81 per cent. of the cases, that it had decreased in 8·6 per cent. and that it had increased generally in 3·4 per cent., and for certain work only in 7 per cent. of the cases.

Various independent authorities have written on the effects of the Act, but the general purport is that the available evidence is inconclusive, having regard to the fact that the years that followed the passing of the Act were years of economic crisis. It has, however, been asserted that the output per person per week has on the whole diminished in proportion to the reduction in the hours.

#### Switzerland.

##### *The Law and its Application.*

A maximum working day of ten hours had been fixed by a Federal Factory Act in June, 1914, and a forty-eight hour week was established by a Federal Act of June, 1919. The law applies to practically all factories and to the principal workshops of the railways and other transport undertakings. Persons employed exclusively in cleaning operations outside the working hours of the factory and the staffs of commercial and technical offices are excluded, nor does the Act apply to very small workshops, nor to the building industry as such. The Act prescribes a maximum working week of forty-eight hours for undertakings that work in a single shift, but when working hours on Saturday are less than eight and when weekly hours in consequence would be less than forty-eight, the remainder may be made up on the other working days. In 1922 a proposal of the Government to extend hours to fifty-four a week, with a daily maximum of ten, was the subject of a Referendum. Eighty per cent. of the electorate voted, and the proposal was rejected by 430,000 votes to 312,000.

Special provisions have applied since August, 1921, to the railways and other transport undertakings, and to the postal services. These required that the average daily hours should not exceed eight, calculated over a period of not more than fourteen working days. These hours do not include a mid-day break of at least an hour, but half the time spent in travelling to work and back is counted as work. In certain employments (principally in the railway services) which consist mainly in being in attendance, the average hours may be extended to nine. The Federal Council in August, 1923, extended the average working day by half an hour for staff employed on the maintenance of the permanent-way, train staff, and staff employed on the maintenance and cleaning of rolling-stock.

*Exemptions.*

Subject to certain restrictions, the regulations limiting working hours do not apply to accessory work preceding or following the process of manufacture. On continuous processes the working hours of a shift must not exceed an average of fifty-six a week.

Temporary exemptions may be authorised by the Federal Council for particular industries or individual factories or a group of factories so as to increase hours up to a weekly maximum of fifty-two hours, if this is justified by urgent necessity, and particularly if an industry runs the risk of being unable to withstand competition on account of the different duration of working hours in other countries. The authorisations issued under this heading have been for periods varying from a few months to a year. The more important industries affected include various branches of the cotton, silk, linen, embroidery, pottery and chemical industries.

In case of proved necessity, the local authorities may allow overtime up to two hours a day for not more than ten working days, and the Cantonal Government for not more than twenty days at a time. Overtime must be paid for at an increase of 25 per cent. on the normal rates of wages, and permission to work it is not as a rule granted for more than eighty days in the year.

*The Effects of the Law.*

A Census of Swiss factories was made in September, 1923, by the Federal Bureau of Statistics, and the following table summarises the particulars collected on the question of the hours worked :—

Weekly hours of labour.	Percentage of Total.	
	Factories.	Workpeople.
Less than 48 .. .. .	11·4	10·2
48 .. .. .	57·4	59·2
Over 48 to 50 .. .. .	5·8	3·5
Over 50 to 52 .. .. .	22·0	25·8
Over 52 .. .. .	3·4	1·3

In the Report of the Cantonal Factory Inspectors for 1922-23 it is stated that a well-marked result of the introduction of the forty-eight hour week was a falling-off in production, but that in practice this was partly made up by employers obtaining authority under the Act to extend the working week to fifty-two hours.

**United States of America.**

No law, either Federal or State, compulsorily restricts hours of labour generally in industry in the United States, but there is a well-marked tendency in the direction of working a forty-eight hour week.

The only Federal laws on the subject restrict the hours of certain Government employees, e.g. postmen and printers, to eight a day. There is, however, a large volume of State legislation regulating hours in industries of a dangerous nature, and also for women. These laws generally fix a maximum day but not a weekly limit of hours, and almost without exception they permit overtime so far as men are concerned. For example, fifteen States restrict the working day in mining to eight hours, and one State to ten hours, and twenty-seven States restrict the hours of labour on public works of the State to eight a day. Only four States have no law regulating the hours of work for women employed in industry. In eight States the maximum for women is eight hours a day; in two States it is eight and a half hours a day; in sixteen States it is nine hours a day; in fourteen States it is ten hours a day; and in three States it is between ten and eleven hours a day. The scope of the law varies in different States but the tendency of modern legislation seems to be to abolish overtime for women, or at least to discourage it by requiring payment at extra rates.

#### British Dominions.

##### *Australia.*

In *New South Wales*, the Industrial Arbitration Act of 1912\* gave power to a Court of Arbitration and to Industrial Boards to grant awards concerning, *inter alia*, working hours, on the principle of the eight-hour day. The Eight-hours Act of 1916 directed the Court and the Boards when making industrial agreements to observe that in all industries the number of hours was not to exceed forty-eight hours a week, or ninety-six hours in fourteen consecutive days. An amending Act was passed in December, 1920, under which a special Court was to be constituted with power to inquire into the working hours of any industry. If the findings of the Court were adopted by the Governor by proclamation, the hours prescribed were to be considered the ordinary working hours in the industry concerned and to be equally binding as an award of the Court of Arbitration. Under this Act a forty-four hour week was applied by proclamation to a considerable number of the principal industries. This Act was, however, repealed by an amending Act of September, 1922, which constituted a reversion to the general eight-hour day. Proclamations made under the 1920 Act ceased to be effective from the date of the new Act, which provided that hours might be reduced below eight a day, or increased to more than eight, if the Court of Arbitration or an Industrial Board so decided. The variations in the average weekly hours,

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\* See pp. 344-7.



excluding overtime, of industrial employees in New South Wales during recent years, are shown in the following table extracted from the Commonwealth Official Year Book for 1924 :—

Year.	Average weekly hours.	
	Adult Males.	Adult Females.
1919 .. .. .	47·77	47·53
1920 .. .. .	47·51	46·83
1921 .. .. .	45·66	45·06
1922 .. .. .	46·05	45·33
1923 .. .. .	46·73	45·81

In *Queensland* the Court of Industrial Arbitration, established by an Act of 1916\*, is empowered, *inter alia*, to make awards fixing the number of hours, and the Court and the Boards appointed thereunder are required in making such awards to provide in general that hours shall not exceed forty-eight in a period of six consecutive days nor eight a day. Overtime may, however, be permitted by the terms of any award subject to the payment of time and a half rates. The variations in the average weekly hours, excluding overtime, in the principal industrial groups in Queensland during recent years are shown in the following table extracted from the Commonwealth Official Year Book for 1924 :—

Year.	Average weekly hours.	
	Adult Males.	Adult Females.
1919 .. .. .	46·19	46·76
1920 .. .. .	45·63	46·09
1921 .. .. .	45·52	45·66
1922 .. .. .	45·51	45·60
1923 .. .. .	45·51	45·60

In *Western Australia* the Factories Act, 1920, provides that male workers in factories shall not work more than forty-eight hours a week, or eight and three-quarter hours a day. In special circumstances the Minister may allow a maximum of ten hours in the day. Shorter hours are laid down for females and for boys under sixteen years.

\* See p. 347.

*New Zealand.*

The Factory Act of 1908 restricted the hours of labour of adult males to forty-eight a week. Under the Factories Act of 1921 the working hours of males employed in factories may not exceed eight and three-quarters per day, or forty-eight a week. For women and boys the hours specified are eight and a quarter a day or forty-five a week. Overtime, subject to payment of enhanced rates of wages, may be worked, but in the case of women and boys it must not exceed three hours a day or ninety hours a year, nor may it be worked on more than two consecutive days. While this is the legal position, lower maxima are in force in most industries as a result of awards or agreements under the Industrial Conciliation and Arbitration Act.\* These usually limit hours to eight a day and forty-four a week; and, according to recent Press statements, the hours of work of from 70 to 80 per cent. of workpeople in New Zealand are arranged on the basis of a forty-four hour week.

*Canada.*

In British Columbia the Hours of Work Act, 1923, became operative on 1st January, 1925, and it prescribes that working hours shall not exceed eight a day or forty-eight a week in industrial undertakings, though there are special provisions in regard to continuous processes and exceptional occurrences such as accidents. A Board of Adjustment was set up under the Act, and it has granted both permanent and temporary exceptions. The permanent exceptions have been in respect of preparatory and complementary work and for work of an essentially seasonal nature. Temporary exceptions of various scope have also been granted to a number of occupations.

**Conclusion.**

A number of points worthy of special comment appear to emerge from the foregoing details of the legislation as to hours of labour in force in the more important industrial countries of the world.

It might be expected that the legislation would vary from country to country, but it is perhaps surprising to find how great the divergencies between the legislation of the various countries actually are. Taking first the scope of the legislation, it is to be noted that in practically no two countries does the law cover the same occupations. For example, in the United States only certain Federal government employments are subject to Federal legal restrictions as to hours, while some States restrict the hours of miners and some do not, and the laws of most but not all the States limit the hours of women. Again, the Belgian law applies to practically all industrial and commercial occupations, but that of

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\* See p. 352.

France only to persons to whom it is extended by administrative regulations. Further, the legislation of most countries extends to the railways, but this is not the case in Norway. Many other divergencies of scope can also be found.

Another respect in which the legal provisions vary from country to country is the practice in regard to averaging the legal number of hours over a period. According to the foregoing summaries, all the laws in force allow to some extent for the eight-hour day or the forty-eight hour week to be averaged over periods; but the periods specified, as well as the method by which the averaging may be carried out in practice, vary from country to country. In some countries the practice is confined to certain industries and in others to certain classes of workpeople, while in others the practice is so widespread as to entail a very large measure of departure from the principle of the law.

Great variations also exist between the practices of individual countries as to the definition of the word "work," which is used as the basis of legislation. To take a few examples: in France the law applies only to actual hours of productive work and not to waiting or rest periods. A very similar provision is contained in the Italian law, and occupations requiring only intermittent work or mere attendance are specified by decree. In Germany, originally no differentiation was made between presence on duty and effective work, but later no limit was placed upon the hours of employment on work regularly entailing mere presence on duty. In Czechoslovakia, on the other hand, presence on duty appears to come under the eight-hour day; and in several countries such presence, as well as travelling to and from work, appears to be counted in varying proportions as time employed on actual work.

The various provisions in regard to continuous processes, preparatory and complementary work, accidents and so forth, while differing in detail are in principle common to legislation on the subject, but the provisions regarding overtime in the different national laws vary widely both in character and scope. In all the countries, permission to work overtime can be obtained, but the authority by whom it is granted, the length of time during which it is allowed and the basis on which permission is given to either individual employers, districts, or whole industries, differ very widely from country to country.

A short examination of the details given in this Memorandum will reveal many other examples of the manner in which the various national provisions vary as between one another. So wide are these divergencies that it is not possible to say from a scrutiny of the legislation over what period of a day the legal eight-hour day may extend in the different countries, as this depends on whether the eight-hour day is interpreted as eight working hours or eight

hours work. Nor is it possible to estimate without detailed statistics the effect on working hours, however interpreted, of the different provisions regarding averaging, scope, overtime and exceptions. That this is the case becomes the clearer when it is called to mind that the importance of any exemption or deviation which may be common to a number of countries varies in practice with the conditions of each individual country. An exception to the basic principle may have quite trivial effects in one country and yet in a highly industrial country with a large factory population may in practice constitute a wide departure from the general application of the maximum hours laid down by statute.

In the case of all the eleven European countries dealt with in the foregoing summaries, it will be noticed that legislative action on the subject of hours of labour was taken in the years 1918, 1919, or 1920. Of the countries in question, Austria, Belgium, Czechoslovakia and Norway have not altered the law during the period which has elapsed since its passing. France, Germany, Italy, Poland and Switzerland, while leaving the basic principle of the law unchanged, all appear to have found it necessary to extend by administrative action the hours of work to a considerable degree in large and important sections of industry. In the Netherlands and Sweden, the law has been definitely amended so as to increase the normal hours laid down by statute. Thus, four of the eleven countries still appear to administer the law as originally passed, while the remaining seven have taken steps to introduce more elasticity into its operation.

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### TIME LOST IN INDUSTRY.

#### *Time lost through Sickness.*

The figures given in this paragraph as to England and Wales are taken from the Annual Reports on the state of the Public Health by the Chief Medical Officer of the Ministry of Health, who relates the figures of Sickness and Disablement Benefit paid out by the Approved Societies to an estimate of the average rate of benefit in order to show an estimate of the number of weeks of sickness represented. The figures given in regard to Scotland have been supplied by the Scottish Board of Health as an estimate of the number of weeks of illness equivalent to the payments on sickness and disablement benefit in Scotland in the years in question.

It should be remembered that these figures refer only to the insured population under the National Health Insurance Acts (over 15 million persons), and that they do not include the first three days of an individual illness, since benefit is not paid for that period. The totals shown are, therefore, probably well within the fact.

		Weeks of Sickness.		
		England and Wales.	Scotland.	Great Britain.
1922 :—				
Men ..	..	12,500,000	1,627,000	14,127,000
Women	..	7,250,000	898,000	8,148,000
Total	..	19,750,000	2,525,000	22,275,000
1923 :—				
Men ..	..	12,750,000	1,598,000	14,348,000
Women	..	7,750,000	952,000	8,702,000
Total	..	20,500,000	2,550,000	23,050,000
1924 :—				
Men ..	..	14,250,000	1,704,000	15,954,000
Women	..	9,000,000	1,089,000	10,089,000
Total	..	23,250,000	2,793,000	26,045,000

*Time lost through Unemployment.*

The following figures have been computed by the Ministry of Labour by taking an average of the Live Register\* of the Employment Exchanges in Great Britain for each of the years 1921–24, and estimating the number of individual weeks of loss of work this represents, after allowing for the usual public holidays. It should be noted that some unemployed persons (e.g., many of those who are not insured against unemployment, or who have not valid claims to unemployment benefit) do not register at the Employment Exchanges when out of work, and figures are not available as to the extent of unemployment among such workpeople. Further, short time working is only partially covered by the returns. The figures given, therefore, considerably understate the total loss of time through unemployment and under-employment, and must, accordingly, be taken as an indication for purposes of rough comparison only.

Average of Live Register.		Weeks of unemployment.
1921	1,825,000	93 million.
1922	1,589,000	81 million.
1923	1,290,000	66 million.
1924	1,131,000	58 million.

\* See p. 221.

*Time lost through Trade Disputes.\**

The figures represent the time lost in Great Britain at the works actually involved in the disputes. Time lost by workers indirectly affected by the disputes, at establishments other than those at which the disputes occurred, is not included.

					Weeks of unemployment.
1921	..	..	..	..	14·3 million.
1922	..	..	..	..	3·3 million.
1923	..	..	..	..	1·8 million.
1924	..	..	..	..	1·4 million.

## THE CASUAL LABOUR PROBLEM.

[Furnished by the Ministry of Labour.]

*Statement of the Problem.*

The system of casual labour is not entirely confined to the Dock Transport Industry, but is more or less prevalent in various other industries as well, e.g., in ship-repairing. As, however, more casual labour is employed at the docks than in any other occupation, and as the problem is most acute in this industry, this memorandum has been written with special reference to dockers.

Dock work is distinguished from other classes of labour in that it is subject, not only to the usual seasonal and cyclical fluctuations, but also to violent fluctuations which occur from day to day and week to week. These latter are due to uncertainty and irregularity in the arrival of shipping owing to climatic, tidal and other conditions and to the necessity for "turning round" the boats in the shortest possible time.

In order that the number of dockers employed may be adjusted as rapidly as possible in relation to these fluctuations of work, the men are engaged on short-term (frequently half-daily) contracts of service, and they pass quickly in and out of employment, often with several different firms in each week.

On the other hand, a margin of labour—sufficient to deal with the work on the busiest days—must be available in the port, whether it is actually required on any given day or not.

In practice, however, this reserve has tended to be very much larger than the preceding paragraph would suggest. Dock work (with the exception of certain specialised jobs) does not require in the main any lengthy training, and the rates of wages offered (though

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\* See Memorandum on pp. 334 et seq.

not necessarily the earnings of individuals over a period) compare favourably with those in other occupations. There is, therefore, a strong tendency—especially during periods of trade depression—for unemployed workpeople who have been engaged in other industries to be attracted to swell the existing “pools” of casual labour at the docks.

It is, moreover, erroneous to regard each port as possessing only one such pool. There are, in fact, many of them, more or less separate from each other, in all the larger ports. This is partly due to necessary specialisation on various classes of dock work, e.g., coal or deal portering, and partly to the tendency of the foremen habitually to employ their own separate gangs and of the dockers to follow their own particular foremen.

As a result of the system of casual engagements, the total amount of work available tends to be distributed among many different men in such a way that a large proportion of them are constantly under-employed and unable to earn a living wage, whilst many of those whose earnings reach a subsistence level, suffer from the lack of security of tenure and from the irregularity in the amounts they receive from time to time.

This is both detrimental to the men themselves from the social point of view, and also, from the economic point of view, prejudicial to the efficient despatch of the work. It has, moreover, a direct effect on public expenditure, in that many of the men are dependent for their livelihood only partially upon their work, and for the rest upon Out-Relief or the Unemployment Fund. In this connection it should be observed that, although special steps are taken to ensure that the statutory conditions for the receipt of benefit are duly fulfilled by casually employed claimants, the total expenditure from the Unemployment Fund in the case of dockers greatly exceeds the total value of the contributions paid in respect of them.

The process of decasualisation, entails two successive steps—first, to prevent the influx of further unemployed persons from other industries into the existing pools of dock labour, and secondly, to confine the work to the number of men properly required to carry it out, i.e. to reduce the excessive numbers of existing dock workers.

#### *Period prior to 1914.*

Public attention was drawn to the casual labour problem towards the end of the last century in connection with the enquiries which were being made into social conditions generally, and into pauperism in particular. The trade dispute which took place in London in 1889, when the Dockers' Union obtained a minimum time rate of 6d. per hour (known as the “Docker's Tanner”), and a guaranteed

minimum of four hours pay on engagement, brought the casual labour question into special prominence. It was noticed also in the Reports of a number of Royal Commissions and Committees set up by successive Governments.\*

A definite step was taken in 1912, when a Joint Committee of Employers and Trade Union representatives at Liverpool, with the assistance of the Board of Trade, instituted a registration scheme. Under this scheme a register was compiled of dockers engaged in the Port, and each registered man was given a metal "tally" as a means of identification. The employers who were parties to the scheme undertook to confine employment at the docks to men so registered, and only to engage other men under special conditions in cases of emergency. The basis of this scheme, and of all subsequent schemes of registration, was that of voluntary agreement, and compliance was not enforced by any statutory sanction. The scheme at Liverpool also included an arrangement whereby the wages of each registered man were paid weekly at offices known as "Clearing Houses" by the Board of Trade on behalf of, and at the cost of, all the employers for whom each such man had worked during that period. The stamping of Health Insurance cards under the National Insurance Act, 1911, and later, of Unemployment Books, was also carried out by the Board of Trade on behalf of employers each week. Finally, the Department erected surplus calling-on stands, to which men failing to obtain work at the ordinary calling-on places could resort, and to which employers finding themselves short of men after the "call" could notify their requirements.

When the Liverpool scheme was first set up over 31,000 men were registered, whereas the average number of men actually working each week about that time was approximately 20,000. The scheme no doubt had the effect of checking the influx of casual labour from other industries into the Port, though it did not in itself bring the supply of labour immediately into any close correspondence with the demand. The number of tally holders has, however, been reduced to about 20,000, compared with an average number of men actually working each week of between 15,000 and 16,000.

Endeavours were made by the Board of Trade to secure the introduction of registration schemes at several other ports, but in the main without any success. A scheme was, however, established in the South Wales ports covering casual labour engaged in ship repairing.

#### *The War Period.*

During the war it was found necessary to obtain the co-operation of the dockers in the administration of the Military Service Acts, and in 1916, Joint Committees of employers and workpeople known

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\* See the report on Dock Labour in relation to Poor Law Relief, 1908 (Cmd. 4391), and reports of the Royal Commission on the Poor Law, 1909 and 1910 (Cmd. 4499, 4653, 4795 and 5069).



as "Port Labour Committees" were accordingly set up by the Board of Trade in 32 of the largest ports. These Committees advised the Government as regards the release of men for military service, and the issue of exemption certificates, and they also dealt with questions of registration, the issue of tallies and the concentration of calling-on stands. When the Ministry of Labour was set up, it took over from the Board of Trade in 1917 its duties in regard to these latter functions of the Committees.

*The Period from November, 1918, to December, 1923.*

At the Armistice it was realised that unless immediate steps were taken, the progress of demobilisation would flood the docks with unemployed persons seeking casual work. It was decided, therefore, that the Port Labour Committees should remain in existence to deal with demobilisation matters affecting dock labour, and that a co-ordinating Central Advisory Committee should be formed under the Ministry of Labour. The Committees were invited, *inter alia*, to consider the setting up of registration schemes in their ports.

At the same time a Committee representing employers and trade unions was set up in London under the chairmanship of Mr. Justice Roche to consider the casual labour question in the port. This Committee presented an Interim Report recommending a registration scheme. A Joint Committee known as the "Port of London Registration Committee" was accordingly set up in 1919 for this purpose and carried out the issue of tallies to about 61,000 dockers. The average number of men normally required each day, however, was estimated to be only about 34,000.

In all, the number of Port Labour Committees set up was over 40, but in a number of cases they did not formulate registration schemes, and in some instances do not appear ever to have been in effective operation. Certain expenses in connection with these Committees were paid out of public funds, e.g., the cost of tallies and forms, and the Ministry of Labour also provided secretarial and clerical assistance, and accommodation for meetings of the Committees.

In 1919 the Transport Workers' Union made a claim for a minimum time rate of 16s. a day with corresponding advances in piece rates, and, following a stoppage of work, a Court of Inquiry under Part II of the Industrial Courts Acts was set up by the Ministry of Labour, the Chairman being Lord Shaw of Dunfermline. In the proceedings before the Court the question of decasualisation was raised, and the Court, in its report, expressed strong views on the necessity for the establishment of registration schemes and of Local Joint Committees to administer them. A further question—that of "maintenance" or "the guaranteed week"—was also raised, and the Court declared in favour of the principle involved, but made no concrete proposals. The claim for "maintenance" amounts, broadly speaking, to a

proposal that the reserve of men which it is necessary to keep in order to deal with the fluctuations of work at the docks, should be guaranteed a minimum weekly wage on condition that they shall be available for work as required. Following on the report of this Court, a number of Local Joint Committees were set up and also a national body known as the "National Joint Council for Dock Labour."

Less progress, however, was made by the Local Committees than was hoped would be the case. In a number of instances they gradually became dormant as the interest originally felt in them by employers and workpeople diminished. In other cases they failed to set up registration schemes, and even where such schemes were established no positive progress was made towards decasualisation. For example, no scheme was set up at Glasgow; the scheme at Hull became ineffective; the Port of London Registration Committee broke down later; and at Liverpool, although the scheme has remained in being, the number of registered men has not shown a continuous reduction and the "surplus stands" system has fallen into disuse. Nevertheless, it is true to say that those schemes which remained in operation did contribute to the prevention of further casualisation by checking the influx of unemployed workpeople into the ports in question during the period of trade depression.

*The period from January, 1924 to June, 1925.*

At the beginning of 1924 a further dispute, culminating in a stoppage, occurred between the Port Labour Employers and the Transport and General Workers' Union and the Unions affiliated to it over a claim for an increase in wages, which had dropped during the intervening period from the level recommended by the Shaw Court of Inquiry. After conferences had been held at the Ministry of Labour between the parties concerned, terms of settlement dated 20th February, 1924, were agreed upon, one of the clauses in which read as follows:—

"Decasualisation. The parties to this Agreement agree to appoint a Sub-Committee (the Minister of Labour to appoint an independent Chairman and supply such technical assistance as may be necessary) for the purpose of developing and strengthening the system of registration and to examine the proposal for a guaranteed week with a view to arriving at an agreement to give effect to the Shaw Report."

The two sides of the National Joint Council accordingly appointed three representatives each to be members of this Sub-Committee and the Minister of Labour appointed the Rt. Hon. Sir Donald Maclean as Chairman, and supplied the desired technical assistance. The Committee presented two interim reports in June and July, 1924, respectively, to the Minister and the Council. These reports set out the Committee's view that the establishment of effective registration schemes, besides being desirable in itself, is a condition

precedent to the formation of any reliable opinion on the question of the "guaranteed week." The first report included (a) a schedule of twenty-six ports or groups of ports where no registration scheme existed, and where the Committee recommended that the system should be introduced, and (b) a schedule of eighteen ports which already had schemes. In the latter case the Committee recommended that the metal "tallies" should be replaced by books in which the employment obtained by each registered man at the docks could be recorded, in order to provide a means of confining the registers to men who had a valid claim to be registered as dockers.

Subsequently, agreement was reached between the Ministry of Labour and the National Joint Council for Dock Labour that the responsibility for the initiation and control of the schemes rested with the employers and workpeople in the various ports, but that the Department should be prepared to supply the necessary secretarial and clerical assistance, registration books, forms, stationery and accommodation, subject to the Minister's approval of the composition of the Joint Committees proposed.

Sir Donald Maclean's Committee continues to consider the progress made in carrying out its recommendations, and has received information from the different ports, which indicates, broadly speaking, that, with the exception of a few of the smallest ports, registration schemes have either been set up or are under discussion at nearly all the places scheduled by the Committee, and that most of the existing registers have been or will be reviewed by the appropriate Joint Committees.

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#### THE INDUSTRIAL FATIGUE RESEARCH BOARD.

[Furnished by the Secretary of the Board.]

*Origin.*—The Industrial Fatigue Research Board is a Government body constituted in 1918 to continue, under the control of the Medical Research Council, the work which, begun by the Home Office, had been carried on during the war by the Health of Munition Workers' Committee on the relation of hours of work, etc., to fatigue and production, and to study on systematic and scientific lines the laws governing the healthy employment of the human mind and body in industry. The terms of reference of the Board are given in Appendix I, which also contains a list of the members. These include scientists, representatives of industry and government officials. Translating the Board's title into positive terms, it may be regarded as concerning itself with the workers' fitness, fitness being defined as the physiological quality resulting from favourable conditions of work and reflected both in increased production and in decreased sickness, labour turnover, lost time and accidents.

*Scope of Work.*—In planning their work originally, the Board shaped their policy so as to combine two objectives: first, the acquisition of knowledge on the functioning of the human factor

in industry ; and, secondly, an attempt to educate public opinion in industry up to a realisation of the proper importance of this knowledge. Accordingly they took as their field of work certain selected industries, chosen on account of the opportunities they seemed *prima facie* to offer, in the expectation that the closest touch with industrial opinion and sympathies would in this way be secured, and also because the exploration of a wide field would probably most quickly disclose the points deserving of further and closer investigation. Further, the Board decided to publish the results immediately on the completion of any of their investigations, not with a view to putting forward definite theories, but rather in order that the public, and particularly the industry concerned, might have before them the facts with such tentative conclusions as seemed admissible. By this course the Board felt that the knowledge acquired in any investigation would be confirmed or disproved by subsequent work, perhaps on quite different lines.

In pursuance of this policy, investigations were carried out in the iron and steel, tinplate, cotton, silk, linen, boot and shoe, pottery, laundry and glass industries, the results being published in a special series of Reports (see Appendix II).

Subsequently the Board have decided to adopt a different procedure, and instead of taking an industry for the field of work, they are attempting through their investigators to elucidate certain general problems which are of interest to industries generally. Accordingly, the Board are at present devoting their main resources to the investigation of :—

- (a) the effects of hours of work, and more particularly of their arrangement within the working day and week ;
- (b) the personal factor in accident causation ;
- (c) the design of machinery in respect of the requirements of the operator ;
- (d) the physiology of ventilation ;
- (e) the rate at which skill is acquired in different occupations.

As another section of their work the Board have directed a number of investigations on specific problems, undertaken at the request of Government Departments or of Industrial Associations. The Home Office, for instance, have suggested the initiation of research on the maximum loads to be lifted and carried by women, the Mines Department have asked for a survey of the effects of atmospheric conditions in coal-mines, and for several years an investigation on the means of minimising the incidence of telegraphists' cramp has been in progress at the General Post Office. As regards Industrial Associations, the National Council for the Pottery Industry asked for guidance on the physiological suitability of certain processes for women.

In certain cases Government Departments and Research Associations have co-operated in investigations at the request of the Board. Thus the Department of Scientific and Industrial Research

has consented to assume responsibility for part of the cost of the investigation of machine design, already referred to, the Factory Department of the Home Office has participated in several of the field investigations, and facilities for investigation have been given in government institutions under the control of the Admiralty, War Office, Air Ministry and Post Office.

All of the problems described are being studied partly by field investigation through the services of full-time investigators and partly by laboratory research under academic direction, conducted under a system of financial grants. For the former, the consent of the employers and the co-operation of the workers are essential, and these have almost always been secured without difficulty.

*Organisation.*—The work of the Board impinges on so many spheres of knowledge that the provision of a rather extensive standing organisation has been found necessary to ensure adequate consideration of the results obtained before publication.

The strictly scientific side of the work is now dealt with by four Committees (concerned respectively with Statistics, Physiology of Muscular Work, Physiology of Respiration, and Industrial Psychology), which have been appointed by the Medical Research Council, and work in close relation with the Board. In some instances special composite Committees have been constituted from the various scientific committees to undertake the immediate supervision of certain investigations impinging on the spheres of several sciences.

To ensure that all technical considerations have been taken into account, the results of any investigation are referred to a Committee composed partly of nominees of the Board and partly of representatives of the trade (both employers and employed). In this way, again, many pitfalls have been avoided, and valuable suggestions have been made for future inquiry.

*Publications.*—In addition to five Annual Reports (1920 to 1924), the Board have published thirty-three Reports by various authors, some dealing with particular industries and others with general subjects of interest to industry as a whole. The titles of these reports are given in Appendix II.

#### RESULTS OBTAINED.

As an indication of the Board's work, some examples may now be quoted of the results which appear to be of practical importance in industry. In the following summary these have been divided into three categories, according to whether they relate to the effects of:—

- (a) Hours of labour, &c.
- (b) Other conditions of employment, i.e., the physical environment of the worker.
- (c) Methods of work, i.e. methods involving primarily the individual worker.

*Hours of Labour.*

(1) *Length of Shift.*—In the iron and steel, tin plate, and glass industries the effects of shifts of different length have been compared. Within the limits observed, the results are consistent in showing that a reduction in length of shift is generally followed by an increase in *hourly* output, but that this increase is usually insufficient to compensate for the shorter hours, so that the total individual output and the total output *per shift* is less on the shorter than on the longer hours. In continuous processes, however, there is generally an increase in total output *during the 24 hours*. It may take from two to thirteen months after the reduction of hours before the increasing output attains a steady level.

(2) *Distribution of Hours.*—In the cotton industry there are indications that the one-break day is, on the whole, preferable to the two-break day, owing to the low efficiency of the pre-breakfast spell, but experience suggests that the actual spells of work under the former system may be too long and that rest-pauses within the spell may be beneficial. Since this conclusion was reached, it has been found that one textile mill has adopted this system with results that are said to be favourable.

(3) *Rest-pauses.*—The practice of breaking up long spells of work by the introduction of short rest periods has already been adopted by some industrial establishments in this country. Investigation carried out by the Board indicates that in light manual repetition work the judicious introduction of a rest-pause of 10 to 15 minutes into a spell of 4½ to 5 hours will be eventually followed by a small but genuine increase in output of the order of 5 to 10 per cent., notwithstanding the shorter time actually worked. According to certain laboratory experiments, there are indications that in heavy muscular work, also, efficiency might be greatly increased by periodic rest-pauses and frequent changes of posture.

*Conditions of Work.*

(1) *Temperature.*—In heavy work, especially where it involves exposure to heat, output is often greatly influenced by the temperature of the environment, as is shown by the fact that it undergoes a consistent seasonal variation, being greatest in winter, least in summer and intermediate between the two in spring and autumn. In tinsplate manufacture, for instance, output has been found to vary by as much as 20 or even 30 per cent. as between the coldest and hottest weeks of the year. Further, the important fact has been established that this variation is much smaller in well-ventilated mills

than in mills in which no special provision for ventilation is made. The comparative evenness of output in well-ventilated shops suggests that most of this difference in output could be eliminated by providing suitable ventilation. Similar but smaller variations were observed in blast-furnace charging, open-hearth steel-melting, puddling, and at the rolling mills.

(2) *Lighting*.—The relation of lighting to output has been studied in several textile processes, and it has been shown by independent investigators that in fine weaving (silk and cambric) production falls about 10 per cent., under even a moderately good system of artificial light as compared with daylight. In the coarser process of cotton weaving a similar but smaller effect (5 per cent.) has been observed.

(3) *Humidity*.—A hot and humid atmosphere appears also to affect production. In the cotton industry the operatives claim, on the one hand, that the practice of "steaming," or the injection of moisture into the air to aid the process of manufacture, is detrimental to the health and comfort of the workers. On the other hand, it is generally accepted that a high temperature and a high degree of humidity have a beneficial *physical* effect on the yarn in weaving. It has been found independently in two inquiries that production begins to fall when the wet-bulb temperature reaches 72°-73° F., and this effect can only be due to an involuntary reduction in the working capacity of the operatives.

(4) *Temperature and Accident Causation*.—Temperature appears to be a factor in accident causation. It has been found in certain engineering processes that *ceteris paribus* accidents are at a minimum at a temperature of 67.5° F., and tend to increase as the temperature rises above or falls below this point.

#### *Methods of Work.*

(1) *Training*.—In certain repetitive processes (the buffing of spoons and forks, sweet dipping and chocolate covering by hand) a largely increased output was obtained by the adoption of systematic methods of training, based on movement study. In weaving, large and consistent differences in productive efficiency were found amongst individual weavers, and these differences were probably due in part to imperfect training and to the present system under which it is largely a matter of chance whether any given learner is attached to a good teacher. The investigation suggests the desirability of considering whether the present system should be replaced by the installation at various centres of properly equipped training schools or institutions.

(2) *Vocational Selection*.—In the printing industry it was found that the results of certain psychological tests when applied to hand compositors corresponded very closely with their working efficiency.

(3) *Machine Design*.—In certain repetition processes the machines in common use sometimes appear to be ill-designed as regards the requirements of the operator. The Board's investigation of this subject is not yet available, but there is evidence that a trifling and simple alteration in design may sometimes make a substantial difference in the ease of working.

#### CONCLUSION.

The results hitherto obtained by the Board go far to show that productive efficiency can be markedly increased by finding and adopting the most favourable conditions and methods of work for the operative. It is true that, in the cases where this adoption is most easy, the improvements recorded are often small, but it must be remembered, first, that they are all based on cautious estimates, and, secondly, that they generally represent the composite effect of changed conditions upon a large number of operatives, differing in their individual response to the change. The assumption seems, therefore, to be justified that a favourable effect estimated in this way would extend to the whole body of operatives engaged on the given occupation, and so would have a pronounced influence generally on the fitness of the workers and on production.

Where methods affecting the individual workers (such as training) have been applied, the resulting improvement has been naturally much more marked; any widespread adoption of these methods, however, can only be brought about gradually and many years must probably elapse before their full effect is felt.

The Board are impressed with the importance of bringing industries to realise that many of the results already disclosed might, if generally applied, exert in the aggregate a substantial effect on industrial efficiency and that further investigations may have results of equally great practical value. The point is dealt with in the following quotation from the Board's Fifth Annual Report :—

“The Board are doubtful whether the extent of the loss which arises from the present indifference to the physiological and psychological aspects of industry is fully realised. Part of this waste is disclosed in the official statement that the loss of time due to sickness, most of which is preventable, probably costs the country not less than ten times more than that which it loses owing to strikes and labour disputes.\* Another attempt

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\* Annual Report of the Chief Medical Officer of the Ministry of Health for 1923. (H.M. Stationery Office.)



at its estimation in economic terms is made in a book recently published,\* and whilst the conclusions reached are necessarily very tentative, they suffice to show that a needless waste of many millions of pounds annually could be prevented by the application of scientific methods to the functioning of the human element in industry. The book in question deals only with industry as a whole, and a much closer estimate could probably be carried out by a special survey of any given industry. Much of the work of the Board has consisted in attaching more or less definite numerical values to effects, which qualitatively are often already known to exist. With the aid of such quantitative standards, there is no inherent impossibility in obtaining a rough impression of the probable economic effect of their application in industry. The Board, therefore, are inclined to suggest that industries which are not at present disposed to regard these questions as an important factor in their national progress, should arrange for a short survey by a qualified person of their existing conditions on an economic basis, the conclusions reached being, of course, accompanied by the data supporting them. If this were done, even on comparatively superficial lines, the results, in the conviction of the Board, would be such as to persuade the most conservative that here a field of enormous potentialities lies open to exploration in every class of industry."

## APPENDIX I.

CONSTITUTION AND TERMS OF REFERENCE OF THE  
INDUSTRIAL FATIGUE RESEARCH BOARD.*Constitution.*

- The Right Hon. William Graham, M.P. (Member of the Medical Research Council) (Chairman).  
 R. R. Bannatyne, C.B. (Home Office).  
 C. J. Bond, C.M.G., F.R.C.S.  
 W. L. Hichens (Chairman, Messrs. Cammell, Laird & Co., Ltd.).  
 Sir Joseph Petavel, K.B.E., D.Sc., F.R.S. (Director of the National Physical Laboratory).  
 Sir Charles Sherrington, O.M., G.B.E., Sc.D., P.R.S. (Professor of Physiology, University of Oxford).  
 Professor E. H. Starling, C.M.G., F.R.S. (Foulerton Research Professor, Royal Society).  
 Miss Mona Wilson.  
 C. S. Myers, C.B.E., M.D., F.R.S. (Director of the National Institute of Industrial Psychology).  
 Arthur Pugh (General Secretary, Iron and Steel Trades Confederation).  
 Sir Peter Rylands (Managing Director, Messrs. Rylands Bros., Ltd.).  
 D. R. Wilson (Secretary).

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\* "The Economics of Fatigue and Unrest," by R. Sargant Florence (Allen and Unwin, 1924).

*Terms of Reference.*

To suggest problems for investigation, and to advise upon or carry out schemes of research referred to them from time to time by the Medical Research Council undertaken to promote better knowledge of the relations of hours of labour and of other conditions of employment, including methods of work, to functions of the human body, having regard both to the preservation of health among the workers and to industrial efficiency; and to take steps to secure the co-operation of industries in the fullest practical application of the results of this research work to the needs of industry.

## APPENDIX II.

## REPORTS PUBLISHED BY THE INDUSTRIAL FATIGUE RESEARCH BOARD.

- Results of Investigation in Certain Industries. 1924.  
 The Incidence of Industrial Accidents upon Individuals with special reference to Multiple Accidents. 1919.  
 The Speed of Adaptation to altered Hours of Work. 1920.  
 Vocational Guidance (a Review of the Literature). 1921.  
 A Statistical Study of Labour Turnover in Munition and other Factories. 1921.  
 Time and Motion Study. 1921.  
 Three Studies in Vocational Selection. 1922.  
 Two Contributions to the Study of Accident Causation. 1922.  
 The Function of Statistical Method in Scientific Investigation. 1924.  
 The Effects of Posture and Rest in Muscular Work. 1924.  
 Performance Tests of Intelligence. 1925.  
 The Influence of Hours of Work and of Ventilation on Output in Tinplate Manufacture. 1919.  
 The Output of Women Workers in relation to Hours of Work in Shell-making. A Study of Improved Methods in an Iron Foundry. 1919.  
 Fatigue and Efficiency in the Iron and Steel Industry. 1920.  
 Motion Study in Metal Polishing. 1921.  
 Individual Differences in Output in the Cotton Industry. 1920.  
 Some Observations on Bobbin Winding. 1920.  
 A Study of Output in Silk Weaving during the Winter Months. 1920.  
 An Analysis of the Individual Differences in the Output of Silk Weavers. 1922.  
 A Study of Efficiency in Fine Linen Weaving. 1922.  
 Atmospheric Conditions in Cotton Weaving. 1923.  
 Variations in Efficiency in Cotton Weaving. 1923.  
 Preliminary Notes on the Boot and Shoe Industry. 1920.  
 Preliminary Notes on Atmospheric Conditions in Boot and Shoe Factories. 1921.  
 Two Investigations in Potters' Shops. 1922.  
 Some Studies in the Laundry Trade. 1922.  
 A Comparison of different Shift Systems in the Glass Trade. 1923.  
 Two Studies on Rest-Pauses in Industry. 1924.  
 On the Extent and Effects of Variety in Repetitive Work. 1924.  
 An Experimental Investigation into Repetitive Work. 1925.  
 Studies in Repetitive Work (with special reference to rest pauses). 1925.  
 A Contribution to the Study of the Human Factor in the Causation of Accidents. 1926.

Full details of these Reports can be obtained from the Secretary of the Board, 15, York Buildings, Adelphi, London, W.C.2.

## INDUSTRIAL WELFARE IN GREAT BRITAIN.

[Furnished by the Home Office.]

The object of this memorandum is to give some account of the place which provision for the welfare of the workman occupies in industry at the present day and the lines on which it seems likely to develop in the near future.

For purposes of convenience, attention will be concentrated on factories, although welfare work is by no means confined to factories, and important developments have taken place in almost every branch of trade and industry. The mining industry provides the most notable example. This is dealt with in a separate note.\*

*Meaning of Welfare.*

The term "welfare" as applied to industrial conditions is of modern origin and is used with varying meanings. In its widest sense it comprises all matters affecting the health, safety, comfort and general welfare of the workman, and includes provision for education, recreation, thrift schemes, convalescent homes, &c. (It is used by some to include wages and hours of employment which have already been dealt with in this volume. More usually, questions which are primarily questions of remuneration, though obviously they have a most important bearing on the well-being of the workman, are regarded as outside the scope of the term. So also it is usual to exclude hours of employment, though it must be remembered that they exercise a direct effect upon the health and efficiency of the workman.) In a narrower sense, the term "welfare" is used to denote the arrangements made to secure the general health and comfort of the workman as distinct from the precautions adopted against the risk of injuries to health due to the workman's occupation. It is in the wider sense that the term is used in this note.

*Distinction between Statutory and Voluntary Welfare.*

That the workman is entitled to protection against accident and injury to health arising out of his employment, and that it is the duty of the State to take such measures as are reasonably practicable to secure that he obtains such protection, is a fundamental principle of the codes of all civilised countries. The law, further, usually attempts to secure for the workman minimum standards of health and comfort as regards conditions inside the factory. The line between health and comfort is a difficult one to draw, and, like the line between what is deemed practicable or impracticable, necessarily fluctuates with the general state of material civilisation. What is, in the first instance, regarded as a comfort, or even as a luxury,

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\* See p. 196.

may come, sometimes within a very short time, to be considered essential to health. Generally speaking, it is only when this point has been, or is about to be, reached, that the State intervenes to insist on compulsory obligations. The provision enforced by the State relates to the special arrangements for health, safety and comfort necessitated by the nature of the occupation. Voluntary welfare is concerned rather with the general well-being of the workman. The two fields overlap, however, and no fixed boundary line can be drawn.

#### STATUTORY WELFARE.

The starting-point taken in this memorandum is the Factory and Workshop Act, 1901, which was a great amending as well as consolidating measure. The Act lays down general requirements for the health and safety of workpeople in factories and workshops, and, in addition, gives power to make regulations for processes which give rise to special dangers. This power extends to docks, wharves, quays and warehouses, buildings under construction with the aid of machinery, and railway sidings used in connection with factories. The general provisions relating to health are directed to securing minimum standards of temperature, ventilation, cleanliness and sanitation, and prevention of overcrowding. The safety provisions require the safeguarding of dangerous machinery and appliances, and provision of adequate means of escape in case of fire. There are also provisions regulating the hours of employment of women and young persons. The employment at night of women and young persons, with certain exceptions for boys, is prohibited. Women are not allowed to be employed within four weeks of childbirth, and young persons may not be employed without a certificate of fitness from a surgeon appointed by the Home Office. The main lines on which statutory action has developed, and is likely to develop in the near future, are laid down in the Act of 1901, and it would be a mistake to think that any radical change has taken place since and as a result of the war. It is true that certain additions to the general standards required by the Act have been made, but while these have been marked by a steady advance, they are rather in the nature of extensions of principles already well established than of radical alterations.

The method of development which will now be briefly traced has been by :—

- (i) Regent legislation.
- (ii) Welfare Orders.
- (iii) Regulations for certain trades.
- (iv) Administrative action.

In all these the organisations of employers and workpeople have taken an increasing share, and further mention of this, as well as of progress effected by voluntary agreements made by the industries themselves, will be made later in this memorandum.

(i) *Recent Legislation.*

(a) By the Employment of Women, Young Persons and Children Act, 1920 (which gave effect to certain International Conventions relating to minimum age for industrial employment and night work of women and young persons employed in industry), the employment of children under 14 has been forbidden; increased restriction has been placed on the employment of young persons, and the exceptions allowing employment of boys at night have been drastically cut down and limited to boys under 18.

(b) By the Workmen's Compensation Act, 1923, Section 29, first-aid provision has been required in all factories, and power given to require it in all other premises to which the Factory Acts apply.

This is a most important extension to practically all industrial employees of the safeguards which were at first required as a "welfare" measure in a few industries by Welfare Orders (see (ii) below). First-aid boxes or cupboards must be provided stocked with standard requisites, and must be readily available during working hours and be in charge of a responsible person, and the provision of an Ambulance Room is encouraged.

(c) By the Police, Factories, &c. (Miscellaneous Provisions) Act, 1916, Section 7, power was given to make Orders (known as Welfare Orders) requiring arrangements to be made in regard to the matters not covered by the general provisions of the Factory Acts for securing the welfare of workpeople in factories where the conditions and circumstances of employment and the nature of the processes carried on appear to require it.

This is the first appearance of the word "welfare" in any enactment and it is given a limited sense, but the enactment gave power by means of Orders to improve certain conditions in factories which hitherto had been outside the scope of legislation (see paragraph (ii) below).

During the first year and a half of war, experience had shown that something more was required than the minimum of cleanliness, ventilation, &c., to reconcile to factory life those hitherto unaccustomed to it who had been pressed into industry in large numbers, and to enable the maximum production vital to the nation to be maintained. Accordingly the Government took powers to compel the backward employer to provide the amenities of "welfare" which the enlightened employer had voluntarily adopted long before. This legislation of 1916 marks a distinct step forward in the history of welfare, and had an effect extending far beyond the making of a certain number of Orders, for it set the seal of authority on welfare in industry and gave a decided impetus to the movement as a whole.

(ii) *Welfare Orders.*—The matters which may be prescribed by Welfare Orders made under the Act of 1916 are arrangements for preparing or heating or taking meals, the supply of drinking water, the supply of protective clothing, ambulance and first-aid arrangements, the supply and use of seats in workrooms, facilities for washing,

accommodation for clothing, arrangements for supervision of workpeople, and rest rooms. At first sight it might appear that we have here the introduction of a new principle, but looked at in retrospect and in the light of the orders made, the advance represents rather an extension of the principle underlying the health and safety provisions of the Factory Acts. Arrangements for supervision of workpeople have not so far been required in pursuance of the above power, but the appointment of Welfare Supervisors has been encouraged, and was in fact made a condition of the emergency orders allowing the employment of women and young persons at night which were granted during the war and reconstruction period. Conferences were convened by the Home Office in 1917 and again in 1920, at which employers and workpeople and also the Universities were represented, to consider the best means of promoting the training and employment of welfare supervisors. A list of the welfare orders in force is given in Appendix I to this memorandum.\* With the exception of the two requiring provision for the treatment of injuries to be made at metal works and saw mills, and the general order requiring facilities for drinking water at factories at which more than 25 persons are employed, they are all directed to securing greater comfort for persons employed in processes which are exceptionally hot, wet, dusty, dirty or in other ways unpleasant. First-aid provision, of a prescribed standard, is now required by the Workmen's Compensation Act, 1923, as stated above, in all factories. The ease with which this provision passed through Parliament and the rapidity with which effect has been given to it are alike remarkable.

Generally speaking, the standard of compliance with the welfare orders has been good, and the improvements made under them have been gratifying; but the effect must not be exaggerated. Statutory orders, being applicable to a large number of small occupiers, cannot do more than impose a minimum standard, which will remove some of the more objectionable conditions. They leave a wide field for voluntary action in excess of what they enjoin, and not the least beneficial effect of the policy has been to stimulate voluntary action. Not only is statutory action necessarily limited in its scope, but it cannot secure that which, according to the prevailing view in this country, is most needed, i.e. the recognition of care for the well-being of the workpeople as an essential function of management. That can only come from the voluntary action of the employers acting, as far as possible, with the co-operation of the employees. Theoretically, the State could impose on all firms of a certain size the duty of creating a definite welfare organisation, but not only could this not be expected to achieve the same material results as a voluntarily established organisation, but it would lack what is even more important, the spirit by which the organisation should be animated.

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\* See p. 194.

(iii) *Regulations for certain Trades.*—The tendency of the law is to lay down only requirements which have general application, leaving the needs of industries presenting specific dangers and problems to be dealt with by special regulations known as Dangerous Trades Regulations. These regulations, which are made under Section 79 of the Factory and Workshop Act, 1901, apply automatically to all the premises cited in the regulations as soon as they are made, and do not need as under earlier statutes to be applied specifically to individual factories. The number of Dangerous Trade Orders now in force is 32. A list is given in Appendix II to this memorandum.\* The orders are in the main directed towards diminishing the risk of accidents and industrial disease. The industrial diseases chiefly aimed at are lead poisoning, anthrax, silicosis and various forms of chemical poisoning. By means of these regulations standards have been required in certain industries far higher than any laid down under the Act itself, and, in the last few years, in spite of the depressed condition of industry, eleven important codes have been made and put into force. It has been found necessary in special instances to allow a period of grace for structural alterations, but progress in the field of health and safety has been both marked and rapid. Industry has, on the whole, been both willing and able to bear the burden, and the expenditure involved is not generally regarded as uneconomic. The possibilities of further statutory action are by no means exhausted. Not only does scientific investigation reveal new methods of dealing with old dangers, but the invention of new appliances gives rise to fresh dangers. A great deal of research has taken place with regard to such matters as ventilation, temperature and lighting.

Two typical examples of recent codes are the Regulations for Chemical Works and for Electric Accumulators. In the case of the chemical works, where special dangers exist which are not found in other branches of industry, an elaborate code of Regulations has superseded old Special Rules, which, owing to changes in manufacture, were no longer adequate for the protection of the workpeople; and precautions which had been tried and found effective in the best works are now made compulsory whenever specially dangerous processes are carried on. The manufacture and repair of electric accumulators involves many processes which are a possible source of danger from lead poisoning and require meticulous care and close and intelligent supervision of the plant and the workpeople if illness is to be avoided. The old regulations for this industry had become inadequate in face of the great development due to the demands of "wireless" and other causes, and a detailed code has taken their place, in which precise requirements respecting removal of poisonous dust, scrupulous cleanliness of floors, benches and clothing are

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\* See p. 195.

included. These and many of the other Dangerous Trades Regulations contain provisions appropriate to Welfare Orders, requiring messrooms, protective clothing and washing facilities, because they are considered necessary as precautions against specific dangers to health.

The standards of health and safety which are now laid down are due, not only to the close attention devoted to the subject by the State which has for the last 30 years through its expert staff studied the risks to which workers are exposed and the means of averting them, but also to the more active part taken by employers and workpeople. Before a Dangerous Trade Order or a Welfare Order can be made, it must be published in draft, and any objections by interested parties must be taken into consideration. In the event of any substantial objection not being met, the matter has to be referred to a Commissioner for inquiry and settlement. The need for this step does not often now arise, and it has not so far been resorted to in the case of any code made since the war. This has been partly due to the desire of all the parties concerned to avoid the expense of a public inquiry, but it is also due to the procedure now generally followed of taking employers and workers into consultation in the earlier stages. The increasing regard being paid to details in matters of welfare (as having a value beyond that of mere amenities of civilisation) is demonstrated by these recent codes of Regulations which require not only the provision of certain welfare accommodation, but lay down particulars respecting its arrangement, cleansing and upkeep; and in two of the latest codes designed to meet the danger of silicosis to metal grinders every care is given to secure by the means appropriate to each case a very high degree of cleanliness in these notoriously dirty trades. The conditions under which these metal-grinding industries have for generations been carried on in old unsuitable premises made the problem of securing any substantial improvement one of exceptional difficulty, but it is believed that it will now be solved by the adoption of these Regulations, to the framing of which much consideration has been given by the Factory Department in consultation with representatives of employers and employed.

The importance of good lighting has come to the front, and provisions for suitable and adequate lighting which were first introduced in Regulations as a means of reducing risks of accident are now finding a place as a necessary means of maintaining health and cleanliness. The subject in its bearing on factories and workshops in general has been explored by a Departmental Committee on Factory Lighting, which sat before and after the war, and the recommendations they have made have been impressed upon the attention of employers and workpeople by arranging meetings with the trades most affected and by visits of investigation made by Factory Inspectors to the works.



(iv) *Administrative Action.*—No account of the development of the welfare movement would be complete without reference to the administrative action of the Government. Constant progress has been made along the lines indicated by the requirements of Acts, Orders and Regulations as a result of the work of the Home Office staff. The Factory Inspectors acquire through their daily experience in factories an expert knowledge of the conditions which make for safety, health and welfare, and this experience is placed at the disposal of occupiers who for the most part readily avail themselves of it. The result is a steadily rising standard of conditions. Many examples might be given, but perhaps the most striking and readily appreciated is that of the highly developed fencing of all types of dangerous machinery which has been the outcome of administration of the simple requirement of Section 10 (c) of the Factory and Workshop Act, 1901, that "dangerous parts of machinery must be securely fenced"; or again, the highly scientific systems of dust extraction which have come into common use through the spread of knowledge acquired by the inspectorate and the employers from the daily study and discussion of these matters in the factories. In the same way the development of "welfare," as laid down in outline by Orders and Regulations, has reached through the co-operation of inspectors and employers a high standard which commands general approval.

#### CO-OPERATION WITH INDUSTRY.

*Co-operation in framing Regulations or Orders.*—Before passing on to deal with voluntary welfare, which depends mainly on the efforts of individual firms, it will be convenient to refer in more detail to the results of consultation between the Factory Department and associations of employers and workpeople. Conferences between Factory Inspectors and employers and workpeople have been encouraged by the Home Office for many years, and the Accidents Committee, appointed in 1908 to consider further precautions for reducing the number of accidents in factories, recommended in their Report in 1911 that this means of securing agreement as to the "methods of effecting what is the common object of all persons concerned" should be developed as fully as possible. As a result of such Conferences many important agreements have been drawn up. These deal mainly with protection of dangerous machinery, but those relating to the cotton and woollen trades include also provisions with regard to temperature, ventilation and the lifting of weights.

Just before the outbreak of war, agreements were also concluded with regard to iron foundries and tinplate factories, directed generally at the prevention of accidents, but including provision for first aid. As regards the former industry, an attempt was made to arrive at agreement with regard to lighting, but it was not found possible at that time to arrive at an agreed standard. Another agreement concluded before the war relates to the employment of women

and young persons in herring curing; besides regulating hours of employment, this dealt with first aid arrangements, improved sanitary conditions, and protection from the weather. The provisions of this agreement are interesting as dealing with welfare rather than safety or health, and a Welfare Order was subsequently made.

*Co-operation in enforcing Welfare.*—The extent and quality of the welfare facilities provided under Welfare Orders depends in some degree on the goodwill and energy of employers, but an intelligent interest on the part of the employees is no less essential. In some cases it was found difficult to get workpeople to make use of the accommodation and appliances provided by the employer, and there have also been complaints of misuse. It is significant that these complaints have now become much less frequent. While it is the business of the occupier to arrange for supervision of welfare accommodation, the best results under compulsory Orders can only be secured where the workpeople themselves realise not only that the provision is made in their interests but that it is really necessary. As an example of what can be done by way of enlisting the co-operation of employers and employed in securing a good standard of compliance with a compulsory Order, reference may be made to action taken in the Hull district in relation to the Welfare Order for the Oil Cake Industry. Here it had been found that the requirements of the Order had generally speaking been well complied with but that the accommodation provided had been subjected to rough treatment by the men, and a sub-committee of the Joint Industrial Council for the Oil Milling Industry, consisting of three employers and three representatives of the workpeople, drew up rules on welfare requiring that a joint committee of eight—four representing the employers and four the employees—should be formed in each mill. The duties of these representatives are to see that the rules safeguarding the welfare provisions are strictly observed, and to bring forward complaints and report any irregularities at the meetings of the Committee. The rules, which are explanatory as well as hortatory, instruct in the proper use of the welfare provisions (messroom, washing accommodation, overalls and drinking water), and the local joint district council decided that, with an accompanying circular, they should be posted in each mill in the Hull district. At a meeting of the Joint Industrial Council, held in 1923, it was decided to circulate these rules and conditions to all districts, and the employers in the compound cake manufacturing industry, which does not come within the scope of the Order, voluntarily decided to adopt the standard of the Order. On re-visiting at the end of last year, the Inspector found nearly everywhere a much improved state of things, the sole exception being a mill which had been standing at the previous series of visits. At all the others, the Welfare Rules and Orders were affixed in the messroom, the Committees had been formed, and there was general agreement that they

were working well. The Inspector was able, after these visits, to send circulars to the firms drawing attention to any irregularity noted, being satisfied that this could be remedied with the co-operation of the men.

As regards Regulations for Dangerous Trades, the method of consulting with associations of employers and employed has been steadily continued, and it is notable that two of the codes, those for woodworking and for the lifting of weights in the woollen trade, are based on detailed proposals by Joint Industrial Councils. A code, proposed by the Joint Industrial Council for the building industry, is nearing a final settlement after prolonged negotiations with the various associations concerned.

A striking example of the useful work of a Joint Industrial Council in a trade where welfare provisions are compulsory (in this case under a Dangerous Trade Regulation) is afforded by the pottery industry, in which the following rules have been adopted by the Council and accepted by the Manufacturers' Federation :—

1. Arrangements for preparing or heating and taking of meals :

(a) That arrangements be provided at each works for all workers residing at a distance of not less than two-thirds of a mile—ten minutes' walk—from their work, for preparing or heating, and taking their mid-day meal on or near to the works, and also for the provision of hot water for breakfast.

(b) That the operatives' representatives be invited to make suggestions as to ways and means of overcoming the difficulty of finding the necessary accommodation at the smaller works, for carrying out recommendation (a).

2. Supply of drinking water :

That a supply of drinking water be supplied on each works.

3. Supply of protective clothing :

That protective clothing be supplied for the scheduled processes only, as at present.

(In connection with this clause the following resolution has been adopted, viz. :—“ That manufacturers be urged to encourage the use of protective clothing generally on their works, and to take such steps by the buying of garments in bulk as will enable operatives to purchase their protective clothing at a cheaper rate.”)

4. Ambulance and First-Aid arrangements :

That ambulance and first-aid arrangements be provided on all works, and placed in charge of a qualified person; if such persons are piece-workers they shall be recompensed for any loss of time incurred in the execution of First-Aid duties.

5. Supply of seats in workrooms :

That seats be provided for women workers and young people where desired.

6. Facilities for washing :

That facilities for washing themselves be provided for all workers taking their mid-day meals on the works, in accordance with recommendation 1 (a); such washing accommodation as shall be provided for

all workers taking their mid-day meals on the works in accordance with recommendation 1 (a) shall also be available so far as it will extend to all other workers at the end of the day's work.

7. Accommodation for clothing :

That a hook or peg be provided for each person to hang his or her clothes upon.

*Safety First Movement.*—The field of safety has always been regarded as one in which the State should be operative, but it is now recognised that the ground cannot be adequately covered by statutory regulations.

One of the most important developments since the war which has taken place in the field of safety is the movement known as the "Safety First Movement." It had long ago been observed and has been repeatedly emphasised in the reports of the Chief Inspector of Factories that the majority of accidents are due to other causes than dangerous machinery. Analysis shows that a very large number of accidents are of the kind which can only be prevented by the voluntary efforts of the management and employees in the individual undertakings. To promote such efforts is the object of the Safety First movement, which aims at enlisting the interest and co-operation of all concerned. Action on these lines has been taken in the Government dockyards and in a number of private factories with striking results. The formation of the National Safety First Association in 1919 has assisted the spread of the movement, and it is becoming clear that further progress in the field of safety is likely to depend much less on additional statutory regulations or even trade agreements than on the efforts made in individual works by the management in consultation with representatives of the workpeople to warn the workpeople against dangerous practices and educate them in the adoption of safe methods. Investigation on the spot and careful recording of accidents and their causes are of the utmost value in preventing similar accidents in the future. The existence of a Works Committee greatly facilitates this, as it does other movements for ameliorating conditions. The recent Departmental Committee on accidents in shipbuilding and repairing advised the institution of Safety First organisations in the industry, and laid special stress on the need of appointing persons to supervise the carrying out of the statutory regulations and the general safe conduct of the work. What they say of this industry may be taken as typical of many. A similar recommendation was made by the conference of dock employers and workers which resulted in the issue of a revised code of regulations for the work of loading and unloading at docks. The success of the proposed building regulations will to a large extent depend on the arrangements which the industry itself can make for securing their observance. The nature of the work and the conditions under which it is carried on are such as to preclude adequate supervision by the unaided efforts of government inspectors.

## VOLUNTARY WELFARE.

*Origin.*—The effect of the industrial revolution on the lives of the workpeople is too well known to need more than a passing reference here. The tendency was to overlook the importance of the human element in industry and to concentrate on mechanical improvements. Welfare in its present form is the result of the movement towards amelioration of conditions of labour which, beginning in the early part of the 19th century, gathered strength as factory legislation developed and the enforcement of the Factory Acts revealed the need for still further improvement. Public opinion became gradually more and more enlightened as time went on, and before war broke out in 1914 the time was already ripe for a still greater advance than any that had been previously made. While it is true, as stated above, that the welfare movement originated long before the war, it is no doubt the case that the abnormal conditions of the period 1914–18 forced the pace at which the movement was growing, and centred attention on the need for it as an integral part of the industrial system.

The State, which had for the purposes of the community transferred large numbers of people, including many thousands of women and young persons, from their usual occupations and places of residence, felt the duty of making much wider provision for their comfort and health than had hitherto been usual, and also recognised the importance of the question from the point of view of production. The Health of Munition Workers' Committee, on which the Government Departments concerned were represented, was set up in 1915, and made recommendations dealing with the welfare of the industrial workers in the widest application of that term. Effect was given to these recommendations by Emergency Orders of the Home Office regulating the hours of women and young persons in munition works and attaching welfare conditions to any relaxation of the ordinary period of employment; by the development of a system of medical examinations and increased medical supervision in all explosive and other dangerous factories; by a special Board dealing with canteens; and by special inspection directed to secure improved welfare arrangements and supervision during the abnormal hours of work. In all these directions welfare was specially promoted during the war by the efforts of the Home Office, and when the Ministry of Munitions set up a Welfare Department to deal with national and controlled factories the two Departments worked in co-operation. It was during this period that efforts were made to induce employers to appoint competent supervisors to look after the welfare of the workpeople, to superintend the arrangements for meals, washing, clothing, &c., and both Departments urged this upon the attention of employers and facilitated the training and selection of suitable persons. The movement was, on the whole, successful, and in

suitable cases the duties of the welfare supervisors were extended in munition factories to the promotion of the welfare of the workpeople outside the factories. The Ministry of Munitions, moreover, had at its disposal considerable funds to be used for the provision of recreation and other outside welfare schemes. The scope and aim of welfare at this period followed the comprehensive lines laid down by the Health of Munition Workers' Committee as follows :—

Workrooms, which should be clean and wholesome, with work suited to the capacity of the employee.

Food, for obtaining which there should be adequate facilities at reasonable prices under restful and wholesome conditions.

Provision of cloakrooms and other accommodation, overalls, &c.

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.

Provision, where necessary, of suitable recreation outside of working hours, especially for those working under strain or on monotonous employment.

After the war, welfare work undoubtedly received a check. This was due to several reasons. One was that as the mass employment of women and young persons for war purposes automatically decreased at the end of the war, the amount of welfare work decreased proportionately. A second reason was that, during the war, expenditure on welfare arrangements was allowed to a large extent to be made out of excess profits and in other ways some relief from the financial burden was granted to the employer. A third, and perhaps the most important, reason was the great trade depression which set in in 1920 following the boom in 1919. It may be said that all these conditions contributed to arrest the progress which might otherwise have been very rapid, but work is now going ahead again, and with the recovery of trade a marked development may be expected.

Detailed study of the effect of arrangements of hours and other conditions of work on the health and working capacity of persons employed on munition work was recommended by the Health of Munition Workers' Committee and undertaken to a certain extent by both the Home Office and the Ministry of Munitions, and this side of the work has been continued by the Industrial Fatigue Research Board and other bodies set up by the Medical Research Council in consultation with the Home Office and other Government departments. The working of the Industrial Fatigue Research Board forms the subject of another memorandum in this chapter.\*

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\* See pp. 171 *et seq.*

*Present Position.*—The voluntary welfare movement has received great assistance from the foundation of the Industrial Welfare Society and the Institution of Industrial Welfare Workers, both of whom issue a monthly periodical in which, in addition to general information, details are given of new developments at individual firms. According to the statement made by the Director of the Society, the number of firms belonging to the Industrial Welfare Society is 700, covering 2,000,000 employed persons, and including every branch of trade and industry. About 1,300 Welfare Schemes are known to the Society to be in operation. Some of the finest examples are found in the engineering and shipbuilding and iron and steel trades. All the prominent firms engaged in the food industry have Welfare Schemes usually of a very comprehensive nature.

The nature and extent of the amenities provided vary in every instance according to the views of the employer or of the workpeople, or the special needs of the locality or the industry. In the majority of cases each welfare scheme is peculiar to the firm but there are several interesting instances of welfare schemes initiated and carried out by a Trade Association, and imposed with their goodwill on all its members. Perhaps the most striking example of co-operative welfare, bearing in mind the conservative traditions of the industry and the sturdy independence of the operatives, is that of the adoption by two separate amalgamations of cotton mills of a definite welfare policy. The scheme of one of these groups covers the mills of 38 associated firms, and 28 employ trained Welfare Supervisors, who work under the direction of a travelling Chief Supervisor responsible to the amalgamation. The number of workpeople affected by the scheme is over 20,000. A special feature of this scheme is the development of a medical and dental service. In the case of the other group the scheme extends to the mills of eight firms all employing a large number of operatives; co-ordination of the work is provided for by monthly meetings of the welfare supervisors who are employed by the individual firms. In both groups of mills a good standard of welfare equipment is aimed at, and the older mills are gradually being brought nearer to that attained in the modern mill.

From inquiries made by the Industrial Welfare Society and the Home Office, it appears that it is almost impossible for any firm to give a cash value to the results of their welfare work, but practically all are convinced that it is an advantage considered from the purely economic point of view. Diminished sickness, better time keeping, freshness at work and a general spirit of contentment, undoubtedly contribute to efficiency; and the improvement in the "labour turnover" (that is to say in the general stability of the staff and in the reduction of the numbers leaving and being taken on)

which is noted where conditions are exceptionally good, is a very great advantage. Although, owing to the bad trade conditions of the last few years, some firms have had to cut down the welfare work in order to effect economies, no instance is known where the work has been entirely abandoned.

A considerable amount of detailed information respecting the lines on which voluntary welfare work is actually undertaken at the present time will be found in the Annual Reports of the Chief Inspector of Factories as well as in the publications of the Industrial Welfare Society and Institute of Industrial Welfare Workers. The development of welfare will be found carried to its furthest point in the case of certain firms with whom care for the health and happiness of their employees is traditional. These appear to aim at the creation of a model community in which the workpeople shall find full scope for their physical, mental and moral development. Not only are the best possible arrangements made for the comfort of the workpeople inside the factory, and the work organised so as to involve the least possible strain, but all such matters are being considered in consultation with the representatives of the employees. Every aspect of corporate life inside and outside the factory is promoted by the management and the employees acting in co-operation, and there is a tendency to object to the term "welfare" as suggesting something super-imposed from without on the employees instead of as one of the many activities arising spontaneously out of the corporate organisation. The welfare schemes of these firms comprise such matters as housing, insurance against sickness and unemployment, thrift schemes, pensions, medical attention, education, recreation, amusements of all kinds, and arrangements for holidays. The work done by these firms has been invaluable in itself as setting an example not only to other firms but to the community, but so far as the arrangements made for the welfare of the workpeople while not actually in the factory are concerned, they cannot be considered as typical. The object of the educational schemes provided by many firms is to some extent no doubt to fit their employees for the posts which they occupy or may be intended to occupy in the business, but in some cases the scope of the education provided does not appear to be limited by this consideration. The value from the economic point of view of the mental and physical development of the employees is clearly recognised, as no doubt is the advantage of having the outside interests of the workpeople concentrated on the firm, so that it is regarded with something of the same kind of loyalty that attaches to a college.

These arrangements for the benefit of the workman outside the working hours are very striking, but it must be borne in mind that they represent only one side of welfare work and that not the most important. After all, the arrangements inside the factory that



are the primary concern of the employer, and from the workpeople's point of view also the most important thing, is that their work should be made at the worst tolerable, and at the best actively pleasant. No amount of amenities provided outside working hours can really compensate for work which is felt to be a burden.

Welfare equipment inside the factory, such as canteens, mess-rooms, cloak rooms, rest rooms, baths, lavatories, recreation rooms, while by no means constituting the whole of "welfare," is very important, and most large firms nowadays take such matters into consideration in planning new factories. Sometimes such provision is made on a very elaborate scale, but in most cases reasons of space and finance preclude this, and the essentials, such as are indicated in a series of pamphlets issued by the Home Office, can be secured without great expense. Expert advice is given in these pamphlets on Messrooms and Canteens, Cloak-rooms, Washing and Sanitary Accommodation, Seats, Protective Clothing and Welfare Supervision; and the publications (a list of which is given in Appendix III to this memorandum) have a large circulation. While the provision made in some large works is very striking, not the least satisfactory feature of the present situation is the efforts made by small firms to do what they can within the limits of their resources. In several instances, firms which could not have provided a messroom individually have combined to do so jointly.

The most characteristic feature of voluntary welfare is the effort to organise the work in such a way that the workman is able to enjoy his work and apply his energy to the greatest advantage. This means that workpeople have to be carefully selected in the first instance (often as regards juveniles in consultation with the Committees set up by the Ministry of Labour and Board of Education), and having been allocated to the particular jobs for which they appear to be most suited are changed from time to time so as to avoid staleness and to give reasonable prospects of promotion. Further, while it is inevitable that the workman should adapt himself to the machine, everything possible must be done to adapt the machines to the workman and to encourage the workpeople to make their own suggestions as to alterations in methods of work which would relieve strain and increase efficiency. It is this work which is the primary consideration of the Welfare Supervisor. Welfare work in this sense is really the direction of personnel, a subject which in this country, as well as in others, is now coming to be regarded as of very great importance to the success of any undertaking. In a number of firms one of the Directors is specially responsible for this side of the work. Business is not exempt from laws which regulate other forms of human association and requires for its success good, intelligent leadership.

## APPENDIX I.

## WELFARE ORDERS.

The Welfare Orders in force under Section 7 of the Police, Factories (Miscellaneous Provisions) Act, 1916, are of two kinds—

(1) Those of a general nature requiring provision of :—

(a) drinking water in every factory in which 25 or more persons are employed (9th October, 1917).

(b) first aid and ambulance arrangements in metal works (12th October, 1917).

(c) first aid and ambulance arrangements in sawmills and wood-working factories (8th November, 1918).

(2) Those applying to special classes of works as follows. (The capital letters show, as regards each, the particular welfare provision required. See footnote †) :—

Dyeing with use of bichromate of potassium or sodium (22nd March, 1918) .. .. .	A B C D E I
Fish curing (in Norfolk and Suffolk) (9th September, 1920) .. .. .	A B D E H L
Fruit preserving (15th August, 1919) .. .. .	A B C D E G I
Glass bevelling (3rd March, 1921) .. .. .	B C D
Glass bottles and pressed glass articles, manufacture (15th May, 1918) .. .. .	A B D J
Gut-scraping, &c. (28th July, 1920) .. .. .	A B C D E G
Hollow-ware manufacture and galvanising (31st December, 1921) .. .. .	C
Laundries (23rd April, 1920) .. .. .	A B C D E G J
Oil Cake Mills (21st July, 1919) .. .. .	A B C D E F G K
Shell factories (3rd July, 1918) .. .. .	G
Tanning with use of bichromate of potassium or sodium (22nd March, 1918) .. .. .	A B C D E I
Tin or terne plates, manufacture of (5th October, 1917) .. .. .	A B C D

A further Order was made on 8th November, 1921, under Section 2 (1) (e) of the Women and Young Persons (Employment in Lead Processes) Act, 1920, requiring the provision of messroom, washing accommodation, and cloak room in all factories and workshops in which dust or fume from a lead compound is produced, or the persons employed are liable to be splashed with any lead compound.

\* The provisions of these Orders relating to first-aid have now been superseded by the requirements of Section 29 (1) of the Workmen's Compensation Act, 1923.

† Note.—A—Messroom.

B—Washing accommodation.  
C—Protective clothing.  
D—Cloakroom accommodation.  
E—First-aid arrangements.  
F—Ambulance room

G—Facilities for sitting.

H—Supervision.

I—Cautionary notice.

J—Drinking water.

K—Bath accommodation.

L—Rest room.

## APPENDIX II.

## CODES OF REGULATIONS FOR DANGEROUS TRADES.

- Felt Hats, manufacture of (with aid of inflammable solvent) (12th August, 1902).
- File-cutting by hand (19th June, 1903).
- Mules, self-acting, spinning by means of (17th October, 1905).
- Wool, Goat Hair, and Camel Hair, sorting, willeying, washing, combing and carding (12th December, 1905).
- Flax and Tow, spinning and weaving of, &c. (26th February, 1906).
- Locomotives and Waggon, use of on lines and sidings (24th August, 1906).
- Paints and Colours, manufacture of (21st January, 1907).
- Yarn, heading of, dyed by means of a lead compound (6th August, 1907).
- Hemp, Jute, and hemp or jute tow, spinning and weaving of, &c. (28th August, 1907).
- Horsehair from China, Siberia, or Russia, use of (20th December, 1907).
- Brass, &c., casting of (20th June, 1908).
- Enamelling, vitreous, of metal or glass (18th December, 1908).
- Wool, East Indian, use of (18th December, 1908).
- Electricity, generation, transformation, distribution or use of (23rd December, 1908).
- Tinning of Metal Hollow Ware, Iron Drums, and Harness furniture (30th June, 1909).
- Lead, smelting of materials containing, manufacture of red or orange lead and of flaked litharge (12th August, 1911).
- Bronzing (11th April, 1912).
- Pottery, manufacture and decoration of, making of lithographic transfers, frits or glazes (2nd January, 1913).
- Ships in Shipbuilding Yards, construction and repair of (4th April, 1914).
- Refractory material, crushing, grinding, &c., and the manufacture of silica bricks (26th April, 1919).
- Lead, manufacture of certain compounds of (23rd August, 1921).
- Celluloid, manufacture, manipulation and storage (28th November, 1921).
- Aerated Water, manufacture of (19th December, 1921).
- Hides and Skins, handling of, &c. (29th December, 1921).
- India-rubber, manufacture, &c. (31st March, 1922).
- Chemical works (11th July, 1922).
- Woodworking machinery, use of (2nd November, 1922).
- Electric Accumulators, manufacture or repair of (19th January, 1925).
- Docks, Wharves and Quays, loading or unloading, &c., at (6th March, 1925).
- Woolen and Worsted Textiles (Lifting of heavy weights) (27th July, 1925).
- Grinding of Metals (Miscellaneous industries) (2nd September, 1925).
- Grinding of Cutlery and Edge Tools (26th October, 1925).

## APPENDIX III.

## WELFARE PAMPHLETS ISSUED BY THE HOME OFFICE.

- Protective Clothing for Women and Girl Workers employed in Factories and Workshops (1917).
- Welfare and Welfare Supervision in Factories and Workshops (1919).
- First Aid and Ambulance at Factories and Workshops (1920).
- Ventilation in Factories and Workshops (1920).
- Seats for Workers in Factories and Workshops (1920).
- Cloakrooms, Washing Facilities, Drinking Water and Sanitary Accommodation (1921).
- Messrooms and Canteens at Small Factories and Workshops (1923).
- Lighting in Factories and Workshops (1923).

## THE MINERS' WELFARE FUND.\*

[Furnished by the Mines Department.]

The Mining Industry Act, 1920, by means of a levy upon all colliery owners of one penny per ton of output, provides a fund for the improvement of social conditions of colliery workers. Contributions are calculated with reference to the output during the previous calendar year, and become due by 31st March of each year, the last being due on 31st March, 1926. The total period of collection is 5½ years, and the Fund at the end of the period will probably have received about 5½ million pounds.

The duty of allocating (subject to the requirements of the Act) the money from time to time standing to the credit of the Fund is vested in a Committee of five persons appointed by the Board of Trade, of whom one is appointed after consultation with the Mining Association and another after consultation with the Miners' Federation. The members of the Committee at present (June, 1925) are, Lord Chelmsford (Chairman), Mr. A. Leslie Wright (Mining Association), Mr. Herbert Smith (Miners' Federation), Professor E. L. Collis, and Sir Arthur Lowes Dickinson. The Committee are assisted by four Assessors, one being appointed by the Ministry of Health, one by the Board of Education and two by the Scottish Office. The Assessors have the right of attending meetings of the Committee, and of taking part in their deliberations, but not of voting.

The objects of the Fund are defined by the Act as "such purposes connected with the social well-being, recreation and conditions of living of workers in or about coal mines, and with mining education and research, as the Board of Trade after consultation with any Government Department concerned may approve."

*District Funds.*

The Committee are required by the Act to assign for the benefit of each of the 25 Coal Districts mentioned in the Act (omitting Ireland, which became excluded, and never made any actual contributions to the Fund), four-fifths of the amount contributed by the Owners in that District. This portion of the Fund in each District is known as the District Fund.

Before any money is allocated from a District Fund for a local purpose, the Committee must consult with the appropriate District Committee, which consists of representatives of the Owners and Management of the coal mines in the district, and an equal number of representatives of workmen in or about such mines. In practice

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\* Full details regarding this Fund can be found in the successive Annual Reports of the Miners' Welfare Committee. Reports covering the period up to the 31st December, 1925, are obtainable from H.M. Stationery Office.

this requirement has resulted in all local schemes being prepared and submitted to the Miners' Welfare Committee for approval by District Welfare Committees, who have undertaken the responsibility of seeing that the District Funds are equitably distributed in their Districts, and who frequently co-operate with Local Authorities, as provided in the Act.

The allocations made up to 30th June, 1925, for local purposes represent a total sum of £2,817,174. The number of approved schemes is 931, and the amounts allocated for different purposes are shown in the following table:—

	Money Allocated.	Percentage of Total Amount Allocated.
Recreation (chiefly Recreation Grounds and Institutes)	1,861,389	66·06
Health (Convalescent Homes, Pithead Baths, Ambulance and Nursing Services, &c.)	914,347	32·44
Junior Education .. .. .	20,828	0·75
Expenses of District Committees .. .. .	20,710	0·75
	£2,817,174	100·0

#### *General Fund.*

That portion (one-fifth) of the Fund not allocated to the District Funds is reserved for expenditure at the discretion of the Committee, subject to the approval of the Board of Trade. It is known as the General Fund, and the Committee have decided to devote it to national purposes, and to spend roughly half of it on Health and Safety Research and half on Senior and Advanced Mining Education. Up to the end of June, 1925 about £180,000 had been allocated for Research, and about £250,000 (mostly only on a provisional basis as yet) for Education.

That the Fund has been a great success is evidenced by the often-expressed desire on both sides of the industry to have it extended for a further period. A Bill for that purpose was laid before Parliament early in 1925.\*

#### INDUSTRIAL WELFARE OVERSEAS.

In compliance with the request of the Committee on Industry and Trade, the Department of Overseas Trade asked the Commercial Diplomatic Officers or Senior Trade Commissioners in certain

\* The Bill received the Royal Assent in December, 1925, under the title of the Mining Industry (Welfare Fund) Act, 1925. It extends the contributory period for a further five years.

countries to furnish reports on the extent, character and effects of industrial welfare schemes in those countries ; and the reports thus obtained form the basis of the present memorandum. They were compiled at various dates during the year 1925. In order to keep the enquiry within more manageable limits, statutory or other compulsory forms of welfare activity were expressly excluded from its scope, and the reports received therefore deal only with voluntary welfare schemes. This limitation, which must be kept in mind in reading the memorandum, involves two important considerations.

In the first place, information about the private and voluntary activities of employers scattered over a country is obviously much less accessible than information about the laws and official regulations of a country.\* Hence the compilation of the reports utilised in this memorandum no doubt presented difficulties of a special kind, and the opportunities of the various officers concerned for making enquiries and for collecting particulars probably varied a good deal.

In the second place, while it would not be correct to say that voluntary welfare activity begins where compulsory measures end, it is clear that the scope and character of voluntary welfare schemes must be materially affected by the compulsory or other statutory provisions in operation, and that a knowledge of the facilities thus afforded, as well as those voluntarily organised, would be necessary before any attempt could be made to compare one country with another. In any such comparison, many factors—industrial, climatic, ethnical and others—would also need to be taken into consideration.

The necessity of taking statutory provisions into account for comparative purposes may be illustrated by reference to the position in the United Kingdom, where, through State or municipal agency, many of the facilities included in the general description of welfare schemes on page 200 are provided for the public benefit. In the first place, reference may be made to the comprehensive provision for sickness, unemployment, old age, &c., which is made through the agency of the State or public authorities. The system of National Health Insurance was established by Statute in 1912, and provides medical attention and medicines and cash benefits during sickness (with dental and other additional benefits in many cases) for practically the whole industrial population. The total benefits in 1924 (including non-cash benefits) amounted to over £26,000,000. The Workmen's Compensation Acts, extending from 1897 onwards, prescribe statutory scales of compensation for workmen in case of accident arising out of and in the course of their employment. These

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\* In the case of the United States, a good deal of information about voluntary welfare has been collected by the Federal Government. See, for example, the Bulletins issued by the Bureau of Labor Statistics on "Welfare Work for Employees in Industrial Establishments in the United States" (138 pages, 1919), "Housing by Employers in the United States" (283 pages, 1920) and "Personnel Research Agencies" (207 pages, 1921).

Acts also embrace practically the whole industrial population. The total compensation paid in 1924 in the seven large industries which make returns\* amounted to nearly £6,750,000. The Unemployment Insurance scheme was initiated by Statute in 1912 in respect of seven industries covering about four million workpeople, and an extended system covering practically the whole industrial population (except agriculture) came into operation on 1st January, 1921. The total benefits paid in 1924 amounted to about £38,000,000. Provision is also made under the Poor Law for the relief of destitution by local authorities, and the total expenditure in the year 1923-4, excluding administrative expenses, &c., amounted to about £39,250,000. A system of non-contributory old age pensions for persons over 70 years of age was established by the Act of 1908, while pensions for blind persons who have attained the age of 50 were accorded by the Act of 1920, the total payments in the year 1923-4 being over £23,000,000. A new system, which includes not only pensions for old people after the age of 65, but also pensions for duly qualified widows or orphans, was initiated by the Widows', Orphans' and Old Age Contributory Pensions Act, 1925. The estimated amount of widows' and orphans' pensions in 1926-7 is nearly £11,000,000. In addition, there are various provisions on account of sickness and infirmity, arrangements for providing meals and medical services to school children, &c.†

Secondly, as regards welfare inside the factory or at the place of work, the memorandum on page 179 shows that, in addition to elaborate statutory provisions for securing the safety, health and well-being of industrial workers, special powers exist and have been exercised for rendering compulsory, either generally or in specific industries, certain welfare facilities for the benefit of such workers in connection with their employment. The provision of first-aid facilities is compulsory in factories generally, as is also the provision of drinking water when 25 or more persons are employed. The other matters that may be compulsorily prescribed include messroom, cloak room and washing accommodation, rest rooms and the supply and use of seats in work rooms; and the memorandum shows the extent to which these facilities have been made compulsory.

Another sphere in which the State has intervened is that of housing, where large sums of money have been expended in grants towards construction of houses for the working classes. Out of the total of 586,000 houses built since the Armistice up to December, 1925, 364,000 were built with the aid of subsidies from the State and Local Authorities. During the same period, the amount paid by the State was approximately £42,000,000, of which £9,500,000 represented lump sum grants. A continuing annual subsidy will be

\* Shipping, factories, docks, mines, quarries, constructional works and railways.

†† For full details of all the schemes of public assistance, see report of the Committee on Public Assistance Administration, Cmd. 2011—1924.

payable by the State for periods varying from 20 to 50 years, which on the basis of present commitments amounts to approximately £8,000,000 per annum. The amount contributed by Local Authorities since the Armistice is not known, but cannot be less than £5,000,000.

In the absence of corresponding detailed information for each country, it will be clear that the particulars contained in the following statements regarding voluntary welfare activity in the countries dealt with, should be regarded merely as a summary of the information which was found to be available, and not as affording the means of comparing the lot of workpeople in the various countries from the point of view of welfare provision.

#### NOTES ON INDIVIDUAL COUNTRIES.

Generally speaking, the features included in the various welfare schemes operating in the European countries dealt with in the memorandum are very similar, though no doubt individual schemes may include only one or two of those features, and very few, if any, include them all. Among these features are: first-aid and ambulance facilities; restaurants or canteens, and other arrangements for improved healthfulness and comfort in the actual place of employment; facilities for physical or mental recreation or for instructional utilisation of leisure hours; provision for workers and their dependants of improved housing, of hospitals, of free medical advice and medicaments, of visiting nurses, or day nurseries in factories for children of mothers working thereat; co-operative or other shops for the sale of necessary articles to workpeople at reasonable prices; insurance schemes for accidents, &c.; savings banks; suitable employment or pensions on the advent of reduced working capacity or of old age; educational advantages for workers' children.

It has not been thought necessary to repeat these particulars in each of the notes relating to European countries, but some details have been given in the case of Canada and Japan, where special local conditions influence to some extent the form which welfare work assumes. The note on the United States explains how, in addition to the features enumerated above, other factors bearing more directly on industrial relations are dealt with under the heading of "Personnel Administration."

#### France.\*

[Summary of information received from H.M. Commercial Counsellor, Paris.]

The benefits usually included in comprehensive welfare schemes are accorded throughout the mining industry (to 350,000 persons), in a number of the leading metallurgical and engineering firms (employing

\* As regards welfare facilities provided in connection with Family Allowance arrangements see p. 124.



perhaps a total of 100,000 to 120,000 persons), in the leading rubber concerns (say to 25,000 persons), in important chemical works, and in numerous textile factories; in the transport trades (e.g. to 500,000 railway men on the seven main systems, to tramway and other public transport workers) and in governmental employment whether State, county, municipal, e.g. to 70,000 workers in military and naval establishments, to 160,000 postal servants, to workpeople in State powder, saltpetre, tobacco and match works, to those engaged in maintenance of national roads, public buildings, public order, educational institutions, and to those in municipal gas, electricity, water, road and other services. As regards commercial occupations, welfare schemes of varying scope are quite frequently found for all grades of employees in the old-established large commercial undertakings, whether distributive stores, wholesale merchants, banks, savings banks, insurance companies or selling offices (e.g. in Paris and Lyons) of suburban or provincial factories.

The welfare movement, which in France may be said to have originated in mines and in great metallurgical, engineering, chemical and textile establishments at a time when the principle of non-intervention in relations between employers and employed was held sacred by the State, had already made great progress before 1914, but its scope and prevalence have since assumed far greater dimensions. In such matters as greater air space, better light, more modern sanitary arrangements, and better facilities for personal cleansing before and after work, for change or storage of clothing during working hours, for taking meals at place of employment, general improvement is distinctly observable over a large fraction of French industry owing to the vast volume of new factory construction which has taken place. These new factories have been erected not only in the devastated areas, but also in the rest of France, both during the war either for war production on the largest scale, or for replacement of the factories in the great industrial areas occupied by the enemy, as well as since the war by the great trade activity that has led to new construction outside the territory overrun in the war, e.g. in the Paris, Lyons, Grenoble, Bordeaux, Troyes and other areas.

As to welfare provision of a material kind outside place of work, progress has been especially noticeable as regards housing. This, again, has been immensely stimulated by the necessity for employers to contribute substantially to the replacing or reconstruction of the several hundred thousand ruined or damaged dwellings in the devastated regions, as well as to the housing of workers for the newly created factories in other regions, especially those in rural sites. The remarkably good trade of the last four years has likewise promoted this important branch of welfare work. The intense shortage of labour led employers, in order to attract and retain workers, to build dwellings; and the great tide of industrial

immigrants, which must have totalled over half a million net (i.e. after subtraction of the recorded departures from the recorded arrivals), necessitated special building schemes, as, for example, by the coal-mining industry, which has now to house over 300,000 instead of 200,000 workers before the war. Other industries in which attention to improved housing has been conspicuous are the metallurgical and engineering, chemical rubber, and certain textile trades, and the railways. The dwellings, which are practically always superior to the prevalent local type, are provided at rents either nominal in amount or far below the local levels. Such activity is not entirely a post-war development, but since the war it has been on a considerably larger scale at least in certain important industries.

The provision in great French undertakings for the care of workers in sickness is very considerable. In the iron mines, most concerns, besides giving free medical advice and medicine, have infirmaries or hospitals. The coal mining industry has devoted great attention to this side of welfare work; and the sickness provision by the main railway systems, which employ 500,000 persons, is considerable.

Aid funds, entitled *caisses de secours*, are found in larger undertakings in most industries, and are especially common in the mining and metallurgical undertakings. These funds, which were mostly established in the middle period of the 19th century, are meant to ensure the wage earners and their families medical advice and medicine in case of illness, cash payments to injured workers, pensions to incapacitated or infirm workers, and to wives and families of those killed, and to provide bounties in cases of child-birth. As a rule these funds are financed by contributions both from employers and workpeople, but the former generally supply free office space and clerical management, and provide for the medical and pharmaceutical costs. Certain large concerns appear to finance them completely, without requiring contributions from workers.

A special organisation was created in 1917 by the mining and metallurgical trades to combat tuberculosis. Its work has been hitherto devoted to stimulating the utilisation by industrial workers of the public anti-tubercular dispensaries created under a law of 1916, to the exercise of intensive propaganda work among the workers, and to the construction of a great sanatorium with 300 beds with large surrounding property in the French Alps near Grenoble.

The provision of various educational facilities, whether general, vocational or domestic, for the children of both sexes, is undertaken by a comparatively large number of concerns, especially in the mining and metallurgical industries. The railways also devote special attention to assisting the educational welfare of their employees.

A considerable number of the principal firms in most French industries had established schemes for providing for workers on the advent of incapacity or old age before the enactment of the 1910 pensions law. At the present time, many prior established schemes co-exist with the statutory scheme, and whilst the obligations of the latter are fulfilled by the firms, under the arrangements made they provide greater benefits. The Iron and Steel Manufacturers' Association had established in 1894 a pension fund for the workers employed by their members; it rested on payments made by employers and aimed at securing a retirement pension to every wage-earner at sixty years of age who had worked at least twelve years in an affiliated factory. At the end of 1923 it insured about 67,000 workers. Now, as the statutory pension appears too modest, it has added a scheme which provides a higher pension, an invalidity pension not statutorily provided, a pension for survivors, and various advantages for those with families. Workpeople make a minimum payment 1 per cent. of wage. Employers add a minimum of 1 per cent., with additions proportional to the years of services of the workpeople (e.g., 2 per cent. for those with eleven to twenty years, and 3 per cent. for those with over twenty years). Apart from the large number of persons insured by the Association, a number of great firms possess their own old age schemes (worked, of course, in conjunction with the statutory scheme) which appear in most cases to be upon a contributory basis. The miners come under a specially advantageous pension law.

In general, over and above the legal pension, workpeople in most of the larger industrial establishments in most French industries receive additional sums which are provided either by the aid funds (*caisses de secours*) or by additional pensions funds, to both of which the majority of employers contribute.

#### Germany.

[*Summary of information received from H.M. Commercial Secretary, Berlin.*]

The welfare movement commenced in Germany 40 to 50 years ago in the Saar, where it was initiated by the large concerns, chiefly with a view to counteracting the growing influence of the trades unions; and the latter found it extremely difficult for a long time to establish themselves in that district. From there the movement spread to the Ruhr. It may accordingly be said to have had its origins in the "heavy industry" of Western Germany, and to this day it is probably in those industries that the welfare organisation will be found to be at its best. The metal and electrical industries were the next to institute welfare schemes, and at the present time all the larger concerns of every kind (employing 1,000 workmen and more) and many of the medium sized ones in Germany have some

such schemes. The variety of schemes is very large, but the features included are similar to those found in other countries. Although it is so widespread in Germany as to be practically universal, the welfare movement is an entirely individual matter for each firm to deal with as it thinks best, and there is no centralisation, not even for the training of supervisors, the latter being supplied by the firm. On the other hand, the compulsory social benefit organisation of the Reich and of the States is so strictly organised, that it would probably only be felt as a duplication if a similar private system were created.

It is not possible to express any opinion as to the effect of the existing welfare schemes upon the efficiency and productive capacity of the workpeople. In those cases where pension funds exist, the workmen are naturally reluctant, after subscribing, to forego the benefits by withdrawing, or by incurring dismissal. It also seems to be generally admitted that the welfare schemes do, on the whole, promote the well-being of the workman, particularly where medical provision is made for him and his family in case of need, and where he ultimately becomes entitled to a pension. As far as the costs of production are concerned, it is not thought that the welfare schemes, as practised in Germany, add to such costs because their existence enables the employers to keep wages at a lower level than would otherwise be possible.

The German trade unions are not favourably disposed towards the welfare movement in industry; primarily, because they consider that the well being of the working classes is a public duty which should not be left to the discretion of individual firms, and, secondly, because the existence of welfare schemes lessens the influence of the unions themselves.

#### Italy.

[*Summary of information received from H.M. Commercial Counsellor, Rome.*]

In Italy, welfare work has become the subject of State action. A Decree, dated 1st May, 1925, established in Rome under the control of the Ministry of National Economy an organisation called the "Opera Nazionale del Dopolavoro," the objects of which, as defined in the Decree, include:—

(a) The promotion of the healthy and profitable enjoyment of the working-people's leisure time by means of institutions for the purpose of developing their physical, intellectual and moral capacity.

(b) Provision for the increase of such institutions, giving them the necessary assistance.

(c) Making known by publications and other means the advantages of such institutions, and the results obtained by them in elevating the working classes.

The funds of the "Opera Nazionale" consist of an initial contribution of 1,000,000 lire from the Ministry of National Economy, and an annual State contribution of 400,000 lire to promote the development of the welfare schemes and institutions; together with contributions from Public Administrations, corporations, private individuals, &c.

All the principal appointments to the institution rest with the President of the Council of Ministers. The constitution of the Council includes one representative of each of the following ministries: National Economy, Education, Interior and Finance; seven members chosen from particularly competent persons; ten members designated by corporations, associations and private individuals who are members of the Opera Nazionale.\*

The Decree provides that welfare corporations shall be formed in each district, managed by committees composed of persons with experience in welfare work, or proposed by members of the Opera Nazionale resident in the district. The principal duty of such corporations is to promote the development of the welfare movement in their respective districts.

It is understood that the Italian Government strongly support the Opera Nazionale Dopolavoro, and that they are fully alive to the advantages to be obtained from a disciplined organisation of welfare work as a means to combat Communism.

[*Summary of information supplied by the Director-General of the Opera Nazionale Dopolavoro, March, 1925.*]

(a) Welfare schemes are most common in the metallurgical, engineering and textile industries. The State railways† and the Rome Tramways Company are developing welfare work. Some of the banks and large shops also interest themselves in the welfare of their staffs to a greater or less extent.

(b) Welfare work has directly improved the position of the workmen, both from an economic point of view and as regards their health and home comfort; and it has also proved to be a harmonious factor in industries when disinterestedly applied by the employers and when it does not imply reduced wages.

(c) The "old style" trades unions and labour unions are opposed by tradition and principle to measures for the uplifting of the workmen by the employer. The Corporazioni Sindacali Fasciste have,

\* In the first instance the appointment of representatives of members of the Opera will be made by selection from specially qualified persons on the proposal of the President of the Council of Ministers, after consultation with the Minister of National Economy.

† It has since been reported that a Royal Decree Law, dated 25th October, 1925, has been issued providing for the institution of a head office for welfare organisation at the Department of the Italian State Railways. The Railway organisation will work in accord with the National Welfare Scheme.

however, developed the welfare movement on a large scale. They have organised the Dopolavoro (loisirs) in the chief provinces, and the organisations have become educational and recreative centres, attached to the syndicates.

(d) Industrial welfare work schemes, in the form in which they were commenced some thirty years ago by certain Italian firms, were inspired by philanthropy. This movement never proposed, or proposes, to combat workmen's organisations. At the present time a complete change of ideas and methods has become manifest in Italian industrial welfare work, inspired by the Opera Nazionale Dopolavoro. It is the intention of this organisation to compel industrialists to pay regard to the well-being of their employees after working hours. The movement is becoming a national problem which greatly interests the Government and public opinion. Conscious of the serious problem of the relations between capital and labour, from the point of view of the economic development of the country, the Italian public realises that the industrialists could largely contribute to dissipate uncertainty, and in spreading a feeling of security, by devoting themselves to welfare work, which, apart from any question of humanitarian motives and the spirit of justice, is extremely advantageous with regard to improvement in the quality and quantity of production. All the annual reports of the large industrial companies this year make provision for welfare work, thereby showing that the Italian employers have given heed to the pressure exerted on them by the Opera Nazionale Dopolavoro.

#### Belgium.\*

[*Summary of information received from H.M. Commercial Secretary, Brussels.*]

Welfare schemes previous to the war were not common in Belgian industrial life. Since the Armistice, however, they have become much more general, and are steadily growing. They are most common in the metallurgical and coal industries. In the new Campine coalfield, cheap dwellings (garden cities), hospitals, recreation grounds, stores, &c., are a common feature. The need for attracting and maintaining labour, the local supply of which was deficient in this new industrial area, was one of the main reasons for these institutions.

Employers oblige all their workmen to become members of, and pay subscriptions to, the various funds instituted by them, on the understanding, however, that if a man leaves their employ, he, *ipso facto*, loses all claim to benefits. A bill for old age pensions to employees has recently become law under which the workmen can have their subscriptions, and consequently accruing benefits, transferred from one "caisse" to another.

\* As regards welfare facilities provided in connection with Family Allowance arrangements, see p. 125.

The various employers' schemes are unfavourably regarded by the "Syndicats," which run their own "caisses," dispensaries, &c. The schemes thus form a field of rivalry between the employers' and the socialist organisations.

As to whether efficiency of work is promoted and other such national advantages obtained, it is difficult to say. Much depends on the director in charge of the welfare schemes, and the spirit in which the schemes are framed and administered. On the whole, the results from the national point of view are believed to be good. Relations between employers and employed, if not improved, are at least facilitated, and the moral influence on the children and families is good.

#### United States of America.

[*Summary of information received from H.M. Commercial Counsellor, Washington.*]

The welfare movement is one of great importance in the industrial life of the United States, and has contributed very largely not only to the high level of living and working conditions of the industrial population, but also to the high standard of productivity of the individual worker.

During the years 1916-17, the U.S. Bureau of Labour Statistics carried out an investigation of this subject throughout 31 States of the Union, and the results of this enquiry are embodied in a report issued by the Bureau in February, 1919, entitled "Welfare Work for Employees in Industrial Establishments in the United States." This report conveys a general idea of the scope of the welfare movement in the United States. It refers to conditions existing some time ago, but progress has followed along the same lines since at a rapid pace. An important change has taken place, however, in the designation applied to this form of work. The original idea of the movement was the improvement of the general well-being of the worker, and it frequently had philanthropy as its base. The inherent objection of the worker to anything in the nature of paternalism on the part of the employer, and suspicion that the object of the movement was to counteract union organisation, brought the term "welfare" into disfavour. It has now almost passed into disuse and has generally been supplanted by the term "Personnel Work" or "Personnel Administration."

With the change of term came a change of attitude in concerns where personnel work had reached a high point of development. The original functions of the welfare worker (usually a woman) included duties which are now generally called "Service," such as lunch room organisation and management, nursing services, rest rooms, locker and wash rooms, recreational facilities, clubs, benefit societies and similar matters of a social benefit nature. These were all more or less directed towards the personal needs of the individual

worker and had no regard to scientific management or production. As the movement developed, many of these functions became so well established as to become part of regular factory routine, and a definite tendency to ally personnel work very closely with the production end of business became apparent. The realisation of the connection between personnel work and production soon led to the combination with the ordinary welfare work of such matters as the engagement and selection of work-people, training, promotions, wages and production standards, working hours, job analysis, rate setting, &c., and other factors affecting regularity of production.

Personnel administration then became too wide in scope for the former welfare worker, and it became necessary to place it under the control of an industrial relations director or a higher official such as a vice-president of the company. The personnel department thus became a very important unit in factory organisation, and as an example of this, the organisation of the personnel department of one large undertaking may be quoted. This department is responsible for the following activities :—

- Centralised Employment Procedure.
- Accident Prevention.
- Compensation for Industrial Accidents.
- Surgical Service.
- Rehabilitation of Injured Employees.
- Employees' Benefit Association.
- Medical Service.
- Stock Ownership and Investment Plan.
- Occupational Rating.
- Employee Representation.
- Pensions.
- Educational Work.
- Minimum Age for Women Employees.
- Hours of Labour.
- Sanitation.
- Wage Payments in Cash.
- Social and Recreational Activities.

A fair idea of the American conception of personnel work can be gained from the following definition put forward by the authors of a book on Personnel Administration :—

“ Personnel Administration is the direction and co-ordination of the human relations of any organisation with a view to getting the maximum necessary production with a minimum of effort and friction and with proper regard for the genuine well-being of the workers.”

Competition between American industrial firms has been compelling them all to seek new economies in production. So far as the price of raw material, equipment, machinery, purchasing skill and the ability to make prompt delivery are concerned, they are all,



generally speaking, on a level, so that their success in competition must largely depend, now and in the future, on their relative ability to eliminate waste—especially the waste due to a large labour turnover. This has been one of their most serious internal problems, and its magnitude may be illustrated by the case of one concern employing a working force of 900 men. This concern reported, a few years ago, that in order to maintain this average number of workers, they were obliged in the course of an average year to hire no less than 2,500 persons. It cost them on an average \$85 to introduce each new operator, and they estimated their loss from an excessively high labour turnover at about \$150,000 a year. Their case was by no means unusual, and a widespread similar experience has greatly helped to promote the welfare movement, in its various aspects, as a means of keeping the workers more contented.

As regards the effect of welfare schemes on unit costs of production, the general opinion expressed is that the cost of such schemes is an added charge to the cost of production, which is offset, possibly only in the long run, by the increased efficiency and productivity of the worker.

As a broad generalisation it may be said that welfare schemes exist in the majority of trades and industries as well as in most organisations of appreciable size connected with commerce and transportation. Industrial plants (where welfare work is perhaps most necessary) are said to have been slower than, for example, departmental stores in developing personnel departments, but in some of the largest industrial organisations very elaborate welfare systems exist. In a country of the size of the United States, industrial operations are often carried out in areas which are comparatively isolated from the social point of view, and it is essential that some provision should be made by employers to provide certain social services directed towards the maintenance of the health and happiness of their employees and thus preserving their productive capacity.

It is extremely difficult to state in other than general terms to what extent increased productivity is due to welfare as distinct from other factors, such as improved methods of operating, better machinery, the increasing skill of the worker, &c. A number of large American manufacturers who have expressed their views on this point are all of opinion that this work does promote the efficiency and productive capacity of the workpeople. The point frequently emphasised is that an effective personnel department leads to increased labour stability, and by means of training schemes helps materially in raising the standard of efficiency of the individual worker.

There is no doubt that in many industries long periods of harmonious relations between employer and employees have been largely due to such factors as profit-sharing schemes, bonus schemes, workers' councils, co-operative schemes and collective bargaining together

with various forms of employee representation. Most of these are perhaps outside the scope of what is generally understood to be welfare in other countries, and it is doubtful whether the provision of the ordinary welfare services alone would have a material effect in promoting harmony in industry. It is more likely that this is achieved to the greatest extent in those industries where the workers have a voice in the management of the organisation. This is a phase of industrial relations which has been highly developed in some American industries.

The prosperity and high standard of living of the American workpeople are well known. It is unlikely that this could exist to the same degree without the many facilities provided by American employers to maintain the health and general well-being of their employees and to secure their co-operation in producing cheaply and yet maintaining a high level of wages. The medical services provided are particularly valuable in maintaining the health of the worker, and in a large number of plants these services are available for employees' wives and families. Other factors, such as housing schemes, maternity homes for wives of workers, convalescence homes, and a multitude of facilities for recreation, added to the high standard of living rendered possible by the high level of wages, have placed the American workpeople in a very enviable position.

#### *Attitude of labour organisations.*

As explained above, welfare work has now become part of scientific management, and it is not proclaimed as being intended as a means of combating organised labour. Nevertheless, there is reason to believe that the movement tends to retard the progress of unionisation. So long as union membership clearly offers to the employee tangible advantages and protection which he would not otherwise enjoy, he will be a supporter of the organisation. If these comparative advantages are removed, the incentive for union membership will to a considerable extent disappear. The extension of the welfare movement into the field of industrial relations and the establishment of systems of co-operation whereby the employees have a voice in the direction of industry have done much to dispense with the need for union organisation. In this respect the movement tends to some extent to supersede trade union organisation.

From this point of view it is probably the case that organised labour in the United States has always regarded welfare schemes with scant favour, and has occasionally directed attacks at their more vulnerable aspects. Thus some of the personnel activities were questioned by labour organisations at one time on the grounds that they were paternalistic. Particular objection was taken to physical examinations as it was feared that many rejections would result from it. Inasmuch, however, as the benefits intended to be conferred on the workers rarely, if ever, affected rates of money wages or hours

of work, the unions refrained from open condemnation of welfare work as a whole, and it would not now be practicable to start a campaign against them. It is true that there is much antagonism on the part of unions to employee representation plans because such plans do not provide for any participation by leaders of the unions; but the weight of evidence available points to the conclusion that, on the whole, organised labour does not now regard modern welfare services unfavourably. Labour has in some instances expressed a readiness to co-operate in efforts to increase production with consequent increase in earnings, and has, in fact, been instrumental in securing improvements in welfare services available for workers

#### Canada.

[*Summary of information received from H.M. Senior Trade Commissioner, Montreal.*]

The development of the welfare idea in Canada appears to have been on much the same lines as in the United States of America. Welfare work is regarded as being definitely included in the subject of industrial relations and comprises such matters as the establishment of Works Committees and the selection and occupational rating of employees.

One feature which is common both in Canada and the United States is the "House Organ" or "Employees' Magazine." The Canadian Department of Labour issued a Bulletin on the subject in October, 1921, the introductory paragraph to which states that "the publication of such a magazine is being found more and more to be one of the most effective agencies for the restoration of that direct contact between the employer and his workpeople which formerly existed, but which has largely disappeared in the vast and complicated industrial enterprises of the day . . . . The number of such journals is already considerable, and with the growth of the movement towards joint councils is likely to be considerably increased." The magazines are used by the employers to convey to their workpeople their desires and difficulties, and they are often used for presenting ideas on safety and health. Some business men, it is said, consider such a publication the most important item in any welfare scheme.

Owing to the very varying economic and social conditions which prevail in the various regions of Canada, examples of various forms of welfare work may be found. Thus in *Ontario* the welfare schemes which are common among the various manufacturing concerns and in the banking and insurance companies and department stores are of the usual type, including the supply of meals (often at cost price) to employees, and facilities for indoor and outdoor sport and recreation. One of the most prominent features of welfare work in this area is the system of group life insurance. Another important aspect of this work in various industries is the establishment of shop

committees comprising representatives of the management and the workpeople to deal with questions that arise between employers and employees, including in many cases questions pertaining to wages, bonus, and piece-work rates. It is stated that these committees form a satisfactory means of dealing with complaints regarding conditions of work.

In *British Columbia*, the welfare scheme of a mining and smelting company near Vancouver furnishes an example of welfare work under conditions somewhat different from those usually found in association with such work. It is the stated policy of the Company to foster general community spirit and welfare work, without the touch of paternalism which is detrimental to the general success of such movements. The most important feature is the operation and management by the Company of a Co-operative Store in connection with which a Committee, elected by the workpeople, confers with the stores management as regards betterment of service, &c., affecting the camp as a whole. At the main camps of the Company reading rooms are provided and recreation halls, where dancing and indoor athletic games may take place during the winter. Summer games are also fostered. Lectures are arranged and mass meetings organised to display Safety First and First Aid pictures, together with practical demonstrations. The Company maintains and operates a well-equipped hospital, with resident nurses and attendant doctor, ordinary service to the families and men being free.

*Effect of welfare work.*

The general opinion of the firms consulted appears to support strongly the view that welfare work promotes efficiency, good will and contentment.

One very large organisation with establishments both in the United States and in Canada bears general testimony to the value of welfare work as affecting efficiency and productive capacity, industrial harmony, and workers' well-being, and refers in particular to the increase in labour stability (or reduction of labour turnover) and reduction of time lost. On these points it states (1) during the seven years in which centralised employment procedure has been in effect it has very definitely tended to decrease the amount of labour turnover, and, more important still, has led to a very significant increase in the stability of labour forces. In April, 1925, employees of the company had been in its service continuously as follows :—

3 years and over	56 per cent.
5   "   "	47   "
10  "   "	30   "

(2) As regards accident prevention, the Company state that a reduction of more than 80 per cent. in both the frequency and severity rate of accidents has been accomplished, and that the expenditure

of money and effort by officers of the Company, and the loyal co-operation of its workmen in the safety movement has resulted in a definite financial saving to the Company and the saving of life, limb and suffering to employees. In comparing 1924 with 1923, a 17½ per cent. improvement in lost time was effected and 12 per cent. reduction in compensation costs per \$100 pay roll.

Another company established at Regina, Sask., states that the welfare facilities provided have tended to make the employees more contented since the labour turnover is not nearly so large as a few years ago when no attempt was made to provide recreation.

#### India.

*[Summary of Information received from H.M. Senior Trade Commissioner, Calcutta.]*

Welfare schemes in India are still in the early stages of development, and though a definite beginning has been made by a score or so of public-spirited firms, whatever work is being done is of an isolated nature and no comprehensive statistics can be supplied.

Welfare schemes are to be found chiefly in the cotton spinning and manufacturing industry, e.g. at a number of mills and groups of mills in various parts of the country—Nagpur, Ahmedabad, Madras, Cawnpore and Bombay. Welfare schemes are also in operation at :—

- (a) A group of woollen mills and tanneries at Cawnpore.
- (b) The iron and steel works at Jamshedpur, and at Kulti ; and to a lesser extent, those at Asansol.
- (c) Some of the large railway establishments, e.g. in Madras.
- (d) Individual establishments in certain other industries.

Many so-called welfare schemes are in reality necessities in the peculiar conditions of many Indian industries. For example, the three iron and steel works mentioned under (b) above were erected on almost virgin ground and the companies were forced to house their labour and to provide sanitation, dispensaries, medical attendance, hospitals, &c., otherwise it would have been impossible for them to carry on under modern conditions. Similarly, the provision of schools and technical instruction is much more necessary in a country such as India where elementary education is still primitive, and where technical instruction is only given in a few large cities. It should also be remembered that there is a constant shortage of labour in India, particularly of the semi-skilled and skilled types. The rapid increase of industries in 1919-20 brought about a serious shortage of artisans, and wages rose very considerably. The aim of the Indian employer must therefore be to keep his skilled

labour force by offering attractions of all kinds. As regards unskilled labour, the employer is always faced with the annual return to the land at harvest time and a high rate of absenteeism throughout the year.

Except perhaps to a slight extent in the case of the Bombay mills, there is as yet no purely industrial section of the population in India. Most of the labour simply migrates to the towns for a period in order to reduce its debts or to accumulate funds for a family ceremony. Just when it is becoming efficient and trained, it then returns to the family village; and so the process goes on. Most of the welfare schemes in India would appear to be aimed at securing greater continuity of employment, and raising the general standard of physical fitness and capacity for work of the employees.

A further difficulty in the way of welfare work may be exemplified by reference to the Madras Presidency, where a large proportion of the labour employed is of a casual nature, and in many cases labour is supplied by contractors, and is therefore not wholly under the control of factory owners. The coolie who one week is carrying bags of rice or nuts in a factory may the following week prefer to labour in the fields. Besides this, there are certain classes of factories, e.g., cotton ginning and pressing, coffee curing, nut decorticating, which work only during a certain season, or seasons, of the year, and these factories do not provide employment for their labourers except during the seasons.

With such a large proportion of labour of this kind there is not much scope for welfare schemes except in big factories and railway establishments. The small factory owners can neither pay nor arrange for these schemes, nor can the casual labourers expect such concessions from their employers, as their employment itself is not permanent.

#### Japan.

*[Summary of Information received from the Director of the Social Welfare Bureau, Ministry of Interior.]*

1. The most progressive Industrial Welfare Schemes in this country are to be found in textile mills employing large numbers of female operatives and especially in the cotton-spinning industry. Of factories employing male labour, the metal-working, shipbuilding, carriage-building, and implement-making industries may be mentioned; these arrangements being met with particularly in the large modern factories.

2. Welfare schemes may be divided broadly into educational and cultural schemes, schemes for recreation and amusement, for sanitation, and hygiene, for financial assistance and relief, for the supply of the necessaries of life, for the encouragement of thrift and so on.

In other words, sometimes the working hours are split up, or off-time is utilised, to give employees a middle grade education ; sometimes, in the case of girls, instruction is given in various accomplishments, such as housekeeping, sewing, music, flower arrangement or tea ceremony ; sometimes attention is given to the turning out of skilled operatives by means of vocational training, scope being afforded for individual self-expression ; sometimes, by way of diversion for the workpeople, cinematograph, theatrical or dancing performances are given ; or, as recently with much success, meetings devoted to all kinds of outdoor athletic sports are held. By other means, such as facilities for a cheap supply of daily necessities, an improvement of the workers' material income is aimed at. Or again, a hospital or first aid depot will be provided, where the diseased or injured among the workmen and their families can receive proper treatment. Furthermore, wide-spread facilities are offered for mutual aid associations, through which it is sought to eliminate the sense of insecurity from the workers' lives.

3. Whilst it may be assumed that welfare schemes such as those just cited re-act favourably upon efficiency, costs of production, &c., it is extremely difficult to obtain reliable statistical figures clearly indicating that connection. It may be said, in factories where welfare schemes have made headway, that relations between capital and labour are as a rule harmonious and disputes of rare occurrence.

4. Courses in welfare work have been given by Prefectures or by the Conciliation Society and other private corporations. In every prefecture, Societies for informal meetings of factory personnel and Factory Hygiene Societies also either give courses or carry on the study and propagation of welfare work by the publication of magazines or printed matter. As an additional measure, it is the practice of the official Factory Inspectors when visiting factories, besides enforcing the regulations of the factory law, to give positive guidance as to various schemes connected with welfare promotion.

5. The opinion of workers' associations or trade unions would seem to be divided as to the welfare work. In some quarters it meets with opposition, and it has on occasion fallen under suspicion. Yet, it not infrequently happens that, in a dispute, demand is made for a welfare scheme.

6. As regards the motives behind the welfare promotion movement, such measures may be adopted as part of the mechanism of scientific management with the object of increasing efficiency, or else as a precaution against labour trouble. But to give them their due, it must be said that the consideration that weighs with a very large proportion of the masters in this country, is the application to their workpeople of the best principles of the family system, and the desire from purely humanitarian reasons to treat these labourers as though they were members of their own families.

[*Summary of Information supplied by H.M. Commercial Counsellor,  
Tokyo.*]

It has been stated by one observer with considerable industrial interests in this country that nearly all large undertakings have now adopted welfare schemes of one kind or another, and that the employees demand the adoption of such schemes. He mentioned in particular expenditure on such items as annual garden parties, sports meetings, and provision of tennis courts.

Another observer has stated further that the labour unions welcomed schemes of welfare, and in fact endeavoured to make them compulsory in all large factories, and he has instanced one case of a recent strike which was caused by the neglect of the management of a works to institute arrangements of this kind.

In addition to the Social Welfare Bureau of the Ministry of the Interior, a Social Welfare Section has been established in recent years in, at any rate, the principal prefectural offices.

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CHAPTER IV  
 —————  
 UNEMPLOYMENT.  
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NOTE:—As regards time lost by unemployment, see p. 165; and as regards the casual labour problem, p. 166.

## COURSE OF UNEMPLOYMENT, 1881-1925.

[Furnished by the Ministry of Labour.]

The accompanying Table (p. 219) sets out statistics as to the percentage unemployed among certain trade unions for which information is available. The Table shows (i) the aggregate membership year by year since 1881 of the trade unions included in the statistics, and (ii) the annual mean of the monthly percentages of members returned as unemployed for the years 1881-1925 (June).

The trade unions represented in these figures are those which make payments to their unemployed members, and consequently keep an accurate record of the persons entitled to benefit, and which supply regularly information to the Ministry of Labour, as to the numbers of their members unemployed. Many of them are also able to say how many members are still unemployed after having exhausted their title to benefit. Persons on strike or locked-out, sick, or superannuated, are excluded from the statistics.

As the membership of these trade unions includes only a comparatively small minority of the whole industrial population, the percentage of unemployment shown by the returns cannot safely be assumed to represent the actual percentage of unemployment in the industrial population as a whole. In the first place, the great bulk of the trade unions which insure their members against want of work are probably composed of members engaged in the group of trades where the liability to fluctuations in employment is relatively high. For example, the engineering and shipbuilding group, formed of fluctuating industries, are over-represented in the figures, while such comparatively stable industries as agriculture and railway service are scarcely represented at all. Moreover, unskilled and casual labour is insufficiently represented in the returns, which relate mainly to skilled workmen. Thus, for some reasons, the percentage returned tends to be greater, while for other reasons it tends to be less, than the real percentage unemployed throughout the country. There are also variations in the extent to which the figures for different individual industries affect the results at different periods. For example, in the earlier years (1881-1890) covered by the Table, the engineering and metal group of trade unions formed nearly three-fifths of the total membership represented, whereas in more recent years it has formed only about two-fifths of the total.\*

These statistics, however, provide the only record available as to the fluctuations in unemployment over a long series of years, and they cover a sufficiently representative sample of the industrial population to justify the conclusion that the general percentages

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\* See also pp. 244-5.

provide a valuable guide to the direction of the changes in unemployment, and a rough indication of the comparative state of employment at different periods, although they cannot be relied upon as an absolute measure of the total amount of unemployment in all industries at any particular date.

Similarly, these figures provide the only means of testing, over a long series of years, the seasonal fluctuations in unemployment. The following are the averages of the percentages returned for each individual month taken over the twenty-year period, 1894-1913 :—

Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
4·8	4·4	4·4	4·0	3·8	3·9	4·0	4·2	4·4	4·4	4·2	4·7

PERCENTAGE UNEMPLOYED IN TRADE UNIONS,  
1881-1925 (June).

[*Note.*—Based solely on Returns furnished direct to the Ministry of Labour by various Trade Unions which pay unemployed benefit to their members. The percentages for some of the earlier years are partly computed from expenditure on unemployment benefit.]

Year.	Membership at end of June of Unions reporting.	Annual Mean of Monthly Percentages returned as unemployed.
1881	140,000	3·5
1882	151,000	2·3
1883	160,000	2·6
1884	167,000	8·1
1885	169,000	9·3
1886	168,000	10·2
1887	164,000	7·6
1888	168,000	4·9
1889	188,000	2·1
1890	213,000	2·1
1891	229,000	3·5
1892	234,000	6·3
1893	329,000	7·5
1894	368,000	6·9
1895	391,000	5·8
1896	423,000	3·3
1897	458,000	3·3
1898	458,000	2·8
1899	494,000	2·0
1900	525,000	2·5

## UNEMPLOYMENT.

PERCENTAGE UNEMPLOYED IN TRADE UNIONS,  
1881-1925 (June)—*continued.*

Year.	Membership at end of June of Unions reporting.	Annual Mean of Monthly Percentages returned as unemployed.
1901 .. ..	531,000	3·3
1902 .. ..	538,000	4·0
1903 .. ..	550,000	4·7
1904 .. ..	567,000	6·0
1905 .. ..	569,000	5·0
1906 .. ..	586,000	3·6
1907 .. ..	661,000	3·7
1908 .. ..	689,000	7·8
1909 .. ..	698,000	7·7
1910 .. ..	703,000	4·7
1911 .. ..	759,000	3·0
1912 .. ..	834,000	3·2
1913 .. ..	922,000	2·1
1914 .. ..	993,000	3·3
1915 .. ..	922,000	1·1
1916 .. ..	939,000	0·4
1917 .. ..	950,000	0·7
1918 .. ..	1,117,000	0·8
1919 .. ..	1,334,000	2·4
1920 .. ..	1,603,000	2·4
1921 .. ..	1,235,000	14·8
1922 .. ..	1,360,000	15·2
1923 .. ..	1,145,000	11·3
1924 .. ..	1,084,000	8·1
1925 .. ..	978,000	9·9
		(January-June)

## EXTENT OF UNEMPLOYMENT, 1921-1925.

[*Furnished by the Ministry of Labour.*]*Material available.*

The memorandum immediately preceding gives such figures as are available for gauging the direction of the changes in unemployment over a long series of years. As is explained in that memorandum, the nature of the figures available renders possible nothing but a rough indication of the amount of unemployment. In November, 1920, however, the Unemployment Insurance Act came into effect and made possible the collection of comprehensive

information as to the volume of unemployment. Previous to that Act, statutory unemployment insurance had been applied only to a number of specified industries,\* representing 3¼ to 4 millions of insured persons. This number was increased to over 11 millions in Great Britain by the passing of the 1920 Act, which extended the contributory scheme to substantially all manual workers, and also to non-manual workers earning not more than £250 a year. The chief exceptions were those of outworkers, persons employed in agriculture and private domestic service, juveniles under 16 years of age, and certain classes of permanent employees, e.g. permanent Civil Servants; pensionable teachers, and (subject to a certificate from the Ministry of Labour) permanent employees of local authorities, railway companies and certain other public utility undertakings, members of the police forces and persons with rights under a statutory superannuation scheme.

The administration of the scheme was entrusted to the Employment Exchanges, a national system of which had originally been brought into existence by the Labour Exchanges Act, 1909, for the purpose of furnishing information as to employers requiring workpeople and workpeople seeking employment. The wide extension of unemployment insurance in 1920 naturally resulted in large numbers of unemployed workpeople being brought on to the registers of the exchanges who previously would not have registered; and, consequently, more comprehensive statistics of unemployment can be obtained than had ever been previously available. There are two main forms of these statistics, viz. (i) the number of persons registered at the exchanges as seeking employment, and (ii) the number and percentage of insured workpeople whose unemployment books are lodged at the exchanges.

#### *Numbers registered at Employment Exchanges.*

Weekly returns are made by all exchanges and branch offices, showing the numbers of persons registered as seeking employment on the first day of each week. These are the figures frequently referred to as the "live register" figures of unemployment. The number of persons thus recorded on the register includes persons (so far as registered) in non-insurable occupations, such as agriculture or domestic service. As, however, some unemployed persons, such as some of those in non-insurable occupations or some insured

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\* The scheme was applied by Part II of the National Insurance Act, 1911, to the building trades, construction of works, construction of vehicles, ironfounding, engineering, sawmilling (carried on in connection with any other insured trade), and shipbuilding. The scheme was extended in 1916 to all munition workers not already insured and, also, to the whole of certain trades, the chief of which were the metal, chemical, leather, rubber, and ammunition trades.

persons who have not valid claims to benefit, may not register at the exchanges, the numbers registered do not fully represent the total numbers unemployed.

It should be made clear that the figures include, in addition to workpeople recorded as wholly unemployed, workpeople suspended or temporarily "stood-off," and persons working systematic short-time and drawing benefit under the Unemployment Insurance Acts for intervals of unemployment, provided that they were unemployed on the dates to which the returns relate. The figures also include some persons in employment who have registered with a view to obtaining other work. This applies more especially to juveniles than to adults, but in neither case are the total numbers of any considerable magnitude at the present time.

Table A (p. 225) gives the figures for dates near the end of each month from January, 1921, to June, 1925. There are two points in connection with this table which should be borne in mind. Firstly, a revision of the basis of the figures in regard to persons working short-time was made in March, 1924. The figures in Table A for the earlier years have been re-worked on the new system, and consequently, while the figures in the table are comparable throughout the period covered, those given for dates prior to March, 1924, are not identical with those published at the time. Secondly, while no material change has since been made in the classes of workpeople who became insurable under the Unemployment Insurance Act of 1920, there have been a number of subsequent Acts and some administrative changes, the provisions of which have had some influence on the numbers registering at the exchanges and have, therefore, to some extent affected the validity of comparisons of the amount of unemployment at different dates based on these figures. The principal of these changes are described in the Appendix to this memorandum.

*Numbers and percentages unemployed among insured workpeople.*

Every person insured under the Unemployment Insurance Acts is given an unemployment book, and the number of persons insured in Great Britain and Northern Ireland is estimated annually from a count of these books which are exchanged for new books in the summer of each year. The results of this count is given in Table C (p. 226). When a claim to unemployment benefit is made, the unemployment book must be lodged at an employment exchange. It is, therefore, possible to obtain from a count of the lodged books a record of unemployment in insured trades; and by relating this to the estimated total of insured persons the percentage of unemployed among insured workpeople can be calculated. Table B (p. 225) gives the percentages for Great Britain for dates near the end of each month from January, 1921, to June, 1925.

There are again a few points which should be borne in mind in considering these figures. First, the figures do not represent the numbers of persons in receipt of unemployment benefit: they include:—

- (a) Insured persons, unemployed and in receipt of benefit ;
- (b) Insured persons not in receipt of benefit, but known to be unemployed by reason of their maintaining registration at an Employment Exchange or otherwise ;
- (c) Insured persons who are not in receipt of benefit and are not maintaining registration, but whose unemployment books remain lodged at Employment Exchanges. Provided there is no definite evidence, either of employment or that the persons concerned have died, gone abroad, &c., these are counted in the statistics for two months after the insured person's last attendance at an Exchange.

Secondly, "Unemployed" as used in these statistics does not necessarily mean that the person is definitely without a job. Persons who were not at work on the day of the count because they were suspended, "stood-off," "furloughed," or on short time, and whose unemployment books are lodged at Exchanges, are counted in the statistics as "unemployed."

Thirdly, insured persons who are disqualified for the receipt of benefit under the trade dispute disqualification\* are not included amongst the numbers unemployed, unless they are definitely maintaining registration for other work.

The effects of legislative and administrative changes as described in the Appendix to this memorandum have also a bearing upon these figures.

#### *Analysis by industries.*

On every insured person's unemployment book is recorded, *inter alia*, in which of one hundred industry-groups his last employer was engaged. Consequently, by relating the number of books lodged by unemployed persons, industry by industry, to the total of persons recorded by the annual count of books as being engaged in those industries, it is possible to obtain a percentage figure of unemployment in those industries at any given time. In June, 1923, the classification of insured workpeople was revised so as to bring it, so far as practicable, into conformity with the industrial grouping adopted in connection with the 1921 census of population. At the same time, the classification was put on a strictly industrial basis, all unemployment books being classified according to the industry of the employer, or, in the case of unemployed persons, of the last

\* See Appendix, p. 229.

employer. Consequently the statistics of unemployment industry by industry for June, 1923 and onwards, are not strictly comparable with those prior to that date, and the figures are, therefore, not taken back beyond that date in the two Tables C and D.

Table C (p. 226) shows for Great Britain and Northern Ireland the result of the count of books in July, 1923, and July, 1924, as regards each of the industries in the exporting group selected for special review by the Committee\*, as well as the total of insured persons.

Table D (p. 227) states, for the same period and in regard to the same industries, the percentages of unemployed as shown by this method. It will be seen that, among these industries, there have been and are at present wide variations in the amount of unemployment. In the shipbuilding industry, in the heavy iron and steel industries, in coal mining, in the woollen and worsted industry, and in marine engineering, the percentages at the end of June, 1925, were much above the average for all industries. On the other hand, in electrical engineering, in electric cable, lamp, &c., manufacture, in the construction and repair of motor-cars, cycles, railway carriages and wagons, and in the tailoring trades, the percentages were much below the general average.

Table 11, Chapter VI (p. 444) shows the percentages of insured persons unemployed in Great Britain and Northern Ireland for each of the one hundred industry-groups at the end of each quarter from June, 1923 to June, 1925 (*a*) for males; (*b*) for females; and (*c*) for the total of insured workpeople. Here again wide variations in the amount of unemployment as between trade and trade are revealed.

#### *Geographical basis.*

It will be noted that Tables A and B relate to Great Britain, while Tables C, D and 11 relate to Great Britain and Northern Ireland, as the statistics included in the first two go back to 1921, while those included in the other three (from July, 1923) are collected on the basis of Great Britain and Northern Ireland and published in the "Labour Gazette" in that form. While the effect of including Northern Ireland may, of course, be marked at times in regard to certain individual industries, the effect upon the figures in regard to all insured persons is quite small. In order to observe this, a comparison should be made between the percentages for all insured industries in Great Britain and Northern Ireland given at the foot of Table D with the figures for Great Britain for the comparable months given in Table B.

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\* See p. 54.



TABLE A.

*Numbers recorded on the Registers of Employment Exchanges in Great Britain.*

Date.*	1921.	1922.	1923.	1924.	1925.
January ..	1,276,577	1,936,081	1,463,612	1,320,518†	1,240,922
February ..	1,465,316	1,859,137	1,353,173	1,154,504	1,236,065
March ..	1,697,938	1,736,457	1,266,997	1,063,519	1,201,315
April ..	2,246,082†	1,712,051	1,263,665	1,047,780	1,187,068
May ..	2,558,190†	1,565,429	1,237,716	1,015,626	1,186,522
June ..	2,438,125†	1,436,100	1,223,152	1,013,782	1,299,667
July ..	1,905,196	1,389,257	1,221,554	1,048,261	—
August ..	1,656,452	1,359,376	1,268,828	1,149,078	—
September ..	1,470,388	1,342,503	1,275,770	1,180,290	—
October ..	1,639,545	1,348,960	1,293,317	1,203,229	—
November ..	1,849,069	1,401,093	1,261,838	1,190,592	—
December ..	1,885,478	1,381,612	1,285,623	1,169,227	—

TABLE B.

*Percentages Unemployed among Insured Workpeople in Great Britain.*

Date.*	1921.	1922.	1923.	1924.	1925.
January .. ..	10·9	17·5	13·1	11·8†	11·1
February .. ..	12·8	16·9	12·2	10·5	11·1
March .. ..	15·0	15·8	11·5	9·7	10·8
April .. ..	19·8†	15·6	11·3	9·5	10·6
May .. ..	23·0†	14·4	11·1	9·2	10·6
June .. ..	21·9†	13·5	11·2	9·2	11·6
July .. ..	17·4	12·9	11·4	9·6	—
August .. ..	15·1	12·6	11·7	10·3	—
September .. ..	13·9	12·5	11·6	10·5	—
October .. ..	14·3	12·4	11·6	10·8	—
November .. ..	16·9	12·8	11·4	10·7	—
December .. ..	17·7	12·6	10·5	10·6	—

\* The figures generally relate to the last Monday in the month, but in some cases to a week earlier.

† General coal-mining dispute in progress.

‡ Figures inflated by effects of strike of railway enginemem.

*Note.*—In considering these tables, particularly as regards 1924, the effects of the legislative and administrative changes described in the Appendix to this Memorandum should be borne in mind.

TABLE C.

*Estimated Numbers of Persons Insured under the Unemployment Insurance Acts at July, 1923 and July, 1924, in the exporting group of industries. (Great Britain and Northern Ireland.)*

Industry.	July, 1923.			July, 1924.		
	Males.	Females.	Total.	Males.	Females.	Total.
<b>Iron and Steel :—</b>						
Pig Iron Manufacture (blast furnaces) .. .. .	29,310	240	29,550	29,880	310	30,190
Steel Smelting, Iron Puddling, Iron and Steel Rolling and Forging	210,150	4,480	214,630	203,150	4,120	207,270
<b>Engineering, Shipbuilding and Electrical Industries :—</b>						
General Engineering and Founding .. .. .	635,260	39,660	674,920	588,500	38,880	627,380
Electrical Engineering .. .. .	50,570	11,710	62,280	58,080	13,450	71,530
Marine Engineering, &c. .. .. .	65,760	1,110	66,870	64,860	1,250	66,110
Constructional Engineering .. .. .	22,940	840	23,780	23,120	890	24,010
Construction and Repair of Motor Vehicles, Cycles, and Aircraft	174,590	19,830	194,420	184,500	18,840	203,340
Railway Carriage, Wagon, &c., Building .. .. .	50,560	1,280	51,840	51,000	1,180	52,180
Shipbuilding and Ship Repairing .. .. .	268,520	4,010	272,530	251,610	3,480	255,090
Electrical Cable, Wire, Lamp, &c., Manufacture	48,480	24,360	72,840	48,700	26,240	74,940
Coal-mining .. .. .	1,258,650	8,200	1,266,850	1,252,430	7,920	1,260,350
Cotton Industry .. .. .	211,010	365,280	576,290	201,450	360,940	562,390
Woollen and Worsted Industry .. .. .	119,630	153,700	273,330	110,650	150,240	260,890
Tailoring (Wholesale and Retail) .. .. .	65,910	120,300	186,210	66,200	123,250	189,450
Boot, Shoe, &c., Manufacture and Repairing .. .. .	93,620	50,230	143,850	92,220	50,270	142,490
Chemicals Manufacture .. .. .	80,430	24,940	105,370	76,010	21,630	97,640
<b>All Insured Industries (including non-export trades) ..</b>	<b>8,492,900</b>	<b>2,992,900</b>	<b>11,485,800</b>	<b>8,585,800</b>	<b>3,078,200</b>	<b>11,664,000</b>

TABLE D.

*Percentages Unemployed at the End of Each Quarter among Insured Workpeople in the exporting group of industries. (Great Britain and Northern Ireland.)*

Industry.	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.
Iron and Steel :—									
Pig Iron Manufacture (blast furnaces)	9.4	16.2	11.4	11.8	13.5	15.7	18.0	18.1	19.4
Steel Smelting, Iron Puddling, Iron and Steel Rolling and Forging	20.6	21.7	17.1	16.3	18.7	25.7	27.6	23.9	24.7
Engineering, Shipbuilding and Electrical Industries :—									
General Engineering and Founding ..	20.9	20.2	18.3	16.1	14.0	15.0	13.7	12.9	12.3
Electrical Engineering .. .. .	6.4	6.8	5.6	5.4	5.4	5.2	5.0	5.5	5.6
Marine Engineering, &c. .. .. .	21.0	25.0	22.2	16.3	14.9	16.9	17.1	18.5	19.4
Constructional Engineering .. ..	11.8	11.0	11.8	13.0	12.0	13.6	13.8	13.9	12.5
Construction and Repair of Motor Vehicles, Cycles and Aircraft	9.4	12.2	10.0	7.6	7.0	10.7	7.5	6.6	6.0
Railway Carriage, Wagon, &c., Building	4.3	4.7	5.1	4.0	4.8	7.0	7.8	6.7	6.7
Shipbuilding and Ship Repairing ..	43.7	43.2	34.2	28.3	27.1	30.5	31.9	33.2	32.8
Electric Cable, Wire, Lamp, &c., Manufacture	9.8	9.3	7.7	8.0	7.2	7.1	6.3	8.1	7.7
Coal-mining .. .. .	2.5	3.1	2.4	2.1	4.7	8.2	7.9	11.8	25.0
Cotton Industry .. .. .	21.2	20.1	12.0	15.4	15.2	14.3	7.0	7.2	8.7
Woolen and Worsted Industry .. ..	6.8	11.0	9.9	5.0	5.8	7.7	9.2	14.0	19.7
Tailoring (Wholesale and Retail) ..	5.6	11.1	12.4	7.8	4.6	11.6	12.6	8.7	5.4
Boot, Shoe, Slipper and Clog Making and Repairing	8.9	10.3	9.8	9.5	7.7	8.6	11.8	9.2	10.2
Chemicals Manufacture .. .. .	11.4	11.1	10.2	8.6	8.9	9.2	9.2	8.4	8.6
All Insured Industries (including non-export trades)	11.3	11.7	10.6	9.8	9.3	10.6	10.7	11.1	11.9

## APPENDIX.

## LEGISLATION AND UNEMPLOYMENT STATISTICS (1921-1925).

The Unemployment Insurance Act, 1920 (November, 1920) limited the amount of unemployment benefit payable in any individual case to one week's benefit for every six contributions paid, subject to a maximum of 15 weeks' benefit in any Insurance Year (July to June inclusive), and subject also to the provision that during the first year an insured person might receive eight weeks' benefit as soon as four contributions had been paid. It may be taken as a common though not universal rule that unemployed persons tend to lose touch with Employment Exchanges and therefore to drop out of the statistics of unemployment when they are no longer entitled to receive unemployment benefit. The Unemployment Insurance Act of 1920 came into operation at a time when the trade depression began to affect employment and special provision had to be made for the large numbers of persons who could not possibly qualify for benefit by fulfilling the conditions as to payment of contributions. The subsequent Unemployment Insurance Acts were framed largely for the purpose of meeting these cases, and to the extent that they provided for the increased payment of benefit it may be said that they also ensured greater completeness in the statistics of unemployment. The following brief summary of these enactments shows the extent of this provision.

The Unemployment Insurance (Temporary Provisions Amendment) Act, 1920 (December, 1920) provided for the allowance of eight weeks' benefit to any person who had been engaged in insurable employment in each of not less than ten weeks since 31st December, 1919, or four weeks since 4th July, 1920, thus waiving in such cases the payment of four contributions.

The Unemployment Insurance Act, 1921 (March, 1921) and the Unemployment Insurance (No. 2) Act, 1921 (July, 1921) commenced the system of "uncovenanted" benefit, that is, benefit allowed, subject to the fulfilment of certain conditions irrespective of the number of contributions paid, as a discretionary grant, as distinguished from "covenanted" benefit to which an insured person had a legal claim as the result of the payment of contributions. They set up two "special periods" within which benefit could be drawn. During the first special period from 3rd March, 1921 to 2nd November, 1921 (35 weeks), the maximum benefit payable was 16 weeks covenanted or 22 weeks uncovenanted (or 22 weeks covenanted and uncovenanted together). During the second special period from 3rd November, 1921 to 2nd July, 1922 (34½ weeks), the maximum benefit payable was also 16 weeks covenanted or 22 weeks uncovenanted (or 22 weeks covenanted and uncovenanted together). In both periods the grant of six weeks' extension over the allowance of 16 weeks was subject to the discretion of the Minister. As an offset to this increased allowance of benefit the No. 2 Act of 1921 increased, as from 30th June, 1921, the waiting period of three days of unemployment provided for in the Act of 1920, to six days.

The Unemployment Insurance Act 1922 (April, 1922) and the Unemployment Insurance (No. 2) Act, 1922 (June, 1922) became necessary through the exhaustion of benefit in the second special period, in a large number of cases, by April, 1922—three months before the end of that period. The second special period was, therefore, terminated on 5th April, 1922, and two further special periods were instituted. During the third special period from 6th April, 1922 to 1st November, 1922 (30 weeks), the maximum benefit payable was 15 weeks uncovenanted, subject to a "gap" of five weeks without benefit at the end of each spell of five weeks on benefit, excepting covenanted benefit. Under the No. 2 Act of 1922 the gap was

reduced to one week, and the Minister was given power to authorise un-covenanted benefit during the third special period up to a maximum of 22 weeks. During the fourth special period from 2nd November, 1922 to 1st July, 1923 (34½ weeks), the maximum benefit payable was 18 weeks covenanted benefit plus 12 weeks uncovenanted, subject to an over-all maximum of 22 weeks. Up to 22 weeks uncovenanted benefit might be allowed in certain special cases.

The Unemployment Insurance Act, 1923 (March, 1923) extended the fourth special period to 17th October, 1923. The maximum benefit payable was increased to 44 weeks subject to a "gap" of two weeks without benefit when 22 weeks' benefit from November, 1922, had been drawn. "Benefit Years" were instituted under this Act, during the first of which (18th October, 1923 to 15th October, 1924) 26 weeks' benefit were payable on either the covenanted or uncovenanted basis, subject to a gap of three weeks after the payment of 12 weeks uncovenanted benefit.

The Unemployment Insurance Act, 1924 (February, 1924) abolished from 21st February, 1924, the three weeks' gap referred to above.

The Unemployment Insurance (No. 3) Act, 1924 (April, 1924) substituted a maximum of 41 weeks benefit for the 26 weeks in the first benefit year referred to above, the additional 15 weeks benefit being uncovenanted.

The Unemployment Insurance (No. 2) Act, 1924 (August, 1924) reduced the waiting period of six days to three days\* and amended the rule for determining the continuity of intermittent unemployment in such a way as to reduce the number of cases in which a fresh waiting period would be required. "Extended" benefit (formerly known as "uncovenanted" benefit) was given as a legal right subject to statutory conditions instead of as a discretionary grant,† and the limits on the duration of such benefit were removed. The provisions of the Act of 1920 regarding the disqualification for benefit of persons who had lost employment through a trade dispute were amended in such a way as to allow the payment of benefit to certain classes who had formerly been prevented from receiving it. This Act also provided that benefit received in respect of the period between 7th November, 1920, and 17th October, 1923, should not be treated as exhausting contributions. Somewhat similar provision had been made for the earlier part of this period in the Acts of 1921 and 1922.

#### *The Influence on the Figures of Administrative Changes.*

In February, 1924, it was decided that certain special restrictions on the grant of uncovenanted benefit, which had been imposed by administrative order under the discretionary power vested in the Minister of Labour by the Unemployment Insurance Act, 1922, should be removed.‡

In consequence of this decision uncovenanted benefit was not, after that date, withheld from the following classes of persons provided that these persons fulfilled the other statutory conditions for the receipt of uncovenanted (or extended) benefit :-

- (1) Single persons residing with parents or relatives to whom they could reasonably look for support during unemployment.
- (2) Married women living with their husbands who are in employment and whose incomes are sufficient to justify the withholding of uncovenanted benefit from the wife.

\* This was again increased to six days as from 1st October, 1925, by the Unemployment Insurance Act of 1925 (August, 1925).

† The grant of extended benefit was again placed under the discretion of the Minister of Labour by the Unemployment Insurance Act, 1925.

‡ These were reimposed in certain cases in August, 1925.

(3) Married men living with their wives where the circumstances are as in (2).

(4) Persons working short time whose incomings are sufficient to justify the withholding of uncovenanted benefit.

(5) Certain classes of aliens.

It was estimated that, as the result of the changes under the (No. 2) Act of 1924, about 70,000 persons, who would not otherwise have registered, were added to the numbers recorded as unemployed.

#### PARTICULARS OF UNEMPLOYED INDIVIDUALS.

[Furnished by the Ministry of Labour.]

An enquiry was made by the Ministry of Labour in November, 1924, into the personal circumstances and industrial history of nearly 11,000 claimants to unemployment benefit (i.e. about 1 per cent. of the total number), selected in such a way as to constitute as nearly as possible a representative sample of the whole body of claimants.

The results, which were published in full in June, 1925,\* disclosed some interesting features of the unemployment and insurance situation. The present memorandum is based on the prefatory note affixed to the Report and gives an account and statistical details of those results which throw light on the unemployment situation. The results regarding the insurance situation are not referred to here, as the object of this memorandum is to draw attention to the factors which may cause an individual to fall out of work and find fresh employment difficult to obtain.

Except for some additional information and with alterations of a minor character, the enquiry was conducted on the same lines as one, the results of which were published in March, 1924.†

Since the enquiry relates strictly to *claimants to unemployment benefit*, and since exhaustion of benefit, disqualification, &c., vary in their incidence according to age and personal circumstances, caution should be observed in drawing from the results of the analysis conclusions as to the composition of "the unemployed." It should also be noted that because females in industry are in general much younger than males in industry, the disqualifications affecting young persons fall with greater frequency upon females, and there are likely to be proportionately more unemployed insured females who do not figure among claimants to benefit than is the case with males.

\* See Report on an Investigation into the Personal Circumstances and Industrial History of 10,903 Claimants to Unemployment Benefit, 24th to 29th November, 1924. H.M. Stationery Office. Price 4s. net.

† See Report on an Investigation into the Personal Circumstances and Industrial History of 10,000 Claimants to Unemployment Benefit, 5th to 10th November, 1923. H.M. Stationery Office. Price 3s. net.

The Tables A, B, C and D referred to in the following remarks will be found at the end of this memorandum (pp. 238-241), and the Table 12 in Chapter VI (pp. 462-9).

*Degree of Employability. (See Table A.)*

The Employment Exchange officers who personally interviewed the eleven thousand claimants were asked to place each person in one of several specified categories of "employability." The four most important of these categories were lettered and defined as follows :—

A.—Persons who, in normal times, would usually be in steady employment.

B.—Persons who, though not usually in steady employment would, in normal times, obtain a fair amount of employment.

C.—Persons who would not in normal times obtain a fair amount of employment, but who were not considered to be "verging on the unemployable."

D.—Persons who were considered to be "verging on the unemployable."

The two other categories adopted were :—

E.—Persons who left school during or since the war, and in consequence of abnormal conditions have been unable to get a footing in regular industry.

F.—Persons who cannot be placed in any of the above categories.

The analysis of the schedules shows that, in the opinion of interviewing officers, 62·7 per cent. of all the males interviewed, and 77·2 per cent. of all the females, were persons who in normal times would usually be in steady employment ; while only 3·6 per cent. of the males and 1·4 per cent. of the females were regarded as "verging on the unemployable." Categories A and B taken together (persons who in normal times would be either steadily or at least fairly well employed), account for 86·1 per cent. of the males and 90·2 per cent. of the females. It will not be overlooked, in comparing the proportions for males and females, that the latter are in general much younger than male claimants.

The analysis shows that the number of those men and women who were considered to be "verging on the unemployable" is in great part made up of elderly or aged persons. Over two-thirds of the men placed in this category, and nearly one-half of the women, were aged 60 years and over. It was also found that a heavy proportion of those classed as "verging on the unemployable" suffered from poor physique, poor health, or some manifest physical defect.

It should be observed that the men and women placed in Category D are not "unemployable" but "verging on the unemployable." If they were unemployable they would be precluded by the provisions of the Act from receiving benefit. That they are not "unemployable" in the strict sense of the word is borne out by an examination of their employment records, which serves to show that they have had, as a class, a fair amount of recent employment, though less employment, either absolutely or in relation to benefit drawn, than any of the other classes.

*Physique, Health and Physical Defects. (See Table 12.)*

The interviewing officers recorded in each case their impressions of the claimants under the above headings. The results of their classification may be conveniently summarised as follows:—

	<i>Physique.</i>			<i>Apparent Health.</i>			<i>Physical Defects.</i>
	<i>Good.</i>	<i>Fair.</i>	<i>Poor.</i>	<i>Good.</i>	<i>Fair.</i>	<i>Poor.</i>	
Males.. ..	67·8	28·1	4·1	76·1	20·3	3·6	19·0
Females ..	73·5	24·2	2·3	81·2	16·7	2·1	12·1

The analysis shows that an insignificant proportion of the best class of workpeople (those placed in Category A) were of poor physique or poor health. On the other hand, those classed as "verging on the unemployable" were in great part suffering from either poor or only fair health, and nearly one-third of the males and one-quarter of the females in this class were of poor physique.

Similarly the analysis shows that the proportion of persons with no physical defects is highest in the case of Category A and lowest in the case of Category D. In the case of men the persons placed in Category C included a large proportion of men who were lame, maimed and aged, and who suffered from miscellaneous physical defects.

*Basis of Assessment of "Employability."*

From what appears above, it may be inferred that interviewing officers, in forming their opinions as to the category of employability into which claimants should be placed, were influenced very largely by apparent or disclosed physical condition. It is possible that some of those placed in the category "verging on unemployable" had qualities of character or skill which would make them, despite their physical defects, desirable workpeople in special employment; it may be on the other hand that some of those placed in the highest category had moral or mental failings, which would lead to their early discharge from any employment.

*Age of Claimants. (See Table B.)*

Less than half the male claimants and over three-quarters of the female claimants were under 35. The largest number of men and women of any one age are found in the age group 20 to 24. The



heaviest proportion of men figuring among claimants to benefit, relative to the number of "occupied" males in the population, is in the age group 20 to 24 and in the age group 55 and over. In the case of women the heaviest proportion is found in the age group 18 to 24. Youths of from 16 to 19 and girls of 16 and 17 are more lightly represented among the claimants than among industrial workers generally.

*Age of Leaving School, Types of School Attended, and Age of Starting Work. (See Table 12.)*

All claimants who were under the age of 30 were interrogated as to the age at which they left school, the type of school they had last attended, and the age at which they started work. The analysis shows that 93.9 per cent. of the boys and young men and 93.1 per cent. of the girls and young women left school at or under the age of 14, that 3.8 per cent. and 4.2 per cent. respectively left school at the age of 15, and that the rest left school at various ages up to 18. It further shows that 90.4 per cent. of the boys and young men and 69.4 per cent. of the girls and young women started work at or under the age of 14, while 6.0 per cent. and 14.8 per cent. respectively, started work at 15. It will be observed that for males the numbers and proportions of those who started work at or under 14 years of age are not very different from the numbers and proportions of those who left school at those ages. The obtaining of employment lags a little behind the leaving of school, but the boys and young men interviewed may be said to have entered employment of some kind almost immediately they left school. With girls and young women the numbers differ considerably, and the inference is that girls who left school at 14 or under did not in general enter employment until some time afterwards.

The enquiry showed that 4.9 per cent. of the boys and young men under 30, and 6.4 per cent. of the girls and young women under 30, had attended secondary schools; the rest had attended only elementary schools.

*Apprenticeship and Training. (See Table 12.)*

Information was sought of all claimants interviewed as to whether they had been apprenticed or trained. The analysis of these particulars shows that, of the males interviewed, 23.7 per cent. were stated to have been apprenticed, 24.6 per cent. trained, and 51.7 per cent. neither apprenticed nor trained; while of the females only 11.1 per cent. claimed apprenticeship, but 53.3 per cent. claimed to have had some training, and 35.6 per cent. were stated to have been neither apprenticed nor trained. It may be remarked that "training" in the case of a woman often means something more meagre or casual than in the case of a man.

*Nationality.*

There were found in all 24 men and 6 women who were not British subjects, these forming 0·27 per cent. and 0·29 per cent. respectively of the total numbers of males and females interviewed.

*Type of Normal Employment. (See Table 12.)*

It was found that, of the male claimants, 11·6 per cent. were casual workers, 75·5 per cent. were definitely out of a situation, and 12·9 per cent. were suspended or "stood-off." The corresponding percentages for females were respectively 1·2, 69·0 and 29·8. In regard to the high proportion of women claimants who were suspended or "stood-off," it is probable that the working of systematic short-time in the cotton industry at the date of the enquiry would have considerable influence on the figures, as the number of female claimants connected with this industry who were interviewed represented 13·1 per cent. of the total number of female claimants who were subject to the analysis. There were more males of the casual type in ages over 34 than in the younger age groups, and a higher proportion of men from 18 to 34 years of age who are described as non-casual but definitely out of a situation. Only 5 per cent. of the best type of male claimant (Category A) are described as casual workers, and in this category is found also the highest proportion of men suspended or "stood-off." For females, out of the 99·6 per cent. who are described as being non-casual in the highest category of employability, 34·4 per cent. were suspended or "stood-off."

*Number of Dependants. (See Table 12.)*

Of the male claimants interviewed, 55·3 per cent. were stated to have dependants, either adults or children or both, the average number of their dependants being 2·6; and 47·6 per cent. had dependants in respect of whom they were drawing Dependants' Benefit under the Unemployment Insurance Act, the average number of such dependants being 2·4 (viz. : 0·9 adults and 1·5 children).

Of the males who were drawing Dependants' Benefit, 35·3 per cent. were receiving benefit in respect of wife or housekeeper only, 6·5 per cent. in respect of child or children only, and 58·2 per cent. in respect of an adult together with one or more children. Of the men with dependent children, 34·7 per cent. were drawing benefit in respect of one child only, 27·9 per cent. in respect of two children, 17·1 per cent. in respect of three children, and 20·3 per cent. in respect of four or more children. Of the female claimants interviewed, 89·4 per cent. were stated to have no one dependent on them, and 10·6 per cent. to have dependants, adults or children or both, the average number of their dependants being 1·5. Only 2·1 per cent

were drawing benefit in respect of dependants. Of the women receiving Dependants' Benefit in respect of children, 72·5 per cent. were drawing benefit in respect of one child, 20·0 per cent. in respect of two children, and 7·5 per cent. in respect of three or more children.

*Poor Law Relief. (See Table 12.)*

Information was obtained in every case from the Poor Law Authorities as to whether the claimant was in receipt of Poor Law Relief, and, if so, at what weekly rate. The analysis of this information shows that 4·7 per cent. of the males, and only 0·3 per cent. of the females, were in receipt of Poor Relief. The age groups showing the heaviest proportion of males in receipt of Poor Relief are 30 to 34 (9·8 per cent.), 35 to 44 (9·1 per cent.) and 25 to 29 (6·2 per cent.). In the case of females the age group showing the heaviest proportion is that of women of 60 years of age and over.

An examination of the amounts received in Unemployment Insurance Benefit and Poor Relief shows that the cases which most frequently occur among males in receipt of Poor Relief over and above their unemployment benefit are of men drawing from 23s. to 31s. a week in benefit (which means men with a dependent wife, or with wife and from one to four dependent children), and in receipt also of Poor Relief ranging from 2s. 6d. to 10s. per week.

Six of the seven women who were in receipt of Poor Relief were drawing unemployment benefit in respect of themselves only and, in addition, weekly sums ranging from 5s. to 15s. from the Poor Law authorities.

*Nature of Benefit Authorised or Reason for Non-Authorisation. (See Table 12.)*

In the case of each claimant interviewed, the nature of the benefit authorised was ascertained or, in the case of a claim on which benefit was not authorised, the reason for such non-authorisation. In the case of males 95·1 per cent. of the claims were authorised and 4·9 per cent. not authorised. Of the authorised claims slightly under one-half were authorised for standard benefit and slightly over one-half for extended benefit. For females, approximately two-thirds were authorised for standard benefit and one-third for extended benefit. Of the 4·9 per cent. of claims in respect of which benefit was not authorised for men, 3·7 was due to the fact that the authorisation procedure had not been completed (i.e., the "waiting period" had not been satisfied). For females, 4·9 out of the 6·1 per cent. not authorised was due to this reason. Examining the results in the light of the ages of the claimants, it is found that men from 18 to 24 years of age had the highest proportion of authorisations for standard benefit, and boys of 16 and 17 and men of 60 and over had the lowest. For females the highest proportions of standard benefit were found in the ages 18 to 34.

Analysing the results by category of employability, it is found that the largest proportion of men with standard benefit authorised were in the highest category, and the highest proportion with authorisations for extended benefit was in respect of men in the "verging on the unemployable" group. These remarks also apply to the female claimants. The regularity in the decline in the proportion of standard benefit claims for both males and females through the four descending grades of employability is noteworthy.

*Contributions and Benefit.* (See Table 12.)

Particulars of the contributions paid and benefit drawn by each claimant were obtained from Insurance Records. The average number of weekly contributions paid by the males interviewed was 193 and the average number of days' benefit drawn by them was 381. For females the figures are 139 and 177. The number of days' benefit drawn per contribution paid was, therefore, for males 1·98 and for females 1·27. Among males the least benefit relative to contributions had been drawn by boys under 18, and the most by men of 20 to 29 years of age. Among females the least benefit relative to contributions paid had been drawn by girls and young women from 18 to 29 years of age, and the most by women over 60.

Except for a slight deviation in the case of females, there is a progressive increase in the benefit drawn relative to contributions paid as the degree of employability falls. For every contribution paid, the males assigned to Category A had drawn 1·68 days' benefit; Category B, 2·49 days; Category C, 2·87 days; and Category D 3·13 days. For females the corresponding figures are: Category A, 1·20 days' benefit; Category B, 1·61 days; Category C, 1·54 days, and Category D, 2·39 days.

*Contributions in previous 125 weeks.*

An attempt has been made to ascertain from the returns how long claimants had been unemployed during the 125 weeks preceding the date (24th to 29th November, 1924) on which the enquiry was made. The enquiry has proceeded along the lines of ascertaining how many contributions those claimants who were in insurance before July 3rd, 1923, had paid since that date. It should be understood that the payment of a contribution in respect of a particular week does not necessarily mean that the claimant was in employment during the whole of that week: a stamp will in some cases represent only one day's or half-day's employment in the week. The analysis cannot, therefore, be read as meaning that the claimants had during these 125 weeks as many full week's employment as they had numbers of contributions in their books, but it is probable that, taking the claimants as a whole, such a reading would not give a very material overstatement.

The analysis shows that 4.7 per cent. of the claimants who had entered insurance prior to July 3rd, 1922, had had no insured employment whatever since that date. Considered by categories of employability, only 3.0 per cent. of those placed in Category A and 4.6 per cent. of those in Category B had had no insured employment during the period, while 12.7 per cent. of those in Category C and 20.1 per cent. of those in Category D were in that position.

If the period of 125 weeks be divided roughly into four portions, the analysis indicates that, over the whole period, 23.3 per cent. of these males had done some insured work in from 0 to 29 of the 125 weeks, 22.7 per cent. had done some insured work in from 30 to 59 of the 125 weeks, 23.5 per cent. had done some insured work in from 60 to 89 of the 125 weeks, and 30.5 per cent. had done some insured work in from 90 to 125 of the weeks.

Considered by age groups, the analysis shows that the proportion of youths under 20 who had had little employment in the period is relatively small, while the proportion of men of 60 and over who had had no insured employment during the period is more than twice as great as in the case of persons in the other age groups.

*Comparison of Ex-Service and Non-Ex-Service Men. (See Table C).*

An analysis has been made of all the claims of men between the age of 20 and 55, with a view to distinguishing ex-Service from non-ex-Service men as regards age distribution and category of employability. It was found that those claimants who had served in the war were only slightly different in degree of employability from those who had not served.\* In making a comparison between the industrial fortunes of the two classes, it was found that the non-ex-Service men had had a somewhat better employment history in the 125 weeks which were analysed than the ex-Service men, but the difference is not substantial, and the significant feature, however considered, is the similarity in the amount of work which the two classes had had over the period.

*Disabled Ex-Service Men. (See Table D).*

Of the 3,261 ex-members of H.M. Forces who were included in the analysis, over 18 per cent. (595) were in receipt of a disability pension. Disabled men on the registers of Employment Exchanges are normally divided into three categories ("a," "b" and "c"), indicating occupational disability. A description of each category is given in a footnote on p. 241. Of the 595 disabled men, 50.4 per cent. were in Category "a," 45.3 per cent. in Category "b," and 4.3 per cent. in Category "c."

\* As regards physical defects, it was found that amputation and lameness occurred principally among men who had been of military service age at the time of the war.



TABLE A.—*continued.*

*Proportion of Persons in each Age Group who were regarded as falling within the several Categories of Employability.*

*Males.*

Ages of Male Claimants.	Number of Males in the undermentioned Categories of Employability.						Total Males in All Categories.
	A	B	C	D	E	F	
16 and 17 ..	% 68.2	% 10.8	% 3.0	% 0.6	% 16.8	% 0.6	100.0
18 and 19 ..	60.6	17.6	3.0	—	18.3	0.5	100.0
20 to 24 ..	69.6	17.2	2.2	0.2	10.1	0.7	100.0
25 to 29 ..	71.9	22.3	3.1	0.5	0.6	1.6	100.0
30 to 34 ..	73.5	20.5	3.8	0.7	—	1.5	100.0
35 to 44 ..	68.4	24.2	4.1	1.4	—	1.9	100.0
45 to 54 ..	64.5	25.8	5.9	2.2	—	1.6	100.0
55 to 59 ..	57.0	30.8	7.2	4.1	—	0.9	100.0
60 and over ..	32.5	29.7	17.6	18.2	—	2.0	100.0
Total Males of All Ages	62.7	23.4	6.0	3.6	2.9	1.4	100.0

*Females.*

Age of Female Claimants.	Number of Females in the undermentioned Categories of Employability.						Total Females in All Categories.
	A	B	C	D	E	F	
16 and 17 ..	% 76.0	% 7.3	% 3.1	% —	% 13.6	% —	100.0
18 and 19 ..	81.9	8.7	0.7	0.4	6.4	1.9	100.0
20 to 24 ..	83.5	8.8	3.5	0.2	1.6	2.4	100.0
25 to 29 ..	76.4	12.6	3.5	1.1	—	6.4	100.0
30 to 34 ..	80.7	14.0	2.9	0.5	—	1.9	100.0
35 to 44 ..	75.5	17.3	2.8	0.8	—	3.6	100.0
45 to 54 ..	61.5	26.7	4.4	3.7	—	3.7	100.0
55 to 59 ..	59.4	21.9	12.5	6.2	—	—	100.0
60 and over ..	36.2	25.5	8.5	25.5	—	4.3	100.0
Total Females of All Ages	77.2	13.0	3.3	1.4	1.9	3.2	100.0

TABLE B.

*Age of Claimants.*

*Comparison of Age Distribution of Claimants with Age Distribution of Occupied Persons in Great Britain as ascertained at the 1921 Census.*

Age Groups.	Males.			Females.		
	Nov. 1923.	Nov. 1924.	Census 1921.	Nov. 1923.	Nov. 1924.	Census 1921.
	%	%	%	%	%	%
16 and 17 (2 years) ..	1.9	1.9	5.5	6.0	4.7	10.8
18 and 19 (2 years) ..	4.7	4.9	5.6	16.0	12.9	11.5
20 to 24 (5 years) ..	16.5	15.6	12.3	30.3	30.3	22.7
25 to 29 (5 years) ..	12.0	12.4	11.3	17.1	18.2	13.4
30 to 34 (5 years) ..	10.3	9.2	10.8	10.1	10.1	8.9
35 to 44 (10 years) ..	17.1	17.4	20.9	10.8	12.1	13.7
45 to 54 (10 years) ..	17.8	17.3	17.7	6.0	7.8	10.0
55 and over (indefinite)	19.7	21.3	15.9	3.7	3.9	9.0
Total All Ages ..	100.0	100.0	100.0	100.0	100.0	100.0

TABLE C.

*Comparison of Ex-Service and Non-Ex-Service Men.*

*Percentage Comparison between the Categories of Employability of Ex-Service Men and Civilians between the Ages of 20 and 55.*

*Ex-Service.*

Age Groups.	Category of Employability.						Total All Categories.
	A	B	C	D	E	F	
	%	%	%	%	%	%	%
20 to 24 .. ..	68.8	24.2	1.1	—	4.3	1.6	100.0
25 to 29 .. ..	70.2	23.7	3.0	0.5	0.7	1.9	100.0
30 to 34 .. ..	71.3	21.8	4.1	0.9	—	1.9	100.0
35 to 44 .. ..	63.1	27.4	5.3	1.3	—	2.9	100.0
45 to 54 .. ..	57.1	30.2	7.9	2.4	—	2.4	100.0
Total Ex-Service	66.0	25.6	4.6	1.1	0.4	2.3	100.0



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TABLE C.—*continued.**Non-Ex-Service.*

Age Groups.	Category of Employability.						Total All Categories.
	A	B	C	D	E	F	
	%	%	%	%	%	%	%
20 to 24 .. ..	69.6	16.1	2.4	0.3	11.0	0.6	100.0
25 to 29 .. ..	78.7	16.1	3.7	0.5	0.5	0.5	100.0
30 to 34 .. ..	79.1	17.0	3.1	0.4	—	0.4	100.0
35 to 44 .. ..	76.4	19.2	2.4	1.5	—	0.5	100.0
45 to 54 .. ..	68.6	23.4	4.9	2.0	—	1.1	100.0
Total Civilians	71.9	19.0	3.3	1.0	4.1	0.7	100.0

TABLE D.

*Disabled Ex-Service Men.*

Age Groups.	Total Ex-Service Men.	Total Disabled Ex-Service Men.	Category.*			
			a	b	c	Not stated.
	%	%	%	%	%	%
16 and 17 ..	—	—	—	—	—	—
18 and 19 ..	—	—	—	—	—	—
20 to 24 ..	100.0	2.7	1.1	1.6	—	—
25 to 29 ..	100.0	16.9	8.6	6.7	0.7	0.9
30 to 34 ..	100.0	20.5	8.2	10.1	1.2	1.0
35 to 44 ..	100.0	21.7	9.8	9.9	0.8	1.2
40 to 54 ..	100.0	17.4	9.5	6.6	0.2	1.1
55 to 59 ..	100.0	20.7	12.0	3.3	1.1	4.3
60 and over ..	100.0	13.8	6.9	5.2	1.7	—
All Ages ..	100.0	18.2	8.6	7.8	0.7	1.1

\* a—Those whose disability would not prevent them from returning to their usual occupation or to an analogous occupation under ordinary industrial or commercial conditions, after training if necessary.

\* b—Those whose disability would prevent them from returning to their usual occupation, but would not preclude them from employment under ordinary industrial or commercial conditions in what may be described as a "light job."

\* c—Those whose disability renders it difficult for them to be employed under ordinary industrial or commercial conditions, except in some institution specially designed for ex-service men suffering from very severe occupational disability.

## BRITISH AND FOREIGN UNEMPLOYMENT.

[Compiled from sources indicated in the text.]

*General considerations.*

An exact statistical measurement of unemployment, on the basis of existing official or non-official figures, is at present impossible for any country; *a fortiori* it is impossible to institute as between two countries any exact statistical comparison. All that statistics can do in the matter is to create a certain presumption or suggest some degree of probability. And before using them for this purpose, it is necessary first to notice their inevitable limitations.

To begin with, it is evident that the significance of "unemployment" must vary with the general character of a nation's economic activity and mobility. Moreover, the term "unemployment" in the sense of cessation or absence of wage-earning can hardly be applied, for instance, to a farmer, however little, owing to the season or even owing to agricultural depression, he may, in fact, be working at particular times. There are, of course, great differences between the leading countries of Europe and America as to the proportion of their "occupied" population engaged in agriculture. Agricultural statistics are full of pitfalls; but the following proportions for the last date available may be regarded as sufficiently reliable and comparable to serve the present purpose: Great Britain (1911), 8 per cent.; Belgium (1910), 17 per cent.; Germany (1907), 37 per cent.; France (1911), 41 per cent.\* For the United States a roughly comparable figure is 33 per cent. (1910).† In every one of these countries many of the agricultural population are only wage-earners; but it is generally true that where the agricultural element is relatively large, the proportion farming on their own account is also large. Thus in Germany (1907) wage labourers were in number only 34 per cent. of those engaged in agriculture as their main occupation‡; and in the United States (1910) they constituted 50 per cent.§ In Great Britain, on the other hand, while agriculture accounted for so much smaller a part of the whole occupied population, of that part wage-earning labourers made up 77 per cent.||

The same consideration is pertinent, though to a much smaller extent, with respect to those engaged in industry as employers or on their own account and not as wage-earning employees. However slack or suspended their activities may be, they are not commonly reckoned among the unemployed. But countries differ considerably as to the proportion such persons form of the occupied population.

\* Report of Professor Macgregor in Final Report of Agricultural Tribunal, 1924, Cmd. 2145, p. 166.

† Fourteenth Census of the United States, Abstract p. 482.

‡ Statistisches Jahrbuch für das Deutsche Reich 1914, p. 15.

§ Fourteenth Census of United States, Abstract p. 483.

|| Cmd. 2145, p. 173.

Some indication of the extent of such differences, for instance, as between Great Britain and Germany is furnished by official figures, which, though not strictly comparable, yet display the general position. By the British Census of Production in 1907, of the nine and a quarter millions who came within its scope (not including, that is, agriculture and fisheries, transport or "trade" in the narrower sense) a number, which amounted to 9.3 per cent. of the total, was estimated to be employers or working on their own account\* ; while the German Occupation Census of the same year, out of the 11½ millions assigned to "industry and mining," returned 15.4 per cent. as independent (Selbständige, i.e. not employees).†

It will be recognised, then, that unemployment statistics must normally relate only to the wage-earning portion of the population, and that their significance accordingly, in relation to the whole economic activity of each country, must depend on the proportion which the wage-earning part bears to the whole population. And, with respect to the wage-earning population, there are marked differences between the several countries, e.g. in regard to climate, which affect employment at particular seasons.

One fact has also to be borne in mind which has only been realised since the investigations of Jevons, beginning in 1862. That is, that while particular trades in any one country may follow a course of their own, there is a general movement of the industrial and commercial activity of the country as a whole over a series of years, which is reflected in employment. This "cyclical movement"—this fluctuation from prosperity to depression and from depression to prosperity—is now generally recognised. And, while that is so, the significance of the unemployment to be found at any particular time in any one country, as compared with that at another time in the same country, or at the same time in another country, must largely depend on the point reached in the cycle in each case.

#### *Material available.*

For reasons into which it is unnecessary to enter here, most of the attempts of a governmental or private character before the War to collect figures of unemployment were unlikely to reach reliable results. Figures are most trustworthy when they are returned by organisations which are engaged in the payment of "benefit" to unemployed persons, and have the means of ascertaining whether members are, in fact, unemployed. Until after the War the only organisations so situated were those trade unions—by no means all—which paid out-of-work benefit to their members. And hence it was the trade union reported percentage of unemployment—i.e. the number unemployed in those unions which made returns, stated

\* Census of Production Final Report, 1912, Cmd. 6320, p. 8.

† Stat. Jahrbuch 1914, p. 14.

as a percentage of the membership thereof—which was earliest to be ascertained, and—until the creation, mainly since the War, of a system of unemployment insurance—this was the only figure available for examination.

Before the war the only published returns from societies paying unemployed benefit were those published by the British, German and Netherlands Governments. Of these the Dutch figures only began in 1911. Attention must therefore perforce be confined, so far as the pre-war period is concerned, to the British and German figures, the latter of which began to be issued from 1903.

*Reliability of available material.*

What these statistics gave was the number of members of the unions reporting who were returned by them as totally unemployed at a particular date each month, and the percentage they constituted of the total membership. But they did not indicate the volume of employment, since they showed neither overtime nor short time. The importance of this limitation will be realised when it is remembered that in coal mining and the textile trades a diminution of employment mainly takes the form, in ordinary periods, of short weeks or short time, rather than of dismissal of employees. It follows that the volume of employment, or amount of work done, fluctuates more than the numbers employed. Prosperity and depression are alike greater even in the unions reporting than the unemployment percentage would indicate. Nor did that figure show how the unemployment was distributed; whether a few were unemployed a long time or many a short time. Nevertheless, it furnished a rough-and-ready index of employment conditions; there could be no doubt that when in Great Britain the figure sank to the neighbourhood of 2 per cent., trade was prosperous and employment good, and when it rose to 7 per cent. or 8 per cent. trade was depressed and employment largely restricted.

But it was long doubtful how far such percentages, derived before the war from only a small proportion\* of some fifteen or sixteen million wage-earners, could be taken to indicate the amount of unemployment among the wage-earners of Great Britain as a whole. It was urged on the one side that they mainly concerned skilled workmen; and that unskilled were more insecure in their employment, though this proposition was questioned by others. It was urged, on the other hand, that the unions in question did not include certain classes of wage-earners—those engaged, for instance, in agriculture, in domestic service or in Government or railway service—who ordinarily enjoy regular employment.

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\* See Table (pp. 219–220).

The general acceptability of the trade union index number with respect to the great body of ordinary industrial workers (i.e. other than those in the occupations just mentioned) has been confirmed by comparisons which have since become possible: in the first place, by certain calculations of Professor Bowley in 1912; and, in the second place, by the figures produced by the introduction of unemployment insurance. Besides the index figure for all the trade unions making returns and the numbers unemployed in each industry, so far as it was represented therein, the Labour Department of the Board of Trade (now the Ministry of Labour) has for many years obtained a number of special returns from the principal industries—the number of workpeople employed by such firms as furnished information in the coal mining, iron and steel, cotton, woollen and worsted, boot and shoe, pottery and brickmaking trades, the number of seamen shipped, the number of dock labourers employed, the number of furnaces in blast and tinplate mills in operation, &c. While the trade union index figure was based on returns including in 1911 some 800,000 workpeople only, the total number included in all the thirty series of numerical returns of one kind or another was computed to be about 6 millions. It had been thought that the material was too heterogeneous and disparate to allow of any general statistical conclusion being drawn from it. But by applying certain recognised mathematical methods, Professor Bowley in 1912 combined all the information thus provided for the period 1894 to 1911, and obtained therefrom a new series of annual index figures. This agreed to a surprising extent with the series of trade union annual index figures. In most years the two series very closely followed one another, each being for some years slightly above and for some years slightly below the other. And the conclusion to which he arrived from the comparison was that "the Labour Department's number is a very good index of employment, though perhaps it may suggest that it is an index rather than a measure."<sup>\*</sup>

The other check upon the trade union index is that which has recently been made possible by the institution of Unemployment Insurance. It will be seen from reference to p. 33 that a comparison between the percentage of insured workpeople unemployed with the trade union figure indicates that the latter is not only a fairly reliable index but even a tolerable measure of unemployment.

That being so, the trade union percentage may be used with some confidence for this country; bearing always in mind that it indicates the percentage totally unemployed at the end of each month, or, in the case of annual averages, the average of these monthly figures; and that it does not show the distribution of unemployment among the employed, nor the amount of work the employed actually obtain.

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<sup>\*</sup> Journal of the Royal Statistical Society, July, 1912 (LXXXV, 291). See especially Table IV and Diagram III. See also Memorandum on p. 218 above.

*Comparability of British and German Returns.*

The German trade union figures have been obtained in substantially the same way, and are subject to the same qualifications. The question, therefore, which next arises is as to their comparability in other respects.

Some considerations have been adduced which bear rather on the relation of such industrial unemployment as does exist to the general economic activity of the country than on its actual amount. It may be, or have been, the case, as has been asserted, that rural workers attracted to the towns (partly perhaps owing to the compulsory military service having brought them within the range of the attractions of town life), when thrown out of work leave the towns and fall back on agricultural employment. The demand for labour in agriculture being, as a rule, in excess of the available supply, this dovetailing of urban and rural employment may be an important influence tending to reduce the percentage of industrial workers who are out of employment at any time. Again, it may be, or have been, the case that standard rates of wages do not or did not prevail in Germany to the same extent as in Great Britain, and that there results a more speedy return to employment of some kind. It may have been the case that, during some part of the decade before the war, the organisation of labour exchanges in Germany and the relegation of public works to periods of depression tended to the restoration of the unemployed to the ranks of the more or less fully employed workers. But all these considerations, so far as they have force, bear upon the question of the causation of unemployment, which is not dealt with in this memorandum.

A more directly pertinent consideration has to do with the question whether the German trade union figures represent as fairly as do the British the general state of industrial employment in the country as a whole. Trades vary in the degree to which they are liable to unemployment; and conclusions drawn from totals in which important trades are very differently represented may therefore be incomparable. But, in fact, the statistics of Great Britain and Germany before the war resembled one another pretty closely in the proportion in which the metal working trades—trades peculiarly liable to fluctuation—were represented, having been 39 per cent. in the case of Great Britain and 32 per cent. in the case of Germany. Another important group, the building and woodworking trades made up 13 per cent. in Great Britain and 11 per cent. in Germany of the membership of unions making returns. On the other hand, it has to be noted that 12 per cent. of the German unemployed were associated with the transport trades, which were unrepresented in the British figures.

There remains the important question whether the German index figure was or was not as complete a record of the unemployed members of German trade unions making returns as the British

figure is of the British unions. And on this point it is difficult to speak with any assurance. On the one hand, there were differences both in the period qualifying for benefit and in the period of benefit. When the question was enquired into by the Board of Trade in 1909, the qualification for benefit was found to be about ten months in Great Britain, in Germany about fifteen. The period of benefit in 90 per cent. of the German unions was ten weeks or less, in British unions it was in some important trades four or five times as long, and ten weeks only in 11 per cent. These contrasts would seem to be sufficient greatly to impair comparability were it the case that the German figures include only those in actual receipt of unemployment benefit. But this is far from being the case. From the autumn of 1906 onward the German Statistical Department endeavoured to secure a complete return of all those members known to the unions to be out of work; and some of the more important of the German unions endeavoured to secure as complete a return as possible of all members who were out of employment. The official returns were in consequence described as being of "Unemployed whether in receipt of benefit or not" (unterstützte und nicht-unterstützte); and, in addition, they were classified according to "Percentage of members of unions returned as unemployed who drew benefit" each quarter.

The following figures may serve as illustrations:—

		1st Q.	2nd Q.	3rd Q.	4th Q.
Membership of unions reporting at the end of each quarter.	1907	1,276,084	1,294,227	1,301,864	1,311,723
	1912	(Average for the year 2,048,928.)			
Unemployed (receiving and not receiving benefit) at the end of each quarter.	1907	%	%	%	%
	1912	1.3	1.4	1.4	2.6
Proportion of unemployed receiving benefit.	1907	1.6	1.7	1.5	2.8
	1912	53.6	47.5	40.0	50.7
	1912	55.2	54.9	48.6	52.1

The fact revealed by this table that about half the persons returned as unemployed received no benefit obviously affects the significance for purposes of comparison of such differences as may exist between the British and German conditions of benefit.

#### *Trend of British and German Returns to 1913.*

Omitting the years 1903-5—when the German unions were being brought into the returns and before care was taken in Germany to

include *all* the unemployed members of the unions reporting—the annual average percentages of unemployment before the war were as follows :—

	<i>United</i>	
	<i>Kingdom.</i>	<i>Germany.</i>
1906 .. .. .	3·6	1·1
1907 .. .. .	3·7	1·6
1908 .. .. .	7·8	2·9
1909 .. .. .	7·7	2·8
1910 .. .. .	4·7	1·9
1911 .. .. .	3·0	1·9
1912 .. .. .	3·2	2·0
1913 .. .. .	2·1	2·9
Average 1906–13 .. .. .	4·47	2·13

After what has been already said, it would seem a not unjustifiable conclusion that, while these figures are not sufficiently comparable to prove, they are sufficiently comparable to create a presumption, that whole-time unemployment in the sense in which the term is used in this memorandum was throughout a phenomenon of less magnitude in Germany than in Great Britain.

This presumption is strengthened by two pieces of what may be regarded as confirmatory evidence: one for a year, 1895, before trade union figures were available in Germany, the other for the winter of 1908–9.

Comparisons between two countries in particular years may, of course, easily be misleading, because, as before remarked, they may have arrived at a different point in the trade cycle. One country may, for instance, have reached a stage of prosperity or depression at which the other arrives a year or so earlier or later. But the only available comparable statistics for Great Britain and Germany—those of exported manufactures, of railway receipts and of wheat prices\*—show a movement so similar in general character during this period, that a comparison between Germany and Great Britain in particular years seems fairly admissible.

(1) In 1895 a special Census of Unemployment was taken in Germany, in connection with the Occupation Census of the June of that year and the ordinary Census in December. This returned, out of the total wage-earning population of the whole Empire, 1·11 per cent. as unemployed on 14th June and 3·43 per cent. on 22nd December. If the mean of these two figures be taken as the average for 1895, it would be 2·27 per cent. The British unemployed trade union percentage for that year was 6·05 per cent.

(2) In the winter of 1908–9 many German municipalities undertook special unemployment censuses of their own. The methods employed were open to and have received severe criticism

\* Conveniently charted in *British and Foreign Trade and Industry*, Cmd. 4954 (1909).



from German statisticians. From eighteen large cities, including every important type in every part of the Empire, the returns showed an average of 4.1 per cent. But according to a high authority, Dr. Otto Most, Director of the Statistical Bureau of Dusseldorf, "it was notorious that this figure is very considerably less than the reality; and according to careful estimates must be increased by about one-half, so that the average of these towns would in reality be about 6 per cent."\* If any sort of reliance can be placed upon this estimate, and it be compared with the British trade union figure varying at this time about 9 per cent., the fair conclusion would seem to be that unemployment in England was distinctly more severe in this time of common depression.

*Fluctuations in Great Britain and Germany.*

Inadequate as the available statistics may be for the purposes of comparison between one country and another with respect to the exact amount of unemployment, the movements of each set of figures over a period of time appear to furnish a good indication of the fluctuations of unemployment in each country, any imperfections in the records of a particular country being of a more or less constant character. It will be noticed that the annual trade union percentage for Germany ranged from a minimum of 1.1 (in 1906) to a maximum of 2.9 (in 1908 and 1913), i.e. the fluctuation was over a range of 1.8 per cent., while in Great Britain the variation was from 2.1 per cent. (in 1913) to 7.8 per cent. (in 1908), i.e. over a range of 5.7 per cent. Or taking the monthly percentages in the period 1906-13, the minimum in Germany was 0.7 per cent. (August, 1906), the maximum 4.8 (December, 1913)—a range of 4.1 per cent.; in Great Britain the minimum was 1.7 per cent. (in April, 1913) and the maximum (disregarding the month of the coal strike, March, 1912) was 9.5 (in October, 1908)—a range of 7.8 per cent. These figures suggest that the fluctuations of unemployment in the sense used in this memorandum are distinctly wider in Great Britain.

*Trend of British and German Returns since 1919.*

For the period since the war, though the official statistics of the several countries are still so divergent in method of compilation that anything like exact comparisons continue to be out of the question, the phenomena of unemployment have been so conspicuous that a broad general estimate of the position is easily possible. If we take, first, Germany and Great Britain, the picture presented by the official statistics, however inexact they may be within 1 or 2 per cent. at any one time, sufficiently corresponds with what is common knowledge—viz., that from the later months of 1920 to the end of 1922 there was very little unemployment in Germany, and a great

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\* Dr. Otto Most, *The Problem of Unemployment in Germany*, reprinted from "The English Review" by the Cobden Club, 1910.

deal in Great Britain ; that during the greater part of 1923 the countries tended more nearly to resemble one another, though with a marked advantage still on the side of Germany ; that during the winter of 1923 and the spring of 1924, Germany went through a period of far larger unemployment than Great Britain ; that in the autumn of 1924 and the spring of 1925 German unemployment again fell below the British ; that during almost the whole of 1925 there was substantially more unemployment in Great Britain than in Germany, and that towards the close of 1925 unemployment in Germany again exceeded that in Great Britain.

There has been in existence in Germany since the war a system of Unemployment Donation or Relief administered by the local authorities. Since October, 1923, this has involved compulsory contributions from employers and workpeople, collected by way of addition to the payments for sickness insurance. It is not technically an insurance scheme, though for convenience it is sometimes so designated in English official reports, since the payment is rather of the nature of a compulsory levy and carries with it no contractual right to benefit. The system has naturally led to the collection of statistics as to the numbers receiving relief as unemployed, and these are published for the beginning and middle of each month. The Government policy, however, with respect to the grant of relief has changed so greatly from time to time that it is impossible, with our present knowledge, to use the relief figures as a check on the trade union figures in the way that the insurance figures can be used in this country. Nevertheless, the numbers reported as relieved follow the trade union index figures in their fluctuations up and down sufficiently to strengthen the claim of the latter to serve as a barometer of the situation. Thus, while in November, 1920, the number relieved was about 350,000, in November, 1921, it was about 150,000. In April, 1922, it was 116,000, and the German Statistical Department reported that employment as a whole was entirely satisfactory. During the summer months of 1922 it was under 20,000. In April, 1923, it was about 240,000 ; in July it had fallen to about 160,000. In December, 1923, it was nearly 1,500,000.\* Then it fell to about 240,000 again in May, 1924 ; and to about 200,000 in June and July, 1925. It had risen to approximately 670,000 by 1st December, 1925, and to about 1,500,000 by the end of the year.

During what was called "the period of economic demobilisation," the German Government adopted the expedient of actually prohibiting the dismissal of workers by concerns employing 20 persons or more, unless a reduction of working hours to 30 a week had already been effected and had proved insufficient. Orders to this effect were in force from 4th January, 1919, to 15th October, 1923. How far the Orders did, in fact, influence the distribution of employment there seems at present no means of ascertaining.

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\* During the occupation of the Ruhr.

*International Statistics.*

Since the war other countries besides Great Britain and Germany have turned their attention to the collection of unemployment statistics. There are great diversities in the methods adopted; and the institution in some countries of unemployment insurance has introduced new and difficult considerations into the very definition of "unemployment." Nevertheless, the information now accessible, while it is still inadequate for exact comparison as to the intensity of unemployment, does furnish valuable evidence on the other important problem—viz., the duration of depression in each country, as marked by unemployment; and the information has been brought together, with this question in view, in a report entitled "Unemployment 1920-1923," issued by the International Labour Office in 1924.

*United States of America.*

In the United States as in Great Britain there was a period of "intense boom" in 1919-20. The depression of 1921, according to the Report of a Committee appointed by the President's Conference on Unemployment, "caused a diminution of approximately one-sixth of the total volume of employment in the United States."\* The figures quoted below seem to indicate a collapse of employment which in its earlier stages was sharper than the contemporary depression in Great Britain. But the recovery was much more rapid. The United States Bureau of Employment has prepared an index (not of Unemployment but) of Employment in manufacturing industries. It has been derived from an increasing number of establishments year by year, and its construction is open to criticism in other respects. But it probably gives a substantially accurate impression of the general movement. Taking the figures for 1923 as a whole as 100, the figure for 1920 works out at 109.9 and that for 1921 as 85.1. The rapidity of the slump, parallel with that in Great Britain, is marked by the index figures:—

1920: June ..	117.9	1921: January ..	76.8
July ..	110	February ..	82.3
August ..	109.7	March ..	83.9
September ..	107	April ..	84
October ..	102.5	May ..	84.5
November ..	97.3	June ..	84.9
December ..	91.1	July ..	84.5
		August ..	85.6

But from that point there was a steady recovery. The average figure for 1922 was 88.4; but in December, 1922, it was 96.6, and in March, 1923, it reached 101.8. According to the *Federal Reserve*

\* See p. 10, "Unemployment 1920-1923," issued by the International Labour Office.

*Bulletin* for May, 1923, "the growth in the physical volume of production since the middle of 1921 indicates a rate of industrial recovery almost without parallel in American business."

Since the autumn of 1923, to judge from the employment index, the level then reached failed to be entirely maintained. The figure for 1924 was 90·3; for the first eleven months of 1925 it was 91; in November, 1925, it was 92·5. There has undoubtedly of late been a dull time, especially in the textile trades. But according to the latest unofficial reports, "general business conditions remain good and trade is active in almost all lines"\*; while at the end of 1925 there was "practically full employment for the wage-working population."†

#### *France.*

France has no trade union or official figures of unemployment, but the annual report of the Commercial Counsellor to H.M. Embassy at Paris, dated July, 1925, states that "For nearly four years—since the autumn of 1921—unemployment in the accepted meaning of that term has been non-existent in France. This has been clearly indicated, not only by the only available statistical test of an official character for the whole of France, namely, by the weekly returns showing the number of recipients of benefit from the unemployment relief funds, but also by the constant stream of workers that have been systematically introduced into, or who have sought employment in, France. The continuous intensity of the demand for workpeople is manifested by the fact that, although the abnormal demand for labour for the reconstruction of the devastated regions considerably abated in 1924 with the constant progression toward the complete termination of that task and in the reduction in the funds available therefor, yet the other industries, including agriculture, not only absorbed at once those no longer required for reconstruction work, but also continued to absorb immigrant labour to the extent of nearly 5,000 a week in 1924 and of nearly 3,800 a week up to the end of July, 1925."

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\* *Lloyd's Bank Monthly*, December, 1925.

† *National City Bank of New York Letter*, January, 1926.

## CHAPTER V.

## MACHINERY FOR INDUSTRIAL NEGOTIATION.

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NOTE.—As regards systems of wage payment, see pp. 110-9;  
and as regards time lost through trade disputes, p. 166.

HISTORICAL NOTE ON CONCILIATION AND  
ARBITRATION IN INDUSTRIAL DISPUTES.

[Furnished by the Ministry of Labour.]

*Conciliation Boards.*

During the latter part of the nineteenth century there was a slow if steady growth in the organisation of employers and workpeople which was reflected by the establishment, under agreement between associations of employers and workpeople, of permanent voluntary conciliation and arbitration boards and of joint committees unsupported by the force of law and dependent entirely for their success on the goodwill of the parties.

The majority of the voluntary conciliation boards dealt with particular trades; a few district or general boards existed but have largely ceased to function. In addition, there were arrangements which, though not coming within the definition of conciliation boards, provided procedure for the settlement of differences. This voluntary machinery covered many of the principal industries, and was most effective where employers and workpeople were best organized.

The definition, objects and constitution of the boards varied considerably. They generally consist of an equal number of representatives of the employers' associations and of the trade unions who are parties to the agreement establishing the board, and consequently there is sometimes a deadlock on the difference brought before the board. To meet such contingencies, provision is made in the rules of some of the boards that in the event of failure to secure agreement, application shall be made to the Minister of Labour for the appointment of an umpire, arbitrator, or conciliator. Some of the boards limit themselves to the fixing of a general level of wages, others deal solely with the question of demarcation of work, but the majority do not in any way restrict the scope of their activities. The value of conciliation boards is measured generally by their ability to adjust differences before a stoppage of work ensues, and not by their power to settle strikes and lockouts. With this object, the rules of a number of the boards require that there shall be no stoppage of work pending the consideration of the differences referred to them; and in some cases where a strike or lockout has occurred, the board has refused to deal with the matter until resumption of work has been secured. Most of the big staple industries were covered by conciliation boards in the period before the war; but as the wages level of 1913 was the result of adjustments made in the course of twenty or thirty years, in order to meet a very gradual rise in the general level of prices, the efficacy of the boards for making the frequent and drastic changes necessary in disturbed economic conditions, such as existed in the period following the war, was never seriously tested.

*Royal Commission of 1891.*

Following certain trade disputes a Royal Commission was appointed in 1891 "to consider questions affecting the relations between employers and employed, the combination of employers and employed, and the conditions of labour." The Commission expressed the hope that the existing rapid extension of voluntary conciliation boards would continue, and suggested "that a central Government Department, possessed of adequate staff, and having the means to procure, record and circulate information, might do much by advice and assistance to promote a more rapid and universal establishment of trade and district boards adapted to circumstances of various kinds." They pointed out that, while there was no legal reason why the appropriate Government Department should not, even without legislation, make enquiry into the causes and circumstances of disputes and promote conciliation, a statutory provision to this effect would probably be of use as giving the Department a better *locus standi* for friendly and experienced intervention. On the subject of arbitration, the Commission observed that, even where there was a desire by both sides to refer to arbitration, there was often a difficulty in finding suitable arbitrators or umpires, and it was suggested that power should be given to a public Department to appoint, on application from the parties interested or from a local board of conciliation, a suitable person to act as arbitrator. The Commission's opinion was that decisions given by arbitrators thus appointed should not be legally binding, any more than those of unofficial arbitrators.

*Conciliation Act, 1896.*

On the report of this Commission the Conciliation Act, 1896, was passed. The Act remains in existence, but it is now rarely used, having been for practical purposes superseded by the Industrial Courts Act of 1919. The Conciliation Act conferred on the Board of Trade statutory authority, transferred in 1916 to the Minister of Labour, to intervene in an industrial dispute. The Act was framed on a purely voluntary basis and enabled the Board of Trade:—

- (1) to take such action as seemed expedient to promote an amicable settlement of a difference ;
- (2) on the request of either party interested to appoint a conciliator to assist in securing a settlement ; and
- (3) to appoint an arbitrator to determine a difference with the consent of both parties thereto.

This intervention was employed where opportunity offered from 1896 onwards. The number of cases dealt with averaged 21 per year from 1896 to 1907.

*Trade Disputes Act, 1906.*

The Trade Disputes Act, which was passed in 1906, removed the disabilities placed on trade unions by the "Osborne" judgment, and by certain legal decisions on the subject of picketing. Briefly, the Act legalises peaceful picketing and confers immunity on Trade Unions in respect of acts done in contemplation and furtherance of a trade dispute.

*Courts of Arbitration.*

In 1908 the President of the Board of Trade proposed to Chambers of Commerce and employers' and workmen's associations the creation of panels of independent persons, and of representatives of employers and workmen, from which Courts of Arbitration might be appointed by the Board of Trade. It was hoped that Courts so composed would remove the reproach sometimes brought against individual conciliators and arbitrators that, however fair they meant to be, they did not intimately understand the position of the manual worker. Such panels were duly constituted and have since been maintained.

*Industrial Council, 1911.*

Increasing use was made of the machinery of the Conciliation Act for the purpose of settling industrial disputes, but in the meantime trade union organisation was growing and in many cases a strike was regarded as a more effective means of securing a settlement. This culminated in the national strikes of 1911 and 1912. The strikes of seamen, dockers, and railwaymen in 1911 occurred in trades where no effective machinery existed for the settlement of differences by joint negotiation, as the employers had been unwilling to recognise the trade unions as representative of the workpeople. In 1912 the first instance occurred of a really national strike in the coal trade, when simultaneous stoppages occurred in all the coal districts, irrespective of the fact that the terminal dates of contracts of service and wage agreements varied in the different districts. Except for the coal mines dispute, which was settled by the passing of the Coal Mines (Minimum Wage) Act, 1912, settlements of the disputes were effected largely by the good offices of the Board of Trade, but it was apparent from the duration and effects of these and other disputes that the existing official machinery needed strengthening.

To this end the Industrial Council was established in 1911, "for the purpose of considering and enquiring into matters referred to them affecting trade disputes, and especially of taking suitable action in regard to any dispute referred to them affecting the principal trades of the country or likely to cause disagreement involving ancillary trades, if the parties before or after the breaking out of a dispute are themselves unable to settle." The Council consisted of thirteen representatives of employers and a corresponding number



of workpeople, presided over by Sir George Askwith, now Lord Askwith. The memorandum issued by the Board of Trade with respect to the Council, stated that "the Government did not desire to interfere but rather to encourage and foster such voluntary methods or agreements as are now in force or are likely to be adopted for the prevention of stoppages of work or for the settlement of disputes, but it is thought desirable that the operations of the Board of Trade in the discharge of their duties under the Conciliation Act should be supplemented and strengthened, and that effective means should be available for referring such difficulties as may arise in a trade to investigation, conciliation or arbitration as the case may be."

To the Council was referred for examination the question of securing due fulfilment of industrial agreements, and in their conclusions the Council stated that the whole organisation of collective bargaining, with which they expressed their approval, is based upon the principle of consent. "We have found that such collective agreements have been, as a rule, kept, and we are loth either to interfere with the internal organisation of the associations on both sides by putting upon them the legal necessity of exercising compulsion upon their members, or to introduce a new principle which might have far-reaching and unexpected effects upon the natural growth of such associations or upon the spirit with which as a rule they have been carried on. We have, therefore, come to the conclusion that the establishment of a system of monetary penalties is not desirable and that such penalties as prohibition of assistance to persons in breach should not be made legally obligatory. We have stated, however, that we wish to give our opinion the maximum degree of emphasis that where a breach of an agreement has been committed, no assistance, financial or otherwise, should be given to the persons in breach by any of the other members of the associations connected with the agreement." While expressing these views upon the enforcement of agreements, the Council were in favour, subject to certain conditions, of the extension of an agreement to the whole trade or district concerned.

In the special conditions created by the war, the Industrial Council fell into abeyance.

#### *Enquiry into the working of Canadian Legislation.*

In 1912, Sir George Askwith at the request of the Government conducted an enquiry into the working of the Canadian Industrial Disputes Investigation Act of 1907. That Act is described later in this chapter,\* but it may be explained here that, briefly, the Act provided that notice of the existence of a dispute in certain important industries must be given to the Government, and that a strike or lock-out could not legally be entered upon prior to or during the reference of such a dispute by the Minister of Labour to

\* See p. 356 *et seq.*

a Board of Conciliation and Investigation. The Act applied these provisions primarily to mining, transport and the public utility services, but they might in certain instances be applied to industry generally. In his report of December, 1912, Sir George Askwith said, "I consider that the forwarding of the spirit of conciliation is the more valuable portion of the Canadian Act, and that an Act on these lines, even if the restrictive features which aim at delaying a stoppage until after enquiry were omitted, would be suitable and practicable in this country." No legislative action on these lines has resulted, but a Bill was introduced by Lord Askwith and passed the House of Lords in 1924, proposing to make strikes and lock-outs illegal under penalty of a fine in those cases where the Minister of Labour has referred a dispute to a Court of Inquiry under Part II of the Industrial Courts Act.

#### *Committee on Production.*

The existing legislation was found to be too limited in scope to cover the abnormal circumstances arising out of the war, and, in view of the urgent need of maintaining an uninterrupted supply of munitions and other materials necessary for bringing the war to a successful conclusion, special legislation was enacted for the purpose of preventing strikes and lock-outs in essential services. As part of this policy, a Committee, known as the Committee on Production, was appointed with Sir G. Askwith as Chairman, in 1915, "To inquire into the best steps to be taken to ensure that the productive power of employees in engineering and shipbuilding work for Government purposes shall be made fully available so as to meet the needs of the nation in the present emergency." The Committee issued a series of interim reports, including a recommendation that "with a view to preventing the loss of production caused by disputes between employers and workpeople, no stoppage of work or strike or lock-out shall take place on work for Government purposes. In the event of a difference arising which fails to be settled by the parties directly concerned or by their representatives, or under any existing agreements, the matter shall be referred to an impartial tribunal nominated by His Majesty's Government for immediate investigation and report to the Government with a view to a settlement." This recommendation was adopted by the Government, and henceforward the Committee sat as an arbitration tribunal, its functions in regard to production being merged in the Ministry of Munitions.

#### *Treasury Agreement.*

By the Treasury Agreement of 1915, the trade unions concerned in producing commodities for the war undertook to recommend to their respective members that stoppages of work on munitions work should not take place during the war, and that, failing settlement by other means, differences should be referred to arbitration.

*Munitions of War Acts, 1915-16.*

The existing arbitration procedure was strengthened by the Munitions of War Acts, 1915-16, which provided that where a dispute arising on munitions work (as defined in the Acts) was reported to the Board of Trade and a settlement was not reached, the dispute should be referred to arbitration. Any award or settlement was binding under penalty on both employers and workers concerned. It was further provided that no strike or lock-out should take place unless 21 days had elapsed since the report of the difference to the Board of Trade, and the difference had not during that period been referred by the Board of Trade for settlement in accordance with the Acts. The Acts thus introduced compulsory arbitration at the option of the Board of Trade, and prohibited strikes and lock-outs in certain circumstances. This was a definite break with the voluntary principle on which all labour differences in the country had hitherto been settled. The Acts also gave power to the Minister of Munitions by Order to give directions as to the rates of wages and hours of labour and conditions of employment of female workers engaged on munitions work in certain classes of establishments.

*Commission on Labour Unrest.*

In June, 1917, the Prime Minister appointed a Commission of Inquiry into Industrial Unrest. The Commission dealt with factors which were in many respects peculiar to the war-time conditions, but certain of the causes of unrest then discovered are still operating, such as the relation between wages and food prices, difficulties in housing, and a disturbance of the proportion between the wages of skilled and unskilled men.

*Munitions of War Act, 1917.*

Following the report, the Munitions of War Act, 1917, was passed in August of that year. The Act empowered appropriate Government departments to report a difference to be referred to arbitration, and the arbitration tribunal had to make its award within 14 days of the date of the reference if practicable. The Act also authorised the Minister of Munitions, in certain circumstances, to make such awards binding on the whole of the munition trades, as defined.

*Features of war-time developments.*

The measures taken during the war to deal with circumstances which arose out of war conditions had three especially important features in regard to the relations between employers and employed. First, arbitration was made compulsory on all munitions work; secondly, the spread of the policy of relating wage increases to increases in the cost of living tended to an approximation of wages as between trade and trade, and also to a greater equalisation in the

weekly wages of skilled and unskilled men ; and thirdly, the normal machinery for collective bargaining was practically suspended. During the war there was a steady growth in the membership of trade unions, which was almost doubled between 1914 and 1919.\*

*Committee on Relations between Employers and Employed.*

It was obvious that the process of readjustment to normal conditions after the war might involve difficulties in the relations between employers and employed, and in March, 1916, the Committee on Relations between Employers and Employed (generally known as the "Whitley" Committee) had been set up as a Sub-Committee of the Cabinet Committee on Reconstruction with terms of reference :—

"(1) To make and consider suggestions for securing a permanent improvement in the relations between employers and workmen.

"(2) To recommend means for securing that industrial conditions affecting the relations between employers and workmen shall be systematically reviewed by those concerned with a view to improving conditions in the future."

The Committee issued five Reports. The first recommended, *inter alia*, the establishment, in industries where organisations representative of both sides were in existence, "of an organisation representative of employers and workpeople to have as its object the regular consideration of matters affecting the progress and well-being of the trade from the point of view of all those engaged in it, so far as this is consistent with the general interest of the community." The Committee, as a means to this end, suggested the formation of Joint Industrial Councils in the several industries. The following quotations from the Report illustrate the general basis of the scheme. "It may be desirable to state here our considered opinion that an essential condition of securing a permanent improvement in the relations between employers and employed is, that there should be adequate organisation on the part of both. . . . We are convinced, moreover, that a permanent improvement in the relations between employers and employed must be founded upon something other than a cash basis. What is wanted is, that the workpeople should have a greater opportunity of participating in the discussion about, and adjustment of those parts of industry by which they are most affected." This policy suggested by the Committee was formally adopted by the War Cabinet in October, 1917, and a number of Councils have since been established.†

\* See p. 284.

† See p. 294 *et seq.*

In their second Report, dealing with the less organised trades, the Committee recommended the establishment, or the continuance where they already existed, of Trade Boards. Accordingly, under the Trade Boards Act, 1918, the Government embarked upon an extensive policy of setting up Trade Boards in those industries where the conditions warranted it.\*

The third Report dealt with the subject of works committees, and the suggestion that Works Committees, representative of the management and the workers employed, should be instituted in particular works.†

In the fourth Report, on the subject of conciliation and arbitration, the Committee expressed themselves as entirely opposed to any system of compulsory arbitration, and emphasised the advisability of a continuance of the existing system whereby industries make their own agreements and settle their differences themselves. The Committee's conclusions were :—

“(1) While we are opposed to any system of compulsory arbitration, we are in favour of an extension of voluntary machinery for the adjustment of disputes. Where the parties are unable to adjust their differences we think that there should be means by which an independent enquiry may be made into the facts and circumstances of a dispute, and an authoritative pronouncement made thereon, though we do not think that there should be any compulsory power of delaying strikes and lock-outs.

“(2) We further recommend that there should be established a standing arbitration council for cases where the parties wish to refer any dispute to arbitration, though it is desirable that suitable single arbitrators should be available where the parties so desire.”

Legislative effect to these proposals was given in the Industrial Courts Act, 1919.‡

The final Report, published in July, 1918, summarised the recommendations previously put forward and reaffirmed the Committee's conviction of the urgency of the matter.

#### *National Conference, 1918.*

Immediately upon the conclusion of the war, the Minister of Labour summoned a National Conference of employers' associations and trade unions to discuss the position arising out of the altered circumstances. The Conference was attended by the Prime Minister and other members of the Cabinet. The two most important matters before the Conference were the position of the war wage advances, and the question of the restoration of the pre-war practices, which

\* See p. 287 *et seq.*

† See p. 302 *et seq.*

‡ See p. 262.

had been dropped by the unions for the purpose of assisting an increased output. Legislation was subsequently carried to deal with these two matters, viz., the Wages (Temporary Regulation) Act, 1918, and the Restoration of Pre-War Practices Act, 1919. Notwithstanding these and other measures, serious labour unrest followed the signing of the Armistice, concerned chiefly with the question of reduction of the normal working week.

*National Industrial Conference, 1919.*

In February, 1919, the Minister of Labour summoned a further National Conference of employers' associations, trade unions and Joint Industrial Councils to consider the causes of unrest and to suggest methods of removing them. The action taken by the Conference is referred to later in this chapter,\* and it is sufficient to mention here that discussions took place and conclusions were reached in regard to hours, wages, conditions of employment, unemployment and its prevention, and co-operation between "capital and labour." Following their report, the Government extended the Wages (Temporary Regulation) Act for a period of six months, and later, in Part III of the Industrial Courts Act, 1919, for a further period of twelve months expiring in September, 1920. Steps were taken to extend the application of the Trade Boards Acts. A Bill for the limitation of hours of work was prepared, but it was found impossible to secure agreement on its provisions, and no further progress was made. Unemployment Insurance was widely extended by the Act of 1920.

*Industrial Courts Act, 1919.*

In accordance with the recommendations of the Whitley Committee, the Government decided to continue the policy of non-compulsion in relation to industrial disputes, and to encourage employers and workpeople in the various industries to deal with their own problems as far as possible. Emphasis was placed on the desirability of machinery being provided within the industries for the joint discussion of differences with a view to the avoidance of stoppages of work, and, to this end, the Government took special steps to assist in the establishment of Joint Industrial Councils in industries in which the organisation on both sides was sufficiently strong. With regard to State intervention in industrial disputes, the policy adopted is contained in the Industrial Courts Act, 1919.

Under Part I of this Act, a trade dispute may be reported to the Minister of Labour, whereupon the Minister has to take the matter into consideration, and to take such steps as seem to him expedient for promoting a settlement thereof. This enables the Minister, if the parties to the dispute consent, to endeavour to settle the dispute

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\* See pp. 306-9.

by conciliation. The fact that such action is taken only by the consent of the parties ensures that negotiations are carried on under favourable conditions; and it is by conciliation that the majority of disputes in which the Minister is called upon to intervene are settled, in many cases by the ultimate agreement of the parties to refer their difference to arbitration.

As to arbitration, an important provision of the Act is contained in Section 2 (4), the object of which is to ensure that existing joint machinery shall have been fully exhausted before a difference can be referred to arbitration. This Section is as follows:—

“ If there are existing in any trade or industry any arrangements for settlement by conciliation or arbitration of disputes in such trade or industry, or any branch thereof, made in pursuance of an agreement between organisations of employers and organisations of workmen representative respectively of substantial proportions of the employers and workmen engaged in that trade or industry, the Minister shall not, unless with the consent of both parties to the dispute, and unless and until there has been a failure to obtain a settlement by means of those arrangements, refer the matter for settlement or advice in accordance with the foregoing provisions of this section.”

This was introduced upon representations that the power of intervention in disputes occurring in organised industries should be restricted, and it was clearly contemplated that the Government might have to take some risks in permitting temporary industrial trouble to arise for the sake of making both sides face their own responsibilities.

The arbitration procedure outlined in the Act is, that the Minister of Labour may, with the consent of the parties, refer differences to arbitration either by the Industrial Court, a single arbitrator, or a Board of Arbitration constituted of employers and workpeople with an independent chairman.

The Industrial Court is a permanent Court of Arbitration, established in accordance with the following recommendation of the Whitley Committee:—

“ It would appear desirable that there should be a Standing Arbitration Council on the lines of the present temporary Committee on Production, to which differences of general principles and differences affecting whole industries or large sections of industries may be referred in cases where the parties have failed to come to an agreement through their ordinary procedure, and wish to refer the differences to arbitration. Such tribunal should include in its membership persons who have practical experience and knowledge of industry, and who are acquainted with the respective standpoints of employers and workpeople.”

In Part II of the Act the Minister is given power to inquire into the causes and circumstances of a dispute, whether apprehended or existing, and if he thinks fit, to refer any matters appearing to him to be connected with or relevant to the dispute to a Court of Inquiry. This power is intended to be exercised by the Minister in cases in which, in his opinion, the interests of the public are involved. A Court of Inquiry is not a form of arbitration, and there is no question of securing the consent of the disputants to its appointment. Courts of Inquiry have been appointed in the following cases :—

1920.—Dock Workers.

Coal Tipplers and Trimmers.

Electrical Trades Dispute, Penistone.

1921.—National Tramways Dispute.

1922.—Engineering Trades Dispute.

1923.—Coal Tipplers and Trimmers, South Wales.

1924.—Docks Dispute.

Railway Shopmen. (Great Northern Section of the L.N.E. Railway.)

Stoppage of London Tramway and Omnibus Services.

Coal Mining Industry. Wages dispute.

Threatened stoppage of work at the coal exporting ports of Great Britain.

Building Industry Dispute.

Covent Garden Dispute and the threatened stoppage of work at the ports and elsewhere.

1925.—Threatened stoppage in the Building Industry in connection with "Weir" Steel Houses.

Courts of Inquiry have power to request persons to give evidence, and, though no penalties are attached to failure to fulfil the request, in no case has it been refused.

The following table shows the distribution of cases under the Industrial Courts Act since the date of its passing until 30th June, 1925 :—

Year.	In- dustrial Court.	Single Arbi- trators.	<i>Ad hoc</i> Boards of Arbi- tration.	Con- ciliation Settle- ments.	Courts of Inquiry.	Total.
1919 ..	49	385	20	56	—	1,323*
1920 ..	540	73	15	286	3	917
1921 ..	122	19	7	123	1	272
1922 ..	37	9	8	48	1	103
1923 ..	113	14	6	33	1	167
1924 ..	143	7	12	83	7	252
1925 (to 30th June).	92	4	5	45	1	147
Totals..	1,096	511	73	674	14	3,181*

\* Includes 813 cases referred to the Interim Court of Arbitration.



*Present position.*

It will be seen from the foregoing that the primary system of settling working conditions is that provided for by the arrangements made in the various industries for joint discussion between organisations of employers and workpeople. The machinery existing for this purpose in a number of industries is described in the succeeding memorandum. The policy of the Government in respect of conciliation and arbitration is now based on the assumption that, in the first place, an attempt will be made to settle working conditions by means of the machinery existing in the various industries, but that the attempt will not always succeed.

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NEGOTIATING MACHINERY IN EXPORTING AND  
TRANSPORT INDUSTRIES.

[*Furnished by the Ministry of Labour and, in the case of Shipping, by the Board of Trade.*]

*Coal Mining.*

The establishment of formal organisations among the miners preceded similar steps on the part of the colliery owners. The coal-fields being geographically separate, it was natural that the early organisations should follow the geographical areas, and that a number of independent District (mainly County) Associations should grow up. The first attempts to form such associations were made in the years 1820-40, but without very much success. By 1840, however, several County Unions were in existence, and in 1841 a national Miners' Association was established to secure unity of purpose. This Association came to an end in 1848, owing to severe depression in the industry, and by 1855, Trade Unionism in the industry was practically extinguished.

Attempts to resuscitate it were made in 1856, and the Unions gradually grew up again with the formation of the Miners' National Union in that year, but there was no effective organisation among the miners until the year 1863. The year 1870 saw the birth of the "sliding scale" system of wages, which embodied the principle that the general wage rate should be automatically governed by the selling price of coal, a system which met with intense opposition from a fairly large section of miners and their representatives in particular districts. The growth of this opposition resulted in 1888 in the splitting off of certain District Associations from the National Union, and the formation of the Miners' Federation. Twenty years later, in 1908 (at the time of the passing of the Eight-hours legislation for underground workers), the two districts of Northumberland and Durham, which up to this time had kept aloof, accepted the constitution of the Miners' Federation of Great Britain, and became constituent districts of what now became for the first time a truly National Federation of Miners.

Each District Association within the Federation has complete local autonomy in administrative and financial matters, and is free to act independently in regard to local strikes, and in making representations to Government Departments. But during the war the Federation was recognised by the Government as the spokesman of the miners throughout the country, and all necessary negotiations were conducted with it. In the same way the Federation has acted for the miners as a whole in making its demands (leading to the Sankey Commission) in 1919, and in negotiating with the colliery owners in 1921 and 1924.

The Federation represents approximately 1,000,000 men (over five-sixths of the whole number of colliery employees); and it puts forward candidates for Parliament in a number of constituencies, forty-one of whom were elected at the last general election.

The organisation of the employers is at present on the same lines as that of the miners, but differs in its origin in that the central body was formed first (1854), the District Associations not being definitely established till 20 years or more later, though informal associations of employers had existed at earlier dates for the purpose of negotiating with the workers. Originally, the Mining Association was open to individual owners as well as to organised District Associations, but since 1920 membership has been restricted to the latter. The original purpose of the Association was mainly to consider and take action on proposed legislation. Questions of wages and conditions of employment, except in so far as they formed the subject of legislative proposals, did not come within the purview of the Association, and the relations between employers and employed in each of the coalfields were dealt with by joint bodies or committees, consisting of representatives of the District organisations concerned. During the war, however, the Mining Association undertook the duty of acting as the central body for the owners in all questions of a national character, including questions of wages, and this is now its principal function. The present membership of the Association represents approximately 94 per cent. of the total output of the country.

The machinery for negotiation and for dealing with disputes varies with the nature of the matter requiring settlement. Questions affecting an individual colliery are dealt with between the men or their representatives and the colliery management. There are no hard and fast rules of procedure common to all mines and all districts, but generally speaking, the men have always some recognised means of access to the management, e.g. through their local representative with a deputation. If no settlement results, the miners' agent for the district will usually be called in, and if agreement is still impossible, the general practice is that the dispute can be referred by either side to the District Conciliation Board. Conciliation Board agreements vary to some extent from district to district both in the

precision of their terms and in the rules laid down. It can, however, be said that in all cases there is at least a moral obligation, in default of mutual agreement, on the one hand not to strike and on the other hand not to alter conditions of employment (apart from matters of management), without seeking the intervention of the District Conciliation Board. These Boards consist of equal numbers of owners' and workmen's representatives. They usually appoint a small special Committee to investigate disputes and report. If settlement is not secured in this way, the matter in dispute is in some districts referable to an independent chairman; in other districts it is not. These conciliation agreements are influential in practically all districts, with the exception of Durham and perhaps Scotland (particularly Lanarkshire).

Disputes under the Minimum Wage Act are referable to a Statutory District body called the Joint District Minimum Wage Board, having an independent chairman appointed by the Board itself, or in default of agreement by the Board of Trade.

Questions which arise in a district about the working of the National Wages agreement are dealt with by a District Board, set up in accordance with that agreement. The principle on which the personnel is constituted is usually much the same for all the three Boards which have been mentioned.

There is no provision for any local or district question which is not settled by the district joint body or its independent chairman being referred to any national body. The only disputes upon which the two national bodies negotiate are questions affecting the industry as a whole, e.g. the National Wages Agreement as to the principles or rules by which district wages percentages are to be fixed. For the purposes of this agreement there is a Joint National Board with an independent chairman.

The Coal Mining Industry was in 1924 the subject of an Inquiry under Part II of the Industrial Courts Act, but as a general rule the industry is averse, as an industry, to making use of any of the means of conciliation or arbitration which have been provided by Statute in recent years for industry generally. The coal mining industry is highly organised for negotiation on both sides, and the machinery and the facilities for settling disputes—given the will to make use of them—are on the whole adequate.

#### *Iron and Steel Industries.*

The organisations of employers and workpeople in the Iron and Steel Industries cover a high proportion of those engaged in the industries. On the employers' side the two main organisations are the National Federation of Iron and Steel Manufacturers and the Iron and Steel Trades Employers' Association, which is a comparatively recent amalgamation of a number of bodies. In addition,

there are a number of local organisations covering special districts, and, also, associations of Iron Masters covering certain of the districts where the pig iron trade is carried on.

The principal organisation of the workpeople is the Iron and Steel Trades' Confederation, also a comparatively recent amalgamation of a number of Unions, which aims at including all class of workpeople employed in the Iron and Steel Trades. Maintenance craftsmen, however, such as builders, engineers and electricians, who hold an important position in blast furnaces and iron and steel works, are for the most part represented by the Craft Unions. The semi-skilled men and labourers are organised partly in the Confederation, and partly in craft and general labour Unions.

The machinery for conciliation, which has been agreed upon by the Iron and Steel Trades Employers' Association and the Iron and Steel Trades' Confederation, provides for conciliation in all disputes or differences, whether the question arising is peculiar to one workshop or to a particular district, or is a general question. The initial stage is conference between the works management and the workman or men concerned, with the assistance, if desired, of a representative of the union. Failing a settlement, a Neutral Committee is appointed to decide the issue, the Committee members being chosen from associated works, neutral to the works where the dispute exists. Should the Neutral Committee not be able to reach a settlement, then reference may be made either to a conference of representatives of the employers and of the workpeople or to arbitration. Provision is also made for local or district conferences on questions affecting more than one works, for national conferences on general questions, and for arbitration on all questions as a last resource.

In addition, various Conciliation and Arbitration Boards are in existence, and, although their scope and methods in different districts and different sections of the trade vary to a certain extent, they all run on somewhat similar lines. The methods of the Midland Iron and Steel Wages Board may be taken as an example. The objects of the Board are to "discuss and, if necessary, to arbitrate on wages or any other matters affecting the respective interests of the Employers or Operatives, and by conciliatory means to interpose its influence to prevent disputes, and put an end to any that may arise." The Board works partly through a Standing Committee to which certain functions are delegated. The Board consists of one employer and one operative representative at each works covered, and this arrangement is usual throughout the trade; that is to say, membership of a Conciliation Board is almost always by works and not by organisation. A Chairman is chosen from among the employers' section and a Vice-Chairman from the operatives' section. In addition, provision is made in the rules of the Board for the appointment of a neutral President, "a person of position not connected with the Iron Trade . . . whose duty it shall

be to attend the special meetings upon being requested by the Board to do so," and with powers of decision in cases in which the Standing Committee or the Board fail to agree. Under the rules of the Board, any dispute arising at a given works must be discussed at the works before being referred to the Board. Failing agreement, the matter is referred to the Standing Committee, which has full power to make a decision. If the Standing Committee cannot agree, the matter is referred to the President, whose decision is final and binding. One of the functions of this and other such bodies in the industry is to decide upon the periodical changes in wages taking place as a result of changes in the selling price of the product of the industry, and this matter is dealt with in the first instance by the Standing Committee, but, if necessary, by the whole Board; and again if the Board fail to agree the question is referred to the President. A general feature of the rules of these conciliating bodies is that no notices shall be presented by either side for the purpose of enforcing claims, and there shall be no stoppage of work in the form of strike or lock-out during the process of negotiation.

A special agreement with similar provisions exists between the Iron and Steel Trades Employers' Association and certain Associations of Iron Masters, and the Amalgamated Union of Building Trade Operatives and the Iron and Steel Trades' Confederation in regard to bricklayers and masons working at iron and steel works.

#### *Engineering.*

A high proportion of employers and workpeople in the engineering industry belong to organisations. On the employers' side, the Engineering and Allied Employers' National Federation is the main organisation. In Wales, however, a number of firms are members of the Welsh Engineers' and Founders' Association.

As regards the workpeople, the Amalgamated Engineering Union, formed in 1920 by the amalgamation of the Amalgamated Society of Engineers and some smaller unions, covers the skilled trades of fitters and turners, &c.; the National Union of Foundry Workers represents moulders, &c., employed in foundries, and the Federation of Engineering and Shipbuilding Trades includes a number of other unions catering for other skilled grades. The Boilermakers' Society, however, ceased to be a member of the Federation following its refusal to accept the national overtime agreement of March, 1923, negotiated in the shipbuilding industry by the Federation; and it is understood that the Electrical Trades Union and certain other societies have since withdrawn or given notice of withdrawal from the Federation. It is further understood that there has been a re-drafting of the Federation's constitution. The unskilled workpeople are organised in the Workers' Union and the National Union of General and Municipal Workers, recently formed by the

amalgamation of certain unskilled unions, some of which were affiliated to the Federation of Engineering and Shipbuilding Trades and to the National Federation of General Workers.

Negotiations are carried on between the Engineering and Allied Employers' National Federation and the above-mentioned workpeople's organisations, and also between the Welsh Engineers' and Founders' Association and these organisations. The negotiating machinery in the engineering industry is embodied in the "Provisions for avoiding disputes," which have been included in various agreements between the Engineering and Allied Employers' National Federation and the Unions concerned, and lastly in the agreement dated 13th June, 1922, between the Employers' Federation and the Amalgamated Engineering Union, and the agreement dated 20th May, 1922, between the Federation and the National Federation of General Workers, the Federation of Engineering and Shipbuilding Trades, and the National Union of Foundry Workers. Under the "Provisions for avoiding disputes," in the event of no settlement being arrived at between the firm and the men concerned, it is competent for either party to bring the question before a local conference to be held between the local association and the local representatives of the union, which may be arranged by application to the secretary of the local association or to the representative of the union, such local conference to be held within seven working days, unless otherwise mutually agreed upon, from the receipt of the application. Failing settlement of any question at a local conference, it is competent for either party to refer the matter to a central conference, which, if thought desirable, may make a joint recommendation to the constituent bodies. Until this procedure is carried out there is to be no stoppage of work, either of a partial or general character.

#### *Shipbuilding.*

A high proportion of employers and workpeople in the shipbuilding and ship-repairing industry are members of organisations. On the employers' side the main organisation is the Shipbuilding Employers' Federation. There are, however, a number of unfederated districts where employers are represented by a local association, e.g. the River Thames Dry Dock Proprietors' and Ship-repairers' Association, the Mersey Ship-repairers' Federation, and the Bristol Channel Engineers' and Ship-repairers' Employers' Association Limited.

The workpeople are organised in a number of skilled unions, affiliated to the Federation of Engineering and Shipbuilding Trades, the position of which has been dealt with in the paragraph on engineering above. There are a number of other large organisations outside this Federation, who have members employed in shipbuilding, e.g. the Amalgamated Engineering Union and the National Union of Foundry Workers. The unskilled workpeople are organised in the Workers' Union and the National Union of General and Municipal Workers. (See also under Engineering above.)

The negotiating machinery in the industry is based upon the agreement of 18th February, 1913, between the shipbuilding employers and a number of unions, whereby general fluctuations in wages are a matter for negotiation between the Federation and the unions, and questions other than general fluctuations are dealt with by procedure providing for a conference between employers and workpeople, and failing settlement, a local conference. Failing settlement by a local conference, it is competent for either party to refer the question to a central conference to be held between the Executive Board of the Federation and the representatives of the union or unions. In the event of failure to settle any question in central conference, either party desirous to have such question further considered shall, prior to any stoppage of work, refer the same for final settlement to a grand conference between the Federation and all the unions parties to the agreement. Negotiations are also carried on between the Associations not federated nationally and the unions.

#### *Electrical Industries.*

##### *(a) Electrical Cable-making.*

Negotiations in the industry have been conducted by the Joint Industrial Council, set up in 1919, which, from the outset, has been representative of the industry to a high degree. It has regulated wages and conditions of employment without any serious difficulties or disputes. Attention has also been given to such general questions as the alleviation of unemployment by expediting electrification schemes.

##### *(b) Electrical Contracting.*

There is a Joint Industrial Council covering the industry in England and Wales, but not in Scotland. Wages negotiations as regards England and Wales have been conducted between the Executives of the National Federated Electrical Association and the Electrical Trades Union, and, as regards Scotland, between the Scottish Electrical Contractors' Association and the Electrical Trades Union.

##### *(c) Electricity Supply.*

There are some 560 authorised electricity supply undertakings in Great Britain, 335 belonging to Local Authorities, and 225 to Companies or private persons. The company undertakings are members of organisations which co-operate with the representatives of the municipal undertakings in the work of the joint machinery described below. The workpeople belong to a number of craft and general labour unions. In addition, the Electrical Power Engineers' Association represents the technical staffs.

In this industry the "Whitley" structure is well developed. There are two Joint Industrial Councils, one of which covers the manual workers, and the other the technical staffs. The National Joint Industrial Council for the industry was constituted in May, 1919, and Great Britain has been divided into thirteen districts, in each of which a District Council has been formed, all of which bodies are at present functioning. The District Councils negotiate upon the wages and conditions of employment in their respective areas, their decisions being subject to ratification by the National Council, and there is some variation in the base rates fixed by them. The National Council has established a cost of living sliding scale which is being operated by the majority of District Councils. In the case of disagreement on a District Council, the matter may be referred to the National Council for settlement. There is no formal arrangement for dealing with disagreements between the authorities on the National Council. Questions at issue on District Councils not settled by the National body have been referred to the arbitration of the Industrial Court. In the case of a recent threat of a national stoppage of work in connection with an application for an increase in wages, representatives of the National Joint Council, after discussion with the Ministry of Labour, met as a Special Conciliation Committee, under an independent Chairman appointed by the Minister. Subsequently, on the recommendation of this Committee a Tribunal was constituted to examine and report upon the facts and to make recommendations to the National Council. It may be mentioned that the National Council has approved a model form of constitution for Works Committees.

A National Joint Board of Employers and Members of Staff, formed in December, 1919, deals with matters affecting the technical staffs. It consists of representatives appointed as to the employers' side by the same authorities (with one exception) as in the case of the Joint Industrial Council, and as to the staff side by the Electrical Power Engineers' Association. The Board, which meets once a month, has drawn up a schedule of salaries, and has formulated conditions of service for the technical engineers on the staff of the various undertakings in the United Kingdom. District Boards have been set up in twelve of the areas into which the country was divided by the Joint Industrial Council. The National Joint Board has approved a resolution providing for reference to arbitration under the Industrial Courts Act in all cases in which there has been a failure to agree as to the settlement of differences arising between the undertakings and their technical staffs in connection with the scheduled conditions.

#### *Cotton.*

The cotton industry of Lancashire and adjacent counties is well organised for the treatment of matters affecting industrial relations. The majority of the employers in the spinning section of the trade



are represented by the Federation of Master Cotton 'Spinners' Associations, Ltd., while the employers in the weaving section are organised in the Cotton Spinners' and Manufacturers' Association. These two bodies, each of which comprises a number of district associations, cover most of the employers in the industry.

On the Trade Union side the outstanding bodies are, in the spinning section, the Amalgamated Association of Operative Cotton Spinners and Twiners, and the Amalgamated Association of Card and Blowing Room Operatives; and, in the manufacturing section, the Amalgamated Weavers' Association with other Unions in the Northern Counties Textile Trades' Federation.

Arrangements based on the effective organisation of both parties have been entered into for the systematic consideration of differences arising in the industry, and these have proved of great value in maintaining satisfactory relations between employers and operatives. In the spinning section of the trade these arrangements arose out of the "Brooklands Agreement" which terminated the great spinning trade dispute of 1892-3, and which provided, *inter alia*, that no local Employers' Association or Trade Union should countenance, encourage or support any lock-out or strike until the matter had been submitted to and considered by a local Joint Committee, and, in the event of their failure to agree, by a Joint Committee of the Federated Association of Employers and the Operatives' Trade Unions. The "Brooklands Agreement," which was largely based on the joint arrangements already existing in the weaving section of the trade, was terminated in 1913, but agreements now exist providing that notices shall not be tendered until the matter in dispute has been considered by local and central Joint Committees of the Employers' and Operatives' Organisations.

While these standing arrangements for dealing with local and district differences are operating constantly to remove friction and avoid disputes, the largest issues, such as changes in wages or matters of importance affecting the whole industry (or the spinning or weaving section as a whole), are negotiated direct between the central authorities of the organisations concerned. There are no standing arrangements for arbitration in case of breakdown of such negotiations, and it is well understood by the parties that failure to arrive at a settlement may involve a general stoppage. But by the nature of the case differences of this order arise more rarely than local and district troubles; and the fact that the issues rest with the most responsible leaders on both sides, and the realisation of the serious consequences of failure to agree, are, of course, potent factors making for peace on such occasions.

The efficacy of this machinery of negotiation for dealing with the numerous questions which arise from day to day in the industry is well attested. Mr. John Smethurst, late Secretary of the Master Spinners' Federation, in an interview reported in the "Manchester

Guardian" of 27th April, 1923, was able to say that, while the number of disputes affecting that Federation would aggregate in any one year in all the districts to between 600 and 700, not more than twenty of these ever reached the point of having to be discussed between the Central Committees in Manchester. Mr. Smethurst said, "It is remarkable that out of these hundreds of disputes not more than an average of two or three per year have resulted in a strike at individual mills; that is a record which I think it would be difficult for any other industry to equal."

It should be added that the sphere of co-operation between employers and operatives extends beyond the joint consideration of matters immediately affecting relations between employers and employed. The trade unions in the industry with those representing the dyers, bleachers, &c., are combined in the United Textile Factory Workers' Association, a body which deals with the wider interests of the operatives, more particularly as affected by legislation; and through this organisation the workpeople have acted in conjunction with the employers in various matters of general concern to the industry.

#### *Woollen and Worsted Industry.*

The employers in the main centres of the trade in England and Wales are represented by the British Wool Federation, the Wool Combing Employers' Federation, the Federation of Master Wool Carbonisers, the Worsted Spinners' Federation, the Woollen and Worsted Trades' Federation, the West of England Wool and Textile Association and the West Yorkshire Manufacturers' Association. The workpeople are represented by the National Association of Unions in the Textile Trade, and, to some extent, in the general labour unions.

The National Wool and Allied Textile Industrial Council was set up in 1919, and covers all processes of the trade from the handling of raw wool to the finished product. District Councils have been formed for the Northern Counties, Wales, and the West of England. The rules of the Council provide machinery for the prevention and settlement of disputes arising in the works of any firm which is a member of an Employers' Association affiliated to it. These rules, however, do not cover disputes of a more general character. A dispute is notified to the Secretaries of the Council after every effort has been made by the parties concerned to settle the difference, and the constitution provides that the Secretaries, after consultation with the Emergency Committee, shall call together the Arbitration Court set up by the Council to hear evidence of the parties to the difference and to issue its award. It is obligatory on both employer and workmen to observe these awards. In the event of the Court failing to reach a unanimous decision, the matter is referred to an Umpire whose decision is final.

The District Councils conduct their own negotiations on wages, their decisions being subject to confirmation by the National Council. From this it follows that the most formidable questions (i.e. those relating to wages, &c., in the West Riding of Yorkshire), fall to be dealt with in practice by the Northern Counties District Council, and, from the point of view of industrial relations, this is the joint body in the industry which compels the closest attention. This Council annually reviews wages, which now consist of base rates with different percentage bonus additions for time and piece workers.

The Scottish Woollen and Worsted Joint Industrial Council has ceased to function since November, 1920, and there appears to be little demand for its revival. The Scottish Woollen Trade Employers' Association has, however, negotiated wages agreements jointly with the National Union of Textile Workers, the Workers' Union and the National Union of General and Municipal Workers.

#### *Heavy Chemical Industry.*

The employers are organised in the Chemical Employers' Federation and the Scottish Committee of Chemical Manufacturers, and the workpeople in a number of trade unions.

The negotiating machinery in this trade is provided by the National Joint Industrial Council, formed in 1918. The Council took steps to set up District Councils, but the main burden of negotiation in the trade has fallen upon the national body, and it is owing, no doubt, to this fact that the District Councils do not appear to have met since 1922. The constitution of the National Council does not include specific provision for arbitration in the event of failure to settle disputes by direct negotiation between the parties within the industry, but arrangements were made at an early date in the history of the Council for the constitution of an Emergency Committee to be available for speedy action, if desirable, in cases of dispute. General wages questions are dealt with by the Council, and recourse has been had in certain cases of disagreement to arbitration by the Industrial Court.

The Scottish trade is not represented on the Joint Industrial Council, and in Scotland negotiations have been conducted direct between the Scottish Committee of Chemical Manufacturers and the unions concerned.

#### *Clothing Trades.*

The clothing trade as a whole does not show a high development of organisation of either employers or workpeople for the discussion of matters affecting industrial relations, although in some sections, and particularly in the larger towns, the employers generally belong to associations, and the workpeople are fairly well organised in trade unions. Generally speaking, wage questions in the clothing

trades are dealt with on Trade Boards, which cover seven sections of the clothing trades.\* In each of these seven sections, employers' associations exist and are represented on the employers' side of the Trade Boards, while a number of trade unions having members employed in the trades are also represented upon the Boards. The exception to this among the clothing trades is the boot and shoe manufacturing industry, whose negotiating machinery is sufficiently important to merit separate description.

*Boot and Shoe Manufacture.*

The Manufacturers' Associations are combined in the Federated Associations of Boot and Shoe Manufacturers, and the workpeople are organised in the National Union of Boot and Shoe Operatives.

The conciliation machinery operating between these organisations has been in existence substantially in its present form for the past 30 years. Following a dispute in 1895, an agreement was reached between the Employers' Federation and the Union, providing *inter alia* for the Local Boards of Arbitration and Conciliation in the trade, which were composed of equal numbers of representatives of employers and workmen in the district, to be reconstituted and to have full powers to settle all questions submitted to them concerning wages, hours of labour and conditions of employment, subject to certain restrictive regulations. It provided that no strike or lock-out should be entered into by either party represented on the Boards thus set up. Under the agreement provision was made for the appointment of an Umpire to determine disputed points arising out of the agreement. Provision was made for monetary penalties in the event of either party not complying with this agreement, each side making a deposit of £1,000. Up to 1920, i.e. over a period of 25 years, there were 13 cases in which fines were imposed in accordance with the terms of the agreement. The fines amounted in all to £838 13s. 4d., the largest individual fine being £300. The Umpire is empowered to determine whether there has been a breach of an agreement and the amount to be forfeited by the guilty party.

Since 1895, conferences of the parties under a neutral chairman have been held from time to time at which questions relating to wages, hours, overtime and conditions of service have been dealt with, and agreements entered into. At a conference held in 1914 a Standing Committee of the conference, consisting of three representatives of each of the parties, was constituted to deal with all matters arising out of the National Agreements, including any disputes that may arise as to the interpretation of such agreements. At the National Conference which was held in September, 1924,

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\* The seven sections are Retail Bespoke Tailoring, Ready-made and Wholesale Bespoke Tailoring, the Wholesale Mantle and Costume Trade, the Dressmaking and Women's Light Clothing Trade, Corset Making, Shirt-making, and the Hat, Cap and Millinery Trade.

under the chairmanship of an Independent Chairman appointed by the Minister of Labour, the parties drew up an agreement based upon the agreements of preceding years. This agreement dealt with wages, including a cost of living sliding scale, holidays, the regulation of boy and the classification of female labour, overtime, strikes and lock-outs, including the continuance of the monetary penalty referred to above, and other matters.

There is also a National Joint Industrial Council which was constituted in May, 1919, composed of representatives of the Federated Associations of Employers and the National Union of Boot and Shoe Operatives. On account of the well established machinery already in existence, this Council does not concern itself with questions relating to wages, hours, overtime and conditions of employment.

#### *Railways.*

##### *Traffic Grades.*

Following the enactment of the Railways Act, 1921, the main railways of Great Britain were amalgamated into four large groups. For the purpose of general questions affecting labour, co-ordination between the four groups is effected through a Committee of the General Managers, known as the Railways Staff Conference. The employees on the railways in the traffic grades are organised in three unions, namely, the National Union of Railwaymen, the Associated Society of Locomotive Engineers and Firemen, and the Railway Clerks' Association. The Associated Society of Locomotive Engineers and Firemen caters for locomotive drivers and firemen, and the Railway Clerks' Association caters for clerks and supervisory grades, but, on the other hand, the National Union of Railwaymen admits to membership any man employed in whatever capacity on the railways. On labour questions affecting one Railway Company only, negotiations are conducted between that Company and the Railway Unions. On general questions affecting all the Companies, negotiations are conducted between the Railways Staff Conference and the Unions.

Negotiations on all questions relating to rates of pay, hours of duty and conditions of service of the traffic grades are conducted between the Railway Companies and the three Railway Unions in the first instance. In default of agreement, such questions must be referred, until otherwise determined by twelve months' notice on either side, to the Central Wages Board, or, on appeal, to the National Wages Board in accordance with the provisions of Part IV of the Railways Act, 1921.

The Central Wages Board, as reconstituted by the Act, is composed of eight representatives of the Railway Companies and eight representatives of the three Railway Trade Unions, four from the National Union of Railwaymen, two from the Associated Society of Locomotive Engineers and Firemen, and two from the Railway Clerks' Association.

The National Wages Board, as reconstituted by the Act, is composed of six representatives of the Railway Companies, six representatives of the three Railway Trade Unions (two from each Union), four representatives of the users of railways, and an independent chairman nominated by the Minister of Labour. The four representatives of the users of railways are nominated respectively by the General Council of the Trades Union Congress, the Co-operative Union, the Association of British Chambers of Commerce and the Federation of British Industries.

Subsequently the Railway Companies and the Unions agreed upon a detailed scheme of working for the reconstituted National and Central Wages Boards, and for establishing Railway Joint Councils in accordance with the provisions of the Act. In this scheme it is provided that the National Wages Board shall announce to the parties concerned the result of their investigations and consideration on any matters referred to it within 28 days from the date of reference by the Railway Company or Trade Union affected following failure to reach agreement on the Central Wages Board, and it is agreed that no withdrawal of labour shall take place before the expiration of the 28 days.

The scheme provides for the establishment of a Railway Council for each railway, to be composed of not more than ten representatives of the railway company and not more than ten representatives of the employees, i.e. two members from each Sectional Railway Council (see below). A Railway Council can deal with any of the subjects which it is open to a Sectional Council to deal with, and which are of common interest to the staff in two or more sections, and any subjects referred to it by a Sectional Council, provided that before any subject is so considered the Sectional Councils concerned shall be given the opportunity of considering it.

The scheme further provides that not more than five Sectional Railway Councils shall be established on each railway, to each of which not more than 12 representatives of the employees shall be elected, and not more than the same number of representatives shall be appointed by the Railway Company concerned. The functions of the Sectional Railway Councils are to deal with any of the under-mentioned subjects affecting the employees represented thereon :—

(a) The local application of national agreements so far as the individual railway is concerned, apart from subjects that may be submitted directly to the Central Wages Board.

(b) Suggestions as to operating, working and kindred subjects.

(c) Other matters in which a company and their employees are mutually interested, e.g. co-operation with a view to securing increased business, greater efficiency and economy; well-being of the staff; general principles governing recruitment and tenure of service.

(d) Subjects remitted by the Railway Council to a Sectional Council.

For the purpose of setting up Sectional Councils, the various grades of employees on each railway are grouped in not more than five sections, and a Sectional Council is formed for each of these groups of grades.

At any station or depot at which the number of regular employees in a department or group of grades exceeds 75, the scheme provides that a Local Departmental Committee, consisting of not more than four elected representatives of the employees in that department or group of grades, and not more than four representatives of the railway company concerned, shall be set up.

The matters to be considered by a Local Committee include (a) Suggestions for the satisfactory arrangement of working hours, &c. (b) Questions of physical welfare. (c) Holiday arrangements. (d) Publicity in regard to rules, &c. (e) Suggestions for improvements in method of organisation of work and labour saving appliances. (f) Investigation of circumstances tending to reduce efficiency or satisfactory working. (g) Correct loading of traffic.

It is provided that the Railway Councils, Sectional Councils and Local Departmental Committees shall not introduce any arrangements inconsistent with the decisions of the National and Central Wages Boards.

Steps were taken to set up the Sectional Councils and Local Committees shortly after the Act was passed in August, 1921, but the whole of the Councils were not established until after the grouping of the railways was completed on 1st January, 1923. Since then there has been a very complete system of joint machinery existing, and a number of cases have been dealt with by the reconstituted Central and National Wages Boards.

It should be mentioned that Part IV of the Railways Act was inserted by agreement, and at the request, of the Railway Companies and the Unions, and that, therefore, in effect, the machinery set up by that Act is of a voluntary nature although given statutory force.

#### *Railway Shopmen.*

The class known generally as "railway shopmen" may be described broadly as those manual workers employed by Railway Companies who are not employed immediately or directly in the working of traffic. They are engaged in the railway carriage and wagon departments, running sheds, mechanical and civil engineer departments, signal and telegraph departments, and docks and marine departments of the companies. The shopmen are organised in a number of craft unions and general workers' unions, and also in the National Union of Railwaymen. The main craft organisations concerned are the Amalgamated Engineering Union, the Boilermakers' Society, the National Union of Foundry Workers, the Federation of Engineering and Shipbuilding Trades, the Electrical

Trades' Union and the National Federation of Building Trades' Operatives. The general workers' unions concerned are the National Union of General and Municipal Workers and the Workers' Union.

Negotiations in regard to rates of wages, hours of labour, and conditions of employment of railway shopmen are conducted between the Railway Companies and the various Unions having members in the railway shops. As in the case of the traffic grades, negotiations on questions affecting one Railway Company only are conducted between that Company and the Unions concerned, and on general questions negotiations are conducted between the Railways Staff Conference and the Unions concerned. There is no conciliation machinery existing for railway shopmen. Attempts have been made from time to time to establish such machinery, but so far without success.

#### *Shipping.*

The organisations of employers and workpeople in the shipping industry cover a high proportion of those engaged in the industry. On the employers' side the main organisation is the Shipping Federation, to which most shipowners belong. It was founded in 1890 for the purpose of combined action by shipowners in labour disputes, and has since dealt with all questions affecting shipowners in their capacity as employers of labour. Certain shipowners at Liverpool, who do not belong to the Federation, are combined for labour questions in the Employers' Association of the Port of Liverpool.

On the seamen's side, the masters and navigating officers are organised in the Imperial Merchant Service Guild and the Mercantile Marine Service Association, the engineer officers in the Marine Engineers' Union and the Amalgamated Engineering Union, the wireless operators in the Association of Cable and Wireless Telegraphists, and the sailors, firemen and stewards in the National Sailors' and Firemen's Union and the Amalgamated Marine Workers' Union. Certain craftsmen, such as carpenters, electricians, &c., belong to their own craft unions. The employees' associations mentioned above (excluding the Amalgamated Engineering Union and the Amalgamated Marine Workers' Union) together with the Boilermakers' and Iron and Steel Shipbuilders' Association, the United Operative Plumbers' and Domestic Engineers' Association, the United Kingdom Pilots' Association and the Ship Constructors' and Shipwrights' Association, were until recently organised for common purposes relating to their sea-going members in the Seafarers' Joint Council, formed in March, 1918. During the last year however, the Associations representing the masters, navigating officers and engineer officers have seceded.

Owing to the nature of the seaman's calling, the conditions of his employment are more extensively regulated by Act of Parliament than is the case in other industries. Nevertheless



in this industry the "Whitley" structure is well developed. The Joint Industrial Council for the industry is known as the National Maritime Board. This was set up in June, 1917, under the control of the Ministry of Shipping, but the connection between the Board and the Government was severed in 1919, when the Board, as at present constituted, was set up. The objects of the Board are to prevent and adjust differences between shipowners and their employees; to establish, revise and maintain national standard rates of wages and approved conditions of employment, and to establish a single source of supply of sailors and firemen, jointly controlled by employers and employed. The Board consists of five Panels, each made up of twelve members of each side, dealing respectively with (1) masters, (2) navigating officers, (3) engineers, (4) sailors and firemen, and (5) the catering department. The employers' representatives on these Panels are elected by the Shipping Federation and the Employers' Association of the Port of Liverpool, but one seat is allocated to the Railway Staff Conference as representing the railway companies owning steamers, and one to the Admiralty as representing the naval auxiliary vessels, such as colliers and oilers. The seamen concerned are represented on their respective panels by the nominees of their respective unions. The exception is in the case of the sailors' and firemen's and the catering department Panels on which the Amalgamated Marine Workers' Union, who are not affiliated to the National Maritime Board, are not represented. One seat on the sailors' and firemen's Panel is allocated to the Ship Constructors' and Shipwrights' Association as representing sea-going carpenters. The five Panels sitting together constitute the full Board.

The Panels sit separately and independently to negotiate wages and other conditions of employment such as overtime, subsistence allowances, &c., on a national basis for the grade or grades which they represent. There are two chairmen, one elected by and from each side, who take the chair at alternate meetings. The chairman has no casting vote. No stoppage or lock-out is to take place or indemnity, strike pay, or assistance to be offered by either side in the event of a difference or dispute, until the question has been dealt with by the Port Consultants, District Panel, or, if necessary, the National Maritime Board. The functions of Port Consultants and District Panels are explained below. Questions on which the Panel do not agree can be referred by either side to the full Board, or to an independent person who must be a Barrister nominated for one year by the President of the Bar Council. His opinion or recommendation, however, is not binding and there is no provision for arbitration.

Each Panel (except the Masters' Panel) has power to appoint District Committees known as District Panels, which may be subdivided into three sections to deal with particular classes of vessels.

There are, for instance, in the case of the sailors and firemen, 22 such Panels in the United Kingdom and the Irish Free State. The District Panels appoint one or two representatives of each side of each Panel who are called "Port Consultants." It is the duty of the Port Consultants to prevent delay to vessels by endeavouring to settle any differences arising between masters and crews on the basis of such existing agreements as may have been concluded by the National Panel. Any question which cannot be settled by the Port Consultants is referred to the District Panel, and, if necessary, to the National Panel, but neither the District Panel nor the Port Consultants have power to alter, vary or amend any scale of wages or other conditions formulated by the Board.

The actual engagement and discharge of the crews of foreign going ships (that is, the signing of the agreement at the commencement of the voyage and the signing of the release at the end) takes place before the Superintendent of a Mercantile Marine Office, who is a Board of Trade official. The Superintendent has statutory power, under Section 137 (1) of the Merchant Shipping Act, 1894, to adjudicate on a dispute regarding wages on the application of either party if the amount in question is less than £5, but questions turning solely on the interpretation of National Maritime Board clauses would, as a rule, be referred to the Port Consultants for adjustment. The Superintendent is also required under Section 137 (2) of the Act to hear and determine any question, of whatever nature and whatever the amount in dispute, between a master or owner and any of his crew, where both parties agree in writing to submit it to him; and his award is conclusive.

Neither the Seafarers' Joint Council, as such, nor the Unions which form its membership are affiliated to the National Maritime Board, with the exception of the National Sailors' and Firemen's Union and the Ship Constructors' and Shipwrights' Association. Whenever questions arise on the National Maritime Board, as for instance that of a general reduction in wages, which affect members of the craft unions belonging to the Seafarers' Joint Council employed at sea, it has been customary for them up to the present, to receive *ad hoc* representation on the engineer officers' panel. The Electrical Trades Union have been represented in the same way.

The wages and conditions of employment of wireless operators are not dealt with by the National Maritime Board. The wages of wireless operators are, under agreement between the Radio Companies and the Shipowners, paid by the Radio Companies, and any question affecting their employment is negotiated direct between the Radio Companies and the Association of Cable and Wireless Telegraphists.

## MEMBERSHIP OF TRADE UNIONS, 1892 TO 1924.

[Furnished by the Ministry of Labour.]

The two preceding memoranda in this chapter make frequent reference to the development of organisations for the purpose of negotiating on questions of industrial relations. In this memorandum particulars are given relating to the membership of trade unions in Great Britain and Northern Ireland, based on information collected (i) by the Chief Registrar of Friendly Societies and by the Registrar of Friendly Societies for Northern Ireland, from trade unions registered under the Trade Union Acts, and (ii) by the Board of Trade, or, more recently, the Ministry of Labour, from unregistered trade unions. The particulars relate to all organisations of employees which are known to include among their functions that of negotiating with employers with the object of regulating the conditions of employment of their members. The subdivision of the total membership into male and female is not exact, as estimates have been made for some trade unions which are unable to state precisely the numbers of males and females comprised within their membership.

Certain further particulars as to the membership of trade unions, and also information as to federations of trade unions, and the numbers and membership of trades councils, are to be found in the "Ministry of Labour Gazette" for November, 1925.

*Numbers and Membership, 1892 to 1924.*

The following table shows the total number of trade unions known to have been in existence in Great Britain and Northern Ireland from 1892 to 1924, and their aggregate membership to the nearest thousand. The figures of membership include members in overseas branches and in Irish Free State branches of such unions, but wholly exclude unions having their head offices in the Irish Free State.

Year.	Number of Trade Unions at end of Year.	Membership at end of Year.			Percentage Inc. (+) or Dec. (-) on Total Membership of previous Year.
		Males.	Females.	Total.	
1892 ..	1,233			1,576	..
1893 ..	1,279			1,559	- 1.1
1894 ..	1,314	Not available			- 1.9
1895 ..	1,340			1,504	- 1.7
1896 ..	1,358	1,466	142	1,608	+ 7.0
1897 ..	1,353	1,584	147	1,731	+ 7.6
1898 ..	1,326	1,608	144	1,752	+ 1.2
1899 ..	1,325	1,761	150	1,911	+ 9.1

## NEGOTIATING MACHINERY.

Year.	Number of Trade Unions at end of Year.	Membership at end of Year.			Percentage Inc. (+) or Dec. (-) on Total Membership of previous Year.
		Males.	Females.	Total.	
		Thousands.	Thousands.	Thousands.	Per Cent.
1900 ..	1,323	1,868	154	2,022	+ 5·8
1901 ..	1,322	1,873	152	2,025	+ 0·1
1902 ..	1,297	1,857	156	2,013	- 0·6
1903 ..	1,285	1,838	156	1,994	- 1·0
1904 ..	1,256	1,802	165	1,967	- 1·3
1905 ..	1,244	1,817	180	1,997	+ 1·6
1906 ..	1,282	1,999	211	2,210	+10·7
1907 ..	1,283	2,263	250	2,513	+13·7
1908 ..	1,268	2,230	255	2,485	- 1·1
1909 ..	1,260	2,214	263	2,477	- 0·3
1910 ..	1,269	2,287	278	2,565	+ 3·5
1911 ..	1,290	2,804	335	3,139	+22·4
1912 ..	1,252	3,026	390	3,416	+ 8·8
1913 ..	1,269	3,702	433	4,135	+21·0
1914 ..	1,260	3,708	437	4,145	+ 0·3
1915 ..	1,229	3,868	491	4,359	+ 5·2
1916 ..	1,225	4,018	626	4,644	+ 6·5
1917 ..	1,241	4,621	878	5,499	+18·4
1918 ..	1,264	5,324	1,209	6,533	+18·8
1919 ..	1,360	6,600	1,326	7,926	+21·3
1920 ..	1,364	6,994	1,340	8,334	+ 5·1
1921 ..	1,251	5,618	1,004	6,622	-20·5
1922 ..	1,203	4,744	870	5,614	-15·2
1923 ..	1,161	4,597	813	5,410	- 3·6
1924 ..	1,155	4,720	811	5,531	+ 2·2

*Recent Amalgamations.*

The following figures show the extent to which the reduction in the total number of trade unions in recent years has been due to amalgamations :—

Year.	New Unions formed (other than by amalgamations).	Reductions due to		Net Increase (+) or Reduction (-).
		Dissolutions.	Amalgamations.	
1920 ..	119	33	82	+ 4
1921 ..	45	73	85	-113
1922 ..	28	40	36	- 48
1923 ..	16	42	16	- 42
1924 ..	26	18	14	- 6

*Analysis by Industries.*

The following table shows the number of trade unions and their membership at the end of 1897 and of 1924, divided into the main groups of unions catering for persons employed in various industries and services :—

Groups of Unions.	Number of Unions at end of		Membership.					
			Males.		Females.		Total.	
	1897.	1924.	1897.	1924.	1897.	1924.	1897.	1924.
Agriculture, Horticulture, etc.* ..	2	3	2,429	60,413	1	1,045	2,430	61,458
Mining and Quarrying .. ..	83	113	294,228	962,374	—	3,657	294,228	966,031
Pottery and Glass .. ..	42	17	13,235	17,809	407	12,720	13,642	30,529
Metal, Engineering and Ship- building :—*								
Iron, Steel, Tinplate, etc. Manufacture.	13	6	34,161	91,466	—	1,053	34,161	92,519
Engineering, Ironfounding, Ship- building and Other Metal Working	268	109	287,327	579,883	915	6,572	288,242	586,455
Textile :—								
Cotton .. ..	175	168	93,750	140,962	97,251	225,959	191,001	366,921
Woolen and Worsted .. ..	27	28	7,773	48,602	2,530	30,811	10,303	79,413
Linen and Jute .. ..	24	23	6,639	10,178	9,828	23,732	16,467	33,910
Hosiery .. ..	14	10	3,468	7,183	1,642	20,851	5,110	28,034
Bleaching, Dyeing, Finishing, &c.	37	28	17,349	56,692	420	16,773	17,769	73,465
Other Textiles .. ..	37	24	9,210	11,488	1,130	16,737	10,340	28,225
Leather (other than Boot and Shoe)	34	20	7,953	9,332	—	1,265	7,953	10,597
Clothing :—								
Boot and Shoe .. ..	15	9	39,596	60,998	1,550	27,195	41,146	88,193
Tailoring and Other Clothing ..	33	21	30,051	31,785	3,388	45,133	33,439	76,918
Food, Drink and Tobacco .. ..	21	9	11,662	23,538	2,031	4,113	13,693	27,651
Woodworking and Furnishing :—								
Furnishing .. ..	19	8	15,915	28,368	148	3,600	16,063	31,968
Coachbuilding .. ..	11	3	8,978	31,929	—	—	8,978	31,929
Other .. ..	68	21	13,303	30,014	—	469	13,303	30,483
Paper, Printing, &c. .. ..	46	24	51,486	136,554	753	50,533	52,239	187,087

\* The figures are exclusive of the membership of General Labour Unions, for which see "General Labour."

Groups of Unions.	Number of Unions at end of		Membership.					
			Males.		Females.		Total.	
	1897.	1924.	1897.	1924.	1897.	1924.	1897.	1924.
Building, Decorating, Contracting, &c. :—								
Bricklayers and Masons ..	13	4	66,151	65,071	—	—	66,151	65,071
Carpenters and Joiners ..	5	1	68,369	112,050	—	—	68,369	112,050
Painters and Decorators ..	28	7	19,001	53,746	—	—	19,001	53,746
Builders' Labourers* ..	56	6	27,918	57,530	—	—	27,918	57,530
Other .. .. .	31	30	28,391	46,937	—	9	28,391	46,946
Transport :—								
Railway Service .. ..	8	9	103,179	501,986	—	4,868	103,179	506,854
Seamen .. .. .	23	12	38,563	91,594	—	266	38,563	91,860
Other (Road Transport, Dock Labour, &c.)	39	23	62,233	413,332	—	12,302	62,233	425,634
Commerce, Distribution and Finance :—†								
Shop Assistants, Clerks, Warehouse Workers, &c. :	6	19	5,820	114,604	430	42,128	6,250	156,732
Banking and Insurance ..	5	19	4,650	72,724	—	5,373	4,650	78,097
National and Local Government††	68	272	60,431	260,067	3,048	58,698	63,479	318,765
Teaching .. .. .	6	17	24,528	62,122	20,791	132,824	45,319	194,946
Entertainments and Sport ..	3	8	5,314	27,008	7	6,960	5,321	33,968
Miscellaneous .. .. .	49	64	17,247	39,275	324	6,677	17,571	45,952
General Labour** .. .. .	44	20	103,100	462,209	615	48,997	103,715	511,206
Totals .. .. .	1,353	1,155	1,583,408	4,719,823	147,209	811,320	1,730,617	5,531,143

\* The figures are exclusive of the membership of General Labour Unions, for which see "General Labour."

† The figures are exclusive of the membership of Unions confined to Government, law, railway or shipping clerks, which are included under other groups.

†† The figures exclude Teachers', Tramway Workers' and General Labour Unions, for which see "Teaching," "Transport," and "General Labour."

\*\* Including General Enginemen.

## TRADE BOARDS.

[Furnished by the Ministry of Labour.]

*Historical Note.*

*Trade Boards Act, 1909.*—During the years 1885–1909 much public attention was directed to the conditions of workers in certain trades, in which it was alleged that “sweated” conditions prevailed, particularly the chain trade at Cradley Heath, and the box-making trade and certain sections of the clothing trades. The report of the Select Committee of the House of Lords on the sweating system, presided over by Lord Dunraven, was issued in 1890, and was followed by the introduction of various private Bills, notably Sir Charles Dilke’s “Sweated Industries Bill;” and authoritative information on the subject became available towards the end of the period through the Board of Trade Inquiry into Earnings and Hours in 1906. In 1906 the Anti-Sweating League was formed to press for legislation for the prevention of sweating. In 1907 and 1908, Select Committees of the House of Commons on Home-work were set up. The Committee of 1908 came to the conclusion that “sweating” prevailed extensively, not only among home-workers (with whom the Committee were directly concerned), but also among factory workers in trades in which home-work was prevalent, and they were convinced that only legislation could remedy this state of things. They recommended the establishment of “wages boards” immediately in tailoring, the making of shirts, underclothing and baby linen, and the finishing processes of machine-made lace, and they proposed that the Home Secretary should be empowered to establish wages boards, after enquiry, in any other trade.

The Trade Boards Act of 1909 in the main followed the lines of this Report, though it was not confined to home-workers. In framing the Bill, the Board of Trade had before them, besides the results of the Inquiry into Earnings and Hours referred to above, the experience of certain of the Dominions in dealing with the same problem. The conciliation and arbitration system of New Zealand dates from 1891, and the Wages Boards of Victoria, which present a closer parallel to the machinery actually adopted in this country, date from 1896. An enquiry into the operation of the legislation in Australia and New Zealand was conducted in 1907 by the late Mr. Ernest Aves for the Home Office.

The most prominent features of the Trade Boards Act of 1909 are three. In the first place, minimum rates of wages are fixed trade by trade. Secondly, the power of fixing such rates is entrusted, not to a Government Department or to a judicial or quasi-judicial body, but to a joint board, composed of equal numbers of representatives of employers and workers in the trade concerned, with the addition of a few independent “appointed members.” In the third place, the rates fixed by a Trade Board become, when

confirmed by a Minister of the Crown, enforceable by either civil or criminal proceedings, and are enforced at the expense of the Government through a body of inspectors.\*

Four trades were included in the Schedule to the Act of 1909, and power was given to increase the number by Provisional Order. Under this power, four more trades were added in the next few years, so that by 1915 the Act covered eight trades, in which approximately half a million workers were employed. (See list on pp. 470-1.)

*Developments during the War.*—During the war the Trade Boards were temporarily superseded for practical purposes by the wages orders of the Ministry of Munitions. It was anticipated, however, that Trade Boards would play an important part in facilitating the industrial readjustments which would follow the conclusion of hostilities. In March, 1917, the Reconstruction Committee issued a memorandum on the regulation of women's wages after the war, in which they anticipated that the conditions at or soon after the close of the war would be likely to cause a sudden and considerable fall in the level of remuneration in semi-skilled and unskilled occupations, and they recommended the use of Trade Board machinery in order to protect the wages of women workers.

In the same year the Committee on Relations between Employers and Employed (the Whitley Committee) recommended, as a means of securing industrial harmony, Joint Standing Industrial Councils for the well organised trades, and Trade Boards for the less organised trades, pending the development in these trades of such a degree of organisation as would justify the establishment of a National or District Industrial Council. The Committee, therefore, advised that the Trade Boards "in addition to their original purpose of securing the establishment of a minimum standard of wages in certain unorganised industries . . . . should be regarded as a means of supplying a regular machinery in those industries for negotiation and decision on certain groups of questions dealt with in other circumstances by collective bargaining between employers' organisations and trade unions." The Committee also advised that the functions of Trade Boards should be enlarged so as "to deal not only with minimum rates of wages, but with hours of labour and questions cognate to wages and hours," and "to initiate and conduct enquiries on all matters affecting the industry."

*Trade Boards Act, 1918.*—In the following year the amending Act of 1918 was passed. The general structure of the earlier Act remained unchanged, and the amendments were mainly directed to facilitating the formation of fresh Trade Boards and to improvements in the machinery suggested by experience.

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\* See p. 291.



In the first place, the description of the class of trade to which the Acts could be applied was altered. The condition set out in the Act of 1909 was that the Board of Trade should be satisfied that the rate of wages prevailing in any branch of the trade was "*exceptionally low* as compared with that in other employments." (Section 1(2).) By the Act of 1918, the Minister of Labour (to whom the administration of the Trade Boards Act had been transferred in 1917 is empowered to establish Trade Boards in any trade in which he is of opinion that no adequate machinery exists for the effective regulation of wages throughout the trade, and that accordingly, having regard to the rates of wages prevailing in the trade or any part of the trade, it is expedient that a Trade Board should be formed. Trade Boards were not given the wider powers suggested by the Whitley Committee, but a clause was inserted empowering them to make a recommendation to any Government Department with reference to the industrial conditions of the trade.

The Act came into operation on the 1st October, 1918. In 1919 the Government accepted the recommendation of the National Joint Committee of the National Industrial Conference of that year that "Trade Boards should be established forthwith in the various less organised trades where they do not already exist." By November, 1921, Trade Boards were set up in 28 further trades. At the present time there are 35 trades in Great Britain (see list on pp. 470-1) in which Trade Boards exist (the Linen and Cotton Embroidery trade to which the Acts were applied in 1916 is exclusively Irish), and the number of workpeople employed in these trades is approximately 1½ million. Trade Boards have been set up in no further trades since November, 1921.

*Lord Cave's Committee of Inquiry.*—In 1921, as a result of the criticisms of the Trade Boards Acts, the Government set up a Committee under the Chairmanship of the Rt. Hon. Viscount Cave. The Committee presented a unanimous Report\* in 1922 which recognised the need for the legal prevention of sweating, and expressed the opinion that the Trade Boards Acts provided suitable machinery for this purpose. The Committee also recognised that the working of the Trade Board system had had definitely beneficial results. At the same time they reached the conclusion that the rate-fixing policy of certain Boards had been ill-considered, and that there were defects in the system which required to be remedied. The major defects which they saw were—

(a) the failure on the part of certain Boards to recognise that their primary function was to protect workers against sweating;

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\* Command Paper 1645/1922.

(b) a tendency on the part of certain Boards to ignore local needs and conditions, and to fix rates on a national basis in cases in which a differentiation by districts, common in industries outside the Trade Boards system, would have been more appropriate ;

(c) a want of elasticity in the working of the system, more particularly in the machinery for adapting rates quickly to rapidly changing industrial conditions.

To remedy the first defect, the Committee recommended that a clear distinction should be drawn between rates for the protection of juveniles and of the lowest grades of adult male and female workers, and rates for the higher grades of workers. They suggested that, while rates in the former category should continue to be fixed, as previously, by a bare majority if necessary, and when fixed and confirmed by the Minister should be enforceable by the Criminal Law, rates in the second category should only be fixed by substantial agreement between employers and workers, and when fixed should be enforceable by civil action only. In this connection, also, the Committee recommended that the conditions precedent to the establishment of a Trade Board should be more explicitly stated than in the present Acts, and that new Boards should only be set up for trades in which not only was there no effective machinery for the regulation of wages, but in which also wages were unduly low as compared with wages in other employments, and then only after a public enquiry had been held into the matter.

To remedy the second defect, the Committee recommended the establishment of autonomous District Boards in such trades as the retail Making-up and Distributive Trades ; the conferment on the Minister of power to set up District Trade Committees when a Board had failed to set up such machinery ; and an enlargement of the powers of District Committees.

To remedy the third defect, the Committee made a number of recommendations, the most important of which were directed towards the reduction of the time required for carrying through variations in rates.

*Developments subsequent to Cave Report.*—To give effect to their recommendations, the Committee suggested that the existing Acts should be repealed and a consolidating Act passed. The Government decided to adopt the recommendations of the Committee, and to put into force forthwith in the course of administration such recommendations as could be brought into operation within the limits of the existing Statutes. This policy was announced in a Parliamentary White Paper (Cmd. 1712), issued on 6th July, 1922 ; but, while it was possible to carry through some small changes directed towards the speeding up of procedure, it was impossible, as

far as the rate-fixing powers of Boards were concerned, to put into force under the existing law the Committee's recommendations as a whole. In 1923 a Bill, consolidating the Acts of 1909 and 1918, and embodying substantially all the amendments recommended by the Cave Committee, was introduced by the Government into the House of Commons, but proceeded no further. Since that date no steps towards fresh legislation have been taken.

#### *Enforcement of Trade Board Rates.*

The enforcement of the Trade Boards Acts is carried out by a special staff of inspectors, appointed by the Ministry of Labour, who in June, 1925, numbered fifty-nine. The Acts provide penalties for employers who fail to pay the minimum rates or commit other offences (e.g. fail to post notices or to keep records); in addition, a worker who has been underpaid (or in certain circumstances an inspector on his behalf) can take civil proceedings for the recovery of the arrears of wages.

During the year 1924, 5,076 firms employing 88,706 workers were inspected, frequently as the result of the receipt of complaint. 5,638 workers, employed by 1,546 firms, were found to be underpaid; in addition, 1,210 firms had not posted notices, 1,307 firms did not keep proper wages records, and 2,814 did not keep proper time records. Legal proceedings were taken in 20 cases, all of which were successful. Of these, 19 were criminal proceedings for breaches of the law—including, in all cases except two, payment of wages at less than the Trade Board minimum rates—and one was a civil action for the recovery of arrears of wages.

#### *Influence on Disputes and Stoppages.*

The Whitley Committee in 1917 recommended that the powers of Trade Boards should be enlarged and that they should be definitely equipped to deal with industrial unrest in the trades with which they deal. While it is true that effect was not given to this recommendation in the Act of 1918, the Government during the years 1919 and 1920 extended the application of the Trade Boards Acts, largely because, in their opinion, the existence of Trade Boards would contribute to the harmonious settlement of industrial differences. It is indeed clear that the fact that a Trade Board is in operation must have an important influence on the relations between employers and workpeople in a trade. In the first place, a body of badly paid workers find that the Trade Board will secure them a reasonable minimum rate of wages. While strikes on a large scale are beyond the capacity of such workers, sporadic outbursts, which in the aggregate may not be negligible, are likely to occur among them,

and the existence of a Trade Board tends to reduce or even extinguish the likelihood of such outbursts. In the second place, there is in most or all of the Trade Board trades a nucleus of organised workers, though the percentage of organised workers over all these trades probably does not exceed 30 per cent. Such a nucleus may consist of male workers, as in the Birmingham small metal-wares trades; or of workers in a particular area, as in London in the milk distributive trade; or, again, of workers in a particular section of the trade, as in the cocoa and chocolate section of the confectionary trade. The leaders of these organised sections have a place upon the Trade Board and are brought regularly into touch with the employers in the trade. The Trade Board fixes, often by agreement between representatives of employers and workers, minimum rates of wages, and in a number of cases these rates are those which the organised, as well as the unorganised, sections of the trade actually receive. In cases in which an agreement between employers and workers is not reached, the workers' representatives will have had a full opportunity to state their case and to hear the arguments advanced by the employers. It is reasonable to suppose that the organised workers will in such cases be less likely to seek to raise wages by industrial action than in a case where a full discussion with the employers has not taken place. Further, in certain cases the organised section of a Trade Board trade has been able to secure, independently of the Trade Board, higher rates of wages than those fixed by the Trade Board. Here the contact between representatives of employers and workers, which the existence of the Trade Board ensures, has been found to conduce to the amicable settlement of differences.

#### *Trade Board Rates.*

Table 13 on pp. 470-1 shows the lowest Trade Board rate for each trade on 1st June, 1925. In the case of women, these rates determine the remuneration of the great majority; the women who are entitled by skill or experience to a higher Trade Board rate or who have obtained by collective bargaining a rate above the statutory minimum are few. In the case of men, the proportion of those who are paid at a higher rate than that shown in the table is greater. Many Trade Boards have fixed for men a scale of rates covering each grade, and in these cases the lowest Trade Board rate applies only to the unskilled labourer. In addition, the nucleus of craftsmen in a Trade Board trade has often obtained either nationally or in particular districts a standard rate higher than the statutory minimum.

The general effect of Trade Board rates has naturally been a levelling up of the wages of the lowest paid workers in the trade; for instance, it was reported that the first rates fixed by the Chain Trade Board in 1910 caused an increase in the wages of the majority of the workers; and it was estimated that the first rates fixed by

the Tailoring Trade Board in the year 1912 caused an increase in a considerable number of districts. It is, however, impossible, in unorganised trades such as those to which the Trade Boards Acts are applied, to obtain statistical information as to the extent to which the minimum rates have caused an increase in remuneration.

The machinery of the Trade Boards Acts—the representative nature of the Boards, the advertisement of proposed rates throughout the trade, the power of the Minister of Labour to refer rates back for reconsideration—appears to have secured that the rates fixed are generally acceptable to the trades affected. It is true that in a period during which industrial conditions fluctuate rapidly there are complaints that the rates cannot under the statutory procedure be varied quickly enough, and when the great depression of trade began in 1920, complaints by employers against the operation of the rates were general though by no means universal. The Cave Committee found that in a few cases these complaints were well founded; in expressing this opinion they clearly had in view the retail section of the dressmaking and hat, cap and millinery trades and the retail bespoke tailoring trade. In all three trades the problems were similar. They were widely distributed over the country; the type of establishment varied from the high class West End firm to the small shop in a back street or a village doing a working-class trade; each was suffering increasingly from the competition of the ready-made article. In addition, the retail dressmaking and retail millinery trades had been accustomed for many years to employ juvenile learners at very low wages and even without wages at all. The Dressmaking and Hat, Cap and Millinery Trade Boards have made considerable alterations in their rates since then, and the volume of complaint has greatly diminished; notwithstanding these reductions, the small dressmakers and milliners in the country and in poor industrial districts still find difficulty in adapting themselves to present-day conditions. In the retail bespoke tailoring trade the position is much the same, but in this trade there is a further difficulty in the way of the effective operation of the rates. Owing to the system of payment of male workers generally adopted in the trade, it has proved impossible to enforce Trade Board rates satisfactorily until general minimum piece rates are fixed, and the Trade Board has not yet been able to do this. It was largely because of this difficulty that the Board was recently dissolved in order that it might be replaced by separate Boards for England and Wales and for Scotland, respectively.

Generally, it may be said that there is little difficulty in securing compliance among the larger employers and that the great majority of workers employed in Trade Board trades receive at least the minimum. Among the smaller employers, compliance is certainly deficient, but this deficiency is less serious as it affects a comparatively small number of workers.

## JOINT INDUSTRIAL COUNCILS.

[Furnished by the Ministry of Labour.]

In October, 1916, a Committee was appointed with the Right Hon. J. H. Whitley, M.P., as Chairman, and the following terms of reference :—

(1) To make and consider suggestions for securing a permanent improvement in the relations between employers and workmen.

(2) To recommend means for securing that industrial conditions affecting the relations between employers and workmen shall be systematically reviewed by those concerned, with a view to improving conditions in the future.

The Committee issued a series of reports, as explained elsewhere in this chapter,\* and this Memorandum deals only with the recommendations made in the first report, dated 8th March, 1917, which related to the main industries of the country in which organisations representative of both sides were already in existence. The Report recommended, in view of the necessity for the continued co-operation of all classes after the war, and especially of employers and employed, the establishment for each industry of an organisation representative of employers and workpeople to have as its object the regular consideration of matters affecting the progress and well-being of the industry from the point of view of all those engaged in it, so far as this is consistent with the general interest of the community. It was therefore recommended that the Government should propose without delay to the various organisations of employers and employed the formation of Joint Standing Industrial Councils in the several industries to consist of representatives of the associations of employers and workpeople meeting at regular and frequent intervals for the consideration of such matters as :—

(i) The better utilisation of the practical knowledge and experience of the workpeople.

(ii) Means for securing to the workpeople a greater share in and responsibility for the determination and observance of the conditions under which their work is carried on.

(iii) The settlement of the general principles governing the conditions of employment, including the methods of fixing, paying, and readjusting wages, having regard to the need for securing to the workpeople a share in the increased prosperity of the industry.

(iv) The establishment of regular methods of negotiation for issues arising between employers and workpeople, with a view both to the prevention of differences and to their better adjustment when they appear.

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\* See pp. 260-1.

(v) Means of ensuring to the workpeople the greatest possible security of earnings and employment, without undue restriction upon change of occupation or employer.

(vi) Methods of fixing and adjusting earnings, piecework prices, &c., and of dealing with the many difficulties which arise with regard to the method and amount of payment apart from the fixing of general standard rates, which are already covered by paragraph (iii).

(vii) Technical education and training.

(viii) Industrial research and the full utilisation of its results.

(ix) The provision of facilities for the full consideration and utilisation of inventions and improvements designed by workpeople, and for the adequate safeguarding of the rights of the designers of such improvements.

(x) Improvements of processes, machinery and organisation and appropriate questions relating to management and the examination of industrial experiments, with special reference to co-operation in carrying new ideas into effect and full consideration of the workpeople's point of view in relation to them.

(xi) Proposed legislation affecting the industry.

The report further recommended that District Councils, similarly representative of associations of employers and employed, and Works Committees, representative of the management and of the workpeople in particular establishments, should be set up in conjunction with the National Councils.

It will be seen that the functions proposed for the Joint Industrial Councils by the Committee implied the acceptance of a much broader view of the possibilities of joint action in industry than underlay previous practice in collective bargaining. It is interesting, however, to note that in the Pottery and Building industries steps had already been taken before the issue of the first Whitley Report to form joint bodies for purposes similar to those referred to by the Committee.

The Report was circulated by the Ministry of Labour to 290 organisations of employers and workpeople, and, in view of the favourable reception of the policy indicated, the Report was adopted by the Cabinet, the Ministry of Labour being charged with the application of the recommendations.

#### *Establishment and Constitution of the Councils.*

Between January, 1918 and December 1921, 73 Joint Industrial Councils were established. In addition, 33 Interim Industrial Reconstruction Committees were formed in less organised industries in accordance with the desire of the Ministry of Reconstruction to have without delay joint bodies for the consideration of the problems of reconstruction. Of the Reconstruction Committees, 14 were

eventually reconstituted as Joint Industrial Councils, and seven others continue to function under their original title. There have been changes in the numbers of Councils, and a list is appended to this Memorandum showing those in existence in June, 1925.

The circumstances attending the establishment of the Joint Industrial Councils, and the work done by them up to the end of the year 1922 are reviewed at length in a report published by the Ministry of Labour.\* Attention may be drawn here to a number of points of interest.

The Whitley Committee refrained from making detailed recommendations in regard to individual industries, and experience has shown that the form of standing joint machinery may require variation according to the circumstances of particular industries, especially when they are carried on throughout the country.

As to representation, the Councils as a rule consist of representatives of employers' associations and organisations of industrial workers. Membership of the Pottery Council was at first confined, on the workpeople's side, to craft unions. Later, representation was given to the General Labourers' Unions, to the National Union of Clerks and to the Managers' and Officials' Association representing the salaried, managerial and technical staff. The last named were given seats on the employers' side, the representatives reserving freedom in voting. In the case of the Electricity Supply industry, the technical staffs were not represented on the Joint Industrial Council but a separate body, the National Joint Board, was formed for the purpose of dealing with their conditions.† The constitution of the Building Trades Joint Industrial Council, which has now ceased to function, provided for professional members in addition to the employers' and workpeople's representatives. Generally the attitude of Trade Union representatives has not been favourable to the representation of the technical and scientific staff, or of foremen and other supervisors, upon Joint Industrial Councils.

In certain cases it has been found necessary to alter the original constitutions in the light of experience. For example, the employers' side of the Electricity Supply Joint Industrial Council consisted originally of representatives of the Incorporated Municipal Electrical Association and six each from the private company associations. Following upon a demand for the direct representation of the municipal employers' sections of the District Councils, the employers' side of the National Council was reconstituted to provide for the direct election of one member from the employers' section of each of the 13 District Councils and the increase of the number of company representatives to 13. The Trade Union side remained unaltered. As it is usual on all Joint Industrial Councils to vote by sides, unequal

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\* Report on the Establishment and Progress of Joint Industrial Councils, 1923.

† See pp. 271-2.



numbers do not affect the proceedings. A similar change, in order to provide for the direct representation of the employers' sections of the District Councils, has been made in the case of the Local Authorities' Non-Trading Services (Manual Workers) Joint Industrial Council.

The number of representatives on each Council necessarily varies according to the circumstances of each industry and the number of organisations to be represented. The actual numbers vary from 70 to 14, much of the work on the larger Councils being delegated to Committees.

Again, there is some variation between the methods by which the various councils approach the question of wage discussion. Certain of the Joint Industrial Councils do not include the settlement of wages among their objects, e.g. the Boot and Shoe trade, which already had elaborate local and national machinery settled by agreement for the purpose of dealing with wages. The personnel, however, of the National Joint Conference which forms a part of this machinery, is similar to that of the Joint Industrial Council. Other National Councils which exclude wages were those for the Pottery, Building, and Printing Trades. In certain other cases the District Councils have been charged with the main responsibility for dealing with wages, the degree of autonomy varying in different cases. The National Councils usually retain a confirming authority. The practice in this matter is usually dependent upon the custom and circumstances of the trade concerned, and has been subject to change in the light of experience.\*

In the Quarrying Industry there are five Sectional Councils dealing with Lime and Limestone, Granite and Roadstone, Freestone, Slate, and Chalk. This division according to product followed the existing organisation of the employers and corresponded to distinct differences in the processes and the grades of labour involved. The Sectional Councils which in some cases also have District Councils are practically autonomous in respect of wages matters, but the National Council is the supreme authority.

On the Railways the establishment of Joint Councils, Sectional Councils and Local Departmental Committees was, after agreement between the parties, provided for by Section 63 of the Railways Act, 1921.†

The meetings of Joint Industrial Councils are held regularly, this being an important feature of the system, and provision is usually made for the calling of meetings on the application of either side. Normally, the Chairman is chosen from the employers' and workpeople's sides alternately. In the case of the Wool Council, there are two Chairmen, one from each side.

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\* As regards the practice of certain Councils, see memorandum on p. 265 *et seq.*

† See pp. 277-9.

*District Councils and Works Committees.*

The progress in the establishment of District Councils and Works Committees has varied widely among the several industries. Such decentralisation formed an important part of the recommendations of the Whitley Committee. A large proportion of the District Councils established are in the government, municipal and public utility services, and this result, having regard to the circumstances in which these services are carried on, is not unexpected. In the cases of industries which are localised to a substantial extent, such as Chemical Manufacture, Hosiery, Pottery, Soap and Candles, and in the case of those in which control was centralised, District Councils have not, as a rule, been established. In other cases various circumstances have caused National Councils to be unwilling to decentralise their authority. Thus, the degree of autonomy given to District Councils has varied according to circumstances, and, generally, it may be said that the problem of associating the districts and separate establishments formally with the National Councils has proved to be one of great difficulty. It is, however, recognised to be one of great importance, and the full tripartite scheme which the Whitley Committee recommended is still far from completion. The developments as regards Works Committees are dealt with elsewhere in this chapter.\*

*Activities of the Councils.*

In the abnormal circumstances of the period since the war the activities of the Councils have been to a large extent taken up in the consideration of wages, hours and conditions of employment. In this field it may be said that the Whitley Scheme has had two important effects in the industries to which it has been applied. It has widened the basis of collective bargaining, and has instituted permanent and systematic means for the review of wages and working conditions. In a large number of cases steps have been taken for the standardisation of wage rates and of hours throughout the industry. Various principles have been adopted, including the grading and classification of establishments and localities, and the adjustment of wages on cost of living scales, in some cases based on the rates of wages already in operation in the various districts. Various other working conditions have been discussed and settled on a more comprehensive scale than was the case previously.

In the field of conciliation and arbitration, the Councils have played an important part in assisting the industries to settle their differences themselves. The constitution of a large number of Councils provides that no stoppage of work shall take place until the matter in dispute has been considered by the Council, and this applies also to those Councils which do not include the settlement of wages

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\* See pp. 302 *et seq.*

among their functions. In some cases, as, for example, quarrying, a definite procedure has been instituted for the prevention and settlement of disputes. In the case of the Wool Council, panels of chairmen and arbitrators have been constituted for the purpose of dealing with disputes arising in individual establishments. A later development has been the *ad hoc* appointment on the initiative of the National Councils for the Tramways, Electricity Supply and Wool Councils, in association with the Ministry of Labour, of Tribunals to inquire into and make recommendations to the Councils on differences which had arisen. Experience has shown that the existence of a Joint Industrial Council, on which the organisations on both sides are constantly in touch, and on which there is regular intercourse between the employers' and workpeople's representatives, has enabled differences to be dealt with at an early stage, and has diminished the opportunity for disputes to arise through lack of understanding.

The "Whitley" Scheme, however, involved the discussion of subjects other than wages and hours, as has been explained at the beginning of this Memorandum, and, although the developments in the industries covered vary greatly, much progress has been made on the lines of securing consideration by the Councils of many such subjects. Among the matters dealt with have been unemployment, restoration of trade (including consideration of conditions abroad), research and the collection of statistics within the industries and from responsible outside authorities, education, training and apprenticeship, welfare, health and safety, workmen's compensation, transport facilities, action under the Safeguarding of Industries Act, merchandise marks, postal rates, &c., &c.

#### *Breakdown of certain Councils.*

Of the Councils established, 25 have ceased to function. Various causes have operated to produce this result, the most important of which have been ineffective organisation, the difficulties of wages adjustments and the divergence of sectional and district interests. With regard to the latter, the adoption of a scheme based on a triple organisation of a National Council, District Councils and Works Committees necessarily involved problems as to the relationship between the national, district and local organisations. In some industries, in which organisation was comparatively new and unstable, the adjustment of the various interests proved to be impracticable. In such cases the central authority probably attempted to exercise too great a control over local conditions. In the case of certain Councils which are still functioning, a similar breakdown has been avoided by the relegation of wage questions to local negotiations or other machinery.

In other cases the breakdown was due to the unduly wide area of industry which Councils attempted to cover, the result being that there was a lack of common interest among the constituent bodies.

Similarly, within certain industries it proved to be impossible to reconcile the interests of large and small undertakings, of town and country establishments and of groups of employers and workpeople of particular classes. Other causes have operated in individual cases to bring the work of Councils to an end, but, generally, it may be said that insuperable difficulties have arisen only in circumstances other than those envisaged by the Whitley Committee as suited to the establishment of Joint Councils.

## APPENDIX.

## JOINT INDUSTRIAL COUNCILS IN EXISTENCE, JUNE, 1925.

*Building and Allied Trades.*

Electrical Contracting Industry.

*Mining and Quarrying.*

China Clay Industry.

Quarrying Industry.

*Metal, Engineering, &c., Trades.*

Bobbin and Shuttle Making Industry.

Electrical Cable Making Industry.

Heating and Domestic Engineering.

Lead Manufacture Industry.

Lock, Latch and Key Industry.

Needle, Fishhook, Fishing Tackle and Allied Trades.

Welsh Plate and Sheet Trade.

Iron and Steel Wire Manufacturing Industry.

*Textile Trades.*

Asbestos Industry.

Carpet Industry.

British Coir Mat and Matting Industry.

Hosiery Trade.

Silk Industry.

The Wool (and Allied) Textile Industry.

*Paper, Printing, &c., Trades.*

Printing and Allied Trades of the United Kingdom.

Process Engraving Trades.

Wallpaper Makers' Industry.

Paper-making Industry.

*Woodworking Trades.*

Cooperage Industry.

*Glass, Pottery, Chemical, &c., Trades.*

Glass Manufacturing Industry (exclusive of Plate and Sheet Glass).

Pottery Industry.

Cement Manufacturing Industry.

Chemical Trade.

Match Manufacturing Industry.

Paint, Colour and Varnish Trades.

Seed Crushing and Compound Cake Manufacturing Industry.

Soap and Candle Industry.

*Food.*

Flour Milling Industry.

*Public Utility Services.*

Local Authorities Non-Trading Services (Manual Workers) (England and Wales).

Insurance Committees, Administrative, Technical and Clerical.

Electricity (Supply) Industry.

Gas Industry.

Tramway Industry.

Waterworks Undertakings' Industry.

*Other Trades.*

Boot and Shoe Manufacturing Industry.

Gas Mantle Industry.

Glove Manufacturing Industry.

*Transport Industry.\**

National Joint Council for Dock Labour.

National Maritime Board.

Furniture, Warehousing and Removing Industry.

*Public Administration.*

Admiralty (Industrial Establishments).

Air Ministry (Industrial Establishments).

Civil Service (Administrative and Legal Departments).

† Ministry of Munitions (Industrial Establishments).

Office of Works (Industrial Establishments).

Stationery Office (Industrial Establishments).

War Office (Industrial Establishments).

INTERIM INDUSTRIAL RECONSTRUCTION COMMITTEES IN  
EXISTENCE, JUNE, 1925.*Mining.*

Non-Ferrous Mines Industry.

*Metal, Engineering, &c., Trades.*

Optical Instrument Manufacturing Trade.

*Paper, Printing, &c.*

Envelope and Manufactured Stationery Industry.

*Brick, Chemicals, &c.*

Clay Industry.

*Food, &c.*

Cocoa, Chocolate, Sugar Confectionery and Jam Industry.

*Other Trades.*

Artificial Stone Industry.

Joint Industrial (District Council) for the industries of Making-up and Packing of Textiles for Export and of Cloth Working in Trust and/or on Commission (London Area).

\* Excluding the special case of Railways.

† Subsequently amalgamated with War Office Departmental Joint Council.

## WORKS COMMITTEES.

[*Furnished by the Ministry of Labour.*]

Works Committees constituted wholly of employees existed in individual establishments for many years before the war. Participation in deputations to the management, with or without the official shop stewards of the Trade Unions, naturally led in many cases to the formation of Committees for the consideration and presentation of matters affecting the workpeople arising in the shops. Joint Committees upon which the management was represented were, however, rarely to be found. This was, no doubt, largely due to the fact that Trade Union organisation seldom recognises the shop as a unit for trade union purposes, the usual local unit being the branch, membership of which is determined normally by place of residence and not place of employment. This, together with the fact that the workers in a shop may be members not only of different branches but also of different unions, tended in normal conditions to prevent Works Committees, either those of a joint type or those composed of workpeople only, from forming a definite part of the machinery of negotiation.

In the industrial conditions prevailing during the war a great impetus was given to the formation of Works Committees. This arose, in part, from the necessity for dealing with particular questions such as the application to individual establishments of proposals for "dilution" of labour. A consideration of a more general nature is that, in war-time conditions, the nature of the work done differed sharply between individual establishments, and there was thus provided a field within the scope of general Trade Union conditions for the functioning of Works Committees at individual works. In the rapidly changing conditions, the official Trade Union machinery worked under great difficulties, and an independent movement was commenced by the election of Shop Stewards in the various shops, and the formation of "Workers' Committees" in various districts, independent of the recognised Trade Union organisation. The objects of this movement were various but the important point, for the present purpose, is that it indicated in the prevailing circumstances a weakness in the connection between the general negotiating machinery of the Unions and the settlement of conditions in individual establishments. The Committees which grew up in this way were purely workpeople's organisations and did not include representatives of the managements.

In 1917, the Whitley Committee recommended, as an essential part of their scheme of organisation to secure improved relations between employers and employed, the establishment of joint Works Committees, representative of both management and workpeople.

The views of the Committee on the subject may be gathered from the following quotations from their reports :—

“ It is not enough to secure co-operation at the centre between the national organisations : it is equally necessary to enlist the activity and support of employers and employed in the districts and in individual establishments. The National Industrial Council should not be regarded as complete in itself : what is needed is a triple organisation in the workshops, the districts, and nationally.” (First Report.)

“ There are many questions closely affecting daily life and comfort in, and the success of the business, and affecting in no small degree efficiency of working, which are peculiar to the individual workshop or factory. The purpose of a Works Committee is to establish and maintain a system of co-operation in all these workshop matters.

“ We think the aim should be the complete and coherent organisation of the trade on both sides, and Works Committees will be of value in so far as they contribute to such a result. We are of opinion that the complete success of Works Committees necessarily depends largely upon the degree and efficiency of organisation in the trade, and upon the extent to which the Committees can be linked up, through organisations that we have in mind, with the remainder of the scheme which we are proposing, viz., the District and National Councils.

“ It is strongly felt that the setting up of Works Committees without the co-operation of the Trade Unions and the Employers' Associations in the trade or branch of trade concerned would stand in the way of the improved industrial relationships which in these Reports we are endeavouring to further.

“ In order to ensure uniform and common principles of action, it is essential that where National and District Industrial Councils exist the Works Committees should be in close touch with them, and the scheme for linking up Works Committees with the Councils should be considered and determined by the National Councils.” (Third Report.)

It will be clear from these extracts that the Whitley Committee advocated the further development of the establishment of Works Committees, and that, in particular, the Committees should be of the joint type representative of both managements and workpeople. It is with the subsequent history of this type of Committee—as distinct from those consisting of workpeople only—that the present Memorandum deals.

The Whitley Committee suggested that the Ministry of Labour should collect information on the subject of Works Committees, and a Report on the subject was published by the Ministry in

March, 1918\*. The object of the Report was to present the facts as accurately as possible and to point out the various difficulties which had been encountered and the various methods which had been devised to meet them. The general situation discovered by the Department and fully described in the Report was that shortly set out at the beginning of this Memorandum. The Report also set out the facts on such important aspects of the question as the differences of origin and composition of the Committees in existence, the relation between them and the Trade Unions, and the manner in which decisions were reached and implemented.

With a view to rendering assistance, the Ministry of Labour during 1918 prepared suggestions as to the actual constitution and functions of Works Committees in industries in which Joint Industrial Councils had been or might be established. The Ministry's suggestions were published in January, 1919.† They included a model scheme for a Joint Works Committee with various alternative suggestions as to practical methods for representation of the workpeople. They also included suggestions as to methods of procedure and as to functions generally suitable for a Works Committee.

These suggestions were drawn up by the Ministry with the object of assisting the parties concerned to the fullest extent, but it was recognised that divergencies from the model scheme would be necessary to meet the varying needs of different industries, and that for any scheme to be successful it would require the full support of the Employers' Associations and the Trade Unions concerned. In accordance with this policy, no action was taken by the Ministry to set up Works Committees at individual works without the concurrence of the Joint Industrial Council concerned, which carried with it the concurrence of the constituent Employers' Associations and Trade Unions. Within this limit, the Ministry gave its assistance by means of suggestions and advice, and by the services of its officers in helping those concerned in establishing Works Committees to prepare constitutions, etc., and in explaining methods of procedure which had been found by the Department to have been successful.

The Ministry of Labour has in the ordinary course no direct official relations with Works Committees which have been established. Information as to their activity, therefore, is not as a rule available. An account of the action taken and progress made in respect of Joint Industrial Works Committees up to and including 1922 is to be found in Chapter 6 of the "Report on the Establishment and Progress of Joint Industrial Councils," published by the Ministry in 1923. That Report states :—

" Even those Joint Industrial Councils which have taken action in the matter have, as a rule, no figures which would

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\* Industrial Reports No. 2. † Industrial Reports No. 4.



show the number of Works Committees in their respective industries. Moreover many firms have formed Works Committees in industries in which the Joint Industrial Councils have taken no action and, as already stated, Works Committees exist in industries in which Joint Industrial Councils have not been established. It is probable, however, that considerably over 1,000 Works Committees have been formed."

Although no further special inquiry has been made since that of 1918, it is known that a considerable number of the Joint Committees established during and after the war have ceased to function. For example, in the Pottery Industry over 100 Works Committees were formed. Recent inquiry has indicated that only about 24 Committees are now working, and it is understood that further investigation is being made, under the auspices of the Pottery Joint Industrial Council, as to the causes which have operated to produce this result. The decline in the number of Works Committees would appear to have been fairly rapid since 1920, and it is probably true to say that they have only survived in establishments in which there is a very definite desire on the part of both managements and workpeople to make the Committees a success. The majority of the Committees in existence appear to be concerned mainly with such matters as welfare, the settlement of individual grievances and disputes, allocation of working hours, bad work and bad time-keeping, safety, education and sports organisation. In some cases encouragement is given to the making of suggestions for the improvement in method and organisation of work and the promotion of efficiency generally. It seems to be accepted that, unless a Works Committee has a clearly defined field of work and unless action follows decisions which are reached, interest is not maintained.

There have been exceptions to this general tendency towards a decline in the total number of joint Works Committees in existence, e.g. those set up in the engineering industry as a consequence of a national joint agreement of March, 1919, permitting their establishment, and, also, the Local Departmental Committees in the railway service set up after the agreement between the companies and the unions following the Railways Act of 1921.\* The general decline in numbers, however, is unmistakable and is, no doubt, due to gradual return from the special conditions of war-time. Questions of industrial relationships, after 1919, began to take on a more general character and became more of the type which could best be treated by the recognised trade union machinery dealing with district and national rather than establishment matters. The pre-war system of local agreements was replaced, as a result of the methods of regulating wages advances during the war, by national agreements; and, with the trade depression, attention was centred

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\* See p. 279.

mainly on wide questions relating to wages and hours, such as lie outside the scope of Works Committees.

It is impossible, without special inquiry, to indicate in detail the position in the various industries as regards Works Committees. It is safe to say, however, that, while no industry has a uniform system of Works Committees, there is usually in those industries in which membership of organisation is common, recognised procedure for dealing with matters arising within individual establishments.

While, for the reasons given, it is impossible to give statistics of the numbers of committees in existence, it is a matter of common knowledge that a large number have survived the peculiarly difficult conditions of the last five years and that many of these have been successful both in fulfilling the objects which the Whitley Committee had in view and also in other directions.

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#### NATIONAL INDUSTRIAL AND ECONOMIC COUNCILS, GREAT BRITAIN AND ABROAD.

In addition to the various types of joint machinery representing the employers and the workpeople in individual works, districts, branches of an industry and whole industries or services, the suggestion has been put forward on occasion that some sort of central body, widely representative of industrial opinion, and national in scope, should be established to deal with purely industrial and economic questions. The suggestions which have been made as to the composition, functions and authority of such a body have varied very widely, and it is not proposed in the present memorandum to describe or to review the suggestions made on the subject but merely to describe the experiments which have been made on these lines, both in Great Britain and in certain foreign countries.

#### **Great Britain.**

*[Furnished by the Ministry of Labour.]*

An account has been given earlier\* of the appointment by the Government of the Industrial Council in 1911. This consisted of 13 representatives of employers' associations and trade unions respectively, with a neutral Chairman, and it reported in 1913 to the Government upon certain of the questions within its terms of reference. The various types of special machinery which had to be established to deal with the exceptional conditions of wartime led, in effect, to the end of this experiment.

Early in 1919, in view of the prevailing industrial unrest, the Minister of Labour invited representatives of all the principal employers' associations and trade unions, joint industrial councils,

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\* See pp. 256-7.

trade boards and interim industrial reconstruction committees, to a National Industrial Conference. This was held in February, 1919, and was attended by members of the Government. The Conference appointed a Provisional Joint Committee to report on the causes of unrest and the steps necessary to safeguard and promote the best interests of employers, workpeople and the State, and especially to consider (1) questions relating to hours, wages and general conditions of employment, (2) unemployment and its prevention, and (3) the best methods of promoting co-operation between capital and labour. The Provisional Joint Committee, in its Report, set out a number of conclusions, of which the following is a summary :—

#### *Hours.*

The establishment by legal enactment of the principle of a maximum normal working week of 48 hours, subject to—

(a) Agreements between employers' organisations and trade unions for higher or lower maxima to be capable of application to the trade concerned.

(b) Provision for variation or exemption by Order in cases of special necessity.

(c) Systematic overtime to be discouraged, and unavoidable overtime to be paid for at special rates.

#### *Wages.*

(a) The establishment by legal enactment of minimum time-rates of wages, to be of universal applicability.

(b) A Commission to report within three months as to what these minimum rates should be.

(c) Extension of the establishment of Trade Boards for less organised trades.

(d) Minimum time-rates agreements between employers' organisations and trade unions to be capable of application to all employers engaged in the trade falling within the scope of the agreement.

(e) Trade Conferences to be held to consider how war advances and bonuses should be dealt with, and, in particular, whether they should be added to the time rates or piecework prices or should be treated separately as advances given on account of the conditions due to the war.

#### *Recognition of, and Negotiations between, Organisations of Employers and Workpeople.*

(a) Basis of negotiation between employers and workpeople should be full and frank acceptance of employers' organisations and trade unions as the recognised organisations to speak and act on behalf of their members.

(b) Members should accept the jurisdiction of their respective organisations.

(c) Employers' organisations and trade unions should enter into negotiations for the establishment of machinery, or the revision of existing machinery, for the avoidance of disputes, with provision for a representative method of negotiation in questions in which the same class of employers or workpeople are represented by more than one organisation respectively, and for the protection of employers' interests where members of Trade Unions of workpeople are engaged in positions of trust or confidentiality, provided the right of such employees to join or remain members of any trade union is not thereby affected.

#### *Unemployment.*

##### *(1) Prevention of Unemployment.*

(a) Organised short time has considerable value in periods of depression. The joint representative bodies in each trade afford convenient machinery for controlling and regulating short time.

(b) Government orders should be regulated with a view to stabilising employment.

(c) Government housing schemes should be pressed forward without delay.

(d) Demand for labour could be increased by State development of new industries.

##### *(2) Maintenance of Unemployed Workpeople.*

(e) Normal provision for maintenance during unemployment should be more adequate and of wider application and should be extended to under-employment.

(f) Unemployed persons, and particularly young persons, should have free opportunities of continuing their education.

(g) The employment of married women and widows who have young children should be subject of special enquiry.

(h) The age at which a child should enter employment should be raised beyond the existing limit.

(i) Sickness and Infirmity Benefits, and Old Age Pensions require immediate investigation with a view to more generous provisions being made.

#### *National Industrial Council.*

(a) A permanent National Industrial Council should be established to consider and advise the Government on national industrial questions.

(b) It should consist of 400 members, 200 elected by employers' organisations, and 200 by trade unions.

(c) The Minister of Labour should be President of the Council.

(d) There should be a Standing Committee of the Council numbering 50 members, and consisting of 25 members elected by and from the employers' representatives, and 25 by and from the trade union representatives, on the Council.

The action taken by the Government in connection with these conclusions has been mentioned earlier in this chapter.\* No subsequent action has been taken to call together any joint conference in any way representative of all engaged in industry. In so far as Great Britain is concerned, therefore, the position is that any action of this nature has been of a purely experimental kind and that no steps to establish a permanent body of the nature in question have been taken.

#### Other Countries.

[Compiled from information furnished by the Ministry of Labour and the Department of Overseas Trade.]

A certain number of experiments in the establishment of standing bodies widely representative of industrial interests for the purpose of dealing with industrial or economic questions have been made abroad, and a certain amount of official information is available as to these experiments. The present memorandum only proposes to set out such information as is available and, accordingly, it does not represent the result of any special enquiry into the question; still less does it purport to give an authoritative description of the effect of legislation in any of the countries mentioned. The information available, however, shows that experiments on some such lines have been made in Belgium, France, Germany, Italy, the Netherlands and Spain. The bodies appointed have varied from councils of a purely advisory nature attached to a Government Department† to experiments in the formation of a regular parliament of industry as in Germany.

#### *Advisory Councils in certain countries.*

Councils recruited in various ways and with varying titles, roughly translatable as "higher (or superior) council of labour (or industry)," but having a common factor in that they are of merely an advisory or consultative nature, have existed for some considerable time in Belgium, France, Italy and the Netherlands. That in France, for example, has existed in its present form since 1891, but its career can be traced back to 1848, while that in Belgium was established in 1890. Such a body has recently been established in Spain.

\* See p. 262.

† Advisory Councils of comprehensive constitution are attached to certain Government Departments in this country.

These Councils vary in size from about fifty to eighty members, and are all composed, though in varying proportions, of employers, merchants, workpeople, departmental officials and economists. In Spain and in the Netherlands the members are nominated by the Government, but in Belgium, France and Italy the majority, again of a varying size, are elected representatives of industrial and commercial organisations; the minority, generally the officials and the economists, being nominated by the Governments.

As has been said, all these bodies are purely advisory, there being no obligation upon the Government to accept their recommendations, but the weight given by the Governments to their expressions of opinion appears to vary in the different countries, the most influential of the councils, apparently, being that in France. These Councils are all standing bodies, and meet once or perhaps twice a year, but all have the power to meet when one-third of the members insist upon a meeting being held. It seems that in every case industrial and commercial questions of all kinds, and in particular draft bills on relevant subjects, are referred to the Councils for criticism. Some of them, in particular that in France, even draft bills themselves for submission to Parliament. It is common to them all, however, that they are entirely dependent upon the Government of the day to have their suggestions or recommendations put into effect.

While the general form and functions of these bodies follow a more or less common line, a few individual practices are worth noting. In *Belgium*, for example, the Government can convoke a joint assembly of the three Councils of Industry and Commerce, Labour, and Agriculture, thus forming an assembly of a widely representative nature. The *French* Council, as such, has one session of a fortnight's duration each year and except for the war years has met every year since 1891. Its special feature is a standing committee of nineteen, which investigates conditions of labour, relations between employers and employed, and the causes and circumstances of strikes and lockouts. The Committee has right of access to all relevant documents and statistics, and can call for evidence. Its reports come before the annual meeting of the Council and are dealt with by resolutions, which must be adopted by a majority vote, and which set out the difficulties or abuses revealed and the reforms best fitted to remove them. The Council is stated to form an active and useful auxiliary to the Government of France. This body, the Higher Council of Labour, should be distinguished from the National Economic Council set up in 1925, which is referred to later in this memorandum. In *Italy* there were schemes to develop the Council on the lines of allowing it to exercise some of the powers of Parliament in matters concerning industry, but these schemes have never been put into practice. The *Dutch* Council, though directly under the control of the Ministry of Labour, has

power to appoint committees of its members to deal with any subject which may be selected by the Council itself. In *Spain* a Council was set up in 1923 with very wide functions, such as the giving of advice on all industrial and labour questions and the study of national production for the purpose of fixing tariffs, making commercial treaties and encouraging production generally. This body would appear to be part of the administrative machine of government rather than a joint industrial body on the lines understood in this country.

*The German Provisional Federal Economic Council.*

Probably the most important experiment in the establishment of a widely representative body for the express purpose of considering industrial and economic questions, was that conducted in Germany. The Weimar Constitution provided for a Federal Economic Council. This was never set up, but a provisional Federal Economic Council was inaugurated in May, 1920, with functions limited to advising the Government on social and economic questions, and to putting forward proposals on such questions. These powers were more restricted than those originally intended, but it was felt that the various political difficulties of the time rendered a temporary arrangement necessary. The object of the establishment of the Council was at the time described as "to take the burden of economic and technical questions off the Reichstag," and the Council was to have powers of initiative to propose Bills, as well as advisory powers. It was hoped that the Council would not be guided entirely by considerations of party expediency. The original proposal was that the representation should be upon a territorial basis, but it was eventually decided that representation should be based upon organised groups of industries, and the membership, originally intended to be 100, was thus increased to 326. The members were appointed by employers' and workpeople's organisations, "consumers' organisations," and the Government. Voting was to be by groups, but the returns were to show in detail the majority and minority vote within the groups. For this purpose the representatives were divided into nine separate groups. The day to day work was intended to be done by an executive committee of eighteen, and an economic committee and a socio-political committee, each of thirty members. All committees were to consist of one-third representatives of the employers, one-third workpeople and one-third consumers and professions.

The Council's functions were entirely advisory, and an American enquirer, in 1922, reported that, in practice, the Government submitted appropriate draft bills and programmes of contemplated action to the Council, which made detailed reports and recommendations, and that Government Departments submitted current problems of importance to the Council for its views. Further, the

Council on its own initiative took up enquiries on any subject it desired, and submitted its views to the Government. This enquirer also said that the Council on occasion expressed both criticism and disapproval of various actions of the Government and the Departments, and that when formal enquiries signed by at least thirty members were addressed to the Government, they were answered by the Chancellor in person before a full session of the Council. Possibly owing to its size, the Council tended to work by committees rather than in full session; thus, in its year from April, 1921, to April, 1922, twenty-nine full meetings were held, but over seven hundred committee meetings took place. These committees dealt with a large number of different topics, the more important of which were land settlement, housing, tariffs, export duties, various aspects of taxation, the capital levy, reparation payments, Government credits, control of retail prices, improvement of labour statistics, hours of employment, &c., &c.

Early in 1924, in connection with the reform of the currency, it became necessary to reduce State expenditure, and steps were taken to reduce the membership and restrict the activities of the Economic Council. The Chairman was instructed not to summon a meeting without the approval of the Federal Government, and, though some of the committees continued their work, no meeting of the Council has been held since June, 1923. There have been certain criticisms of this action, particularly from the Trade Unions, but it seems that for the present the activities of the Council are, to say the least, suspended, though there has recently been a revival of activity on the part of the committees of the Council, certain of which have been considering Bills on such subjects as Accident Insurance.

In view of this experience, many observers, both German and others, consider the Council so far a failure, and various causes for this have been suggested. The most common criticisms are that the membership was too large and that the Council was not allocated functions of a sufficiently practical kind. It has also been contended that the Council's real mission was to become, through its machinery of standing Committees, a permanent expert consultative body, but that it became, in fact, a committee of enquiry with parliamentary forms, and by not remaining so free from purely political controversy as was hoped, made opponents of those who feared the possibility of such a body tending to usurp some of the functions of Parliament. The extreme elements, both on the employers' and workpeople's side, disliked it as standing between them and their ultimate aims, so that eventually it was supported only by the more moderate elements and by the more independent members. This, at a time when extreme political views were widely held, tended to weaken the Council's position considerably.

Those who continue to advocate such a Council hold that the experiment was too short, and that the Council was slowly finding



its proper place in the administrative machine when its activities were curtailed. Further, it is argued that the political reactions arising from the invasion of the Ruhr produced a situation in which it was impossible for any such body to have a fair trial.

*The French National Economic Council.*

An interesting experiment has recently been begun in France. In July, 1924, the Minister of Labour appointed a Commission to prepare a programme for the establishment of a National Economic Council. The Minister stated that this body was to be a consultative one, and would be the technical adviser of the Government and of Parliament on important economic problems. The Commission reported in September, 1924, and in January, 1925, a National Economic Council was set up by Presidential Decree, to consist of 47 members, 9 representing municipal bodies, co-operative societies and various kinds of consumers, 23 representing wage-earning and salaried persons, 2 representing independent handcraftsmen, and 8 representing capital. The members were to be nominated by organisations, but the organisations were to be chosen by the Government. A member was to be chosen for two years. Additional members might be co-opted. The Council was to meet four times yearly for ten days, or more frequently if called together on its own suggestion, and its day to day work was to be done by a permanent committee of ten members. The purpose of the Council was defined as that of investigating national problems and the submission to the Government of proposals for their solution. The Council is experimental, and is not intended to be in the nature of a parliament or even of an industrial chamber. It is to act in a purely advisory capacity, and to serve as a centre of information on economic questions.

The Council is entitled to be heard by Ministers and by the Committees of the Chamber and the Senate, and both Ministers and Committees have the right to be represented on the Council. The Council will submit the results of its deliberations, either as reports or as recommendations, to the Prime Minister, who will either inform the Council within two months of the action taken, or will request that the question be examined anew. The Government will forward to the Council for consideration all bills of an economic character, as well as draft administrative regulations of a similar kind.

The Council held its first meeting on 22nd June, 1925, with the Prime Minister in the chair. The Standing Committee met soon afterwards, and decided that one question should be thoroughly studied during each session, and that the next two meetings should be devoted to the housing problem. It is understood that the Standing Committee is also collecting information regarding the problem of national equipment, and the policy to be followed in regard to raw materials.

COMPULSORY ENFORCEMENT OF VOLUNTARY  
AGREEMENTS.

[*Furnished by the Ministry of Labour.*]

It has been explained earlier in this chapter that, in general, industrial agreements rest, in this country, on a purely voluntary basis. There has, however, at all times been a certain volume of discussion as to the desirability of some measure of compulsion. The question how far and in what manner industrial agreements should be enforced throughout a particular trade or district, was considered in 1913 by the Industrial Council, presided over by Lord Askwith\*, and in their report, the Council stated that, subject to certain conditions, they were in favour of the extension of an agreement to the whole of the trade or districts concerned.

In September, 1912, and again in September, 1913, the question was brought before the Trades Union Congress by resolutions, which were, however, defeated in each case by a large majority. The proposal was also rejected by the Labour Party in January, 1913.

In February, 1917, an agreement was entered into between the Engineering Employers' Federation and Unions connected with the Engineering and Foundry Trades for periodical reference to the Committee on Production† of claims for general alterations of wages, and in connection with this agreement the following memorandum was agreed between the parties :—

“ The Engineering Employers' Federation and the Unions whose signatures are appended hereto, recommend to H.M. Government that arrangements should be made whereby all employers in the 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.”

In March, 1917, the first report of the “ Whitley ” Committee was issued. This included the following paragraph :—

“ It appears to us that it may be desirable at some later stage for the State to give the sanction of law to agreements made by the [Joint Industrial] Councils, but the initiative in this direction should come from the Councils themselves.”

Subsequently, a number of agreements similar to that mentioned above for the Engineering Industry were entered into in other trades, and, in these circumstances, statutory provision was made in the Munitions of War Act of 1917, whereby representative agreements and awards could be extended to be binding, with or without modification, on the contracting parties and on all or any other employers or persons engaged in the industry, either generally or in a particular

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\* See pp. 256-7.

† See p. 258.

district. Use was made of this provision in a number of instances, and similar power was taken by the Minister of Labour in the Wages (Temporary Regulation) Act, which in November, 1918, superseded these provisions of the Munitions of War Acts. The new Act provided that, under certain circumstances, the Minister of Labour could direct that the provisions of an award, agreement, or settlement should be binding on all workmen to whom the prescribed rate in question was applicable, and the employers of those workmen. These powers lapsed in November, 1919. The only subsequent legislation bearing on the question has been the Corn Production Acts (Repeal) Act, 1921, under which decisions agreed by the Voluntary Conciliation Committees set up in place of the Agricultural Wages Board, might, on joint application of the parties and by order of the Minister of Agriculture, be extended and made legally binding upon employers and workpeople in the district concerned. This provision, however, was rarely used.

At an early stage in their deliberations, the problem of the non-associated employer came before a substantial number of Joint Industrial Councils, and in the case of the Made-up Leather Goods and the Sawmilling Councils, the problem of the non-federated firm became very acute. A meeting was held in January, 1920, to consider the establishment of an Association of Joint Industrial Councils, and at that meeting the following resolution was unanimously adopted:—"Negotiations should at once be commenced by the Government to give the necessary power to the Ministry of Labour to make binding upon the whole of the industry any wages awards and agreements as to working hours and conditions made by Joint Industrial Councils, or where no such Council exists, by a majority of the members of such industry, and that the Industrial Councils be invited to consider these Resolutions and forward an expression of opinion to the Minister of Labour."

This resolution was sent to the Minister of Labour, who in March, 1920, gave the following answer in the House of Commons to a question on the subject:—

"I propose to answer this question in some detail, because the principle involved is one to which public attention ought to be given. I should say, in the first place, that, while it is the fact that several Joint Industrial Councils have asked for powers to make their agreements compulsory on the whole trade, it is far from being the case that this demand is universal. This division of opinion was to be expected in view of the controversial history of this and the allied question, from which it is difficult to dissociate it, of making awards of Courts of Arbitration compulsory. In 1913, the Industrial Council, a body consisting of representatives of employers' associations and trade unions under the chairmanship of Sir George (now Lord) Askwith, reported that, subject to certain conditions to

which I need not allude, an agreement entered into by associations of employers and workmen, representing a substantial body of those in the trade or district, should be made applicable to the whole of the trade or district concerned. The matter was then considered by the Trades Union Congress, at which the proposal was rejected by a large majority. The Trades Union Congress had previously rejected the idea in 1912, and the Labour Party adopted the same attitude in 1913. The Hon. Member's proposal was the subject of one of the recommendations of the Provisional Joint Committee of the National Industrial Conference. I endeavoured to secure the opinion of the Trades Union Congress in September of last year, but I understood that the Parliamentary Committee was unable to bring the matter before the main body. I made a further attempt to ascertain the reception which the proposal would meet with from the workpeople's organisations at the time when I was introducing the Industrial Courts Act. At that time, however, it was rejected by the trade union organisations largely on the ground that it was proposed, and I think justly proposed, to make compulsion two-sided, penalties for breach being provided equally against employers and employed. Under the Trade Union Act of 1871, and the Trade Disputes Act, 1906, not only is it impossible to enforce legally an agreement made between employers' associations and workers' associations, but it is also impossible to bring an action against either such association for inducing or assisting its members to break the contract to which it has itself been a party. Contracts between employers' and workmen's associations rest, therefore, only upon the good faith of the parties to them, and unless the law is altered in this respect, it is difficult to see how it is possible to make them legally binding upon persons who are not themselves parties to the agreement. The difficulty of making compulsion apply equally is perhaps not greater than the practical difficulties which would be involved in making agreements of Joint Industrial Councils compulsory on the whole trade. Not only would complicated questions of demarcation and trade definition inevitably arise, but the question of the extent to which any given group of employers or employed represented a large majority of the trade would require close examination. There is a further difficulty that certain wage settlements affect an industry, while others affect a craft extending through a number of industries. For these reasons, it is clear that the matter is not one which can be settled without a great deal of further discussion and examination. In saying this, however, I am not averse from giving further consideration to this matter, but unless a substantial agreement of opinion exists among employers and workpeople, I should not be prepared to introduce the necessary legislation."

A Conference of Joint Industrial Councils and Interim Reconstruction Committees was held in March, 1921, when it was reported that, of the 21 Councils and Committees who had decided to join the Association, 16 had signified that they were favourable, and two that they were against the recommendation mentioned above, as having been passed at the meeting in the previous year. After discussion, the following resolution was passed by a vote of 16 to 5 :—

“ That this Conference of Industrial Councils and Reconstruction Committees is strongly of opinion that legislation should at once be commenced by the Ministry of Labour to make binding upon the whole of any industry any wages awards or agreements or arrangements as to working hours or conditions made by Joint Industrial Councils and Interim Industrial Reconstruction Committees, if so requested by the Council or Committee concerned.”

The Minister of Labour, on this resolution being forwarded to him, directed attention to the answer given in March, 1920, and intimated that that statement still represented his views.

At the Trades Union Congress in 1921, an amendment on the subject aroused very little attention, only one speaker referring to it, and then for the purpose of opposing the proposal. A Sub-Committee of the Trades Union Congress General Council later went very fully into the proposal to make the decisions of Joint Industrial Councils binding on the whole trade, and favoured entrusting the Minister of Labour with authority to register joint agreements when so requested by both parties, provided that the Joint Industrial Council represented 75 per cent. of the industry concerned. The General Council felt, however, that, as the trade union movement was almost equally divided upon the subject, it should be left to Congress to determine whether the principle should be approved or rejected. The matter was, accordingly, made the subject of discussion at the 1923 Congress, when it was decided to reject the proposal.

The Association of Joint Industrial Councils continued to advocate legislation on the subject, and in January, 1924, a private member's Bill was introduced in the House of Commons. The Bill proposed, *inter alia*, that :—

(i) Where requested by an Association of employers or workers' in any industry, or where it appears to him to be practicable, the Minister of Labour shall convene a conference with a view to the formation of a Joint Industrial Council.

(ii) A Central Industrial Board shall be established by the Minister of Labour consisting of an equal number of representatives of employers and workers, one representative from each side to be appointed by each Industrial Council; the meetings of the Board to be presided over by a Chairman to be elected by such Board; and

(iii) The Minister of Labour shall have power, on the application of a Joint Industrial Council, and after adequate inquiry, to make an order to secure the legal enforcement of the agreements of Joint Industrial Councils.

The Bill contained a penal clause to apply in cases of evasion of or non-compliance with orders made by the Minister. It did not propose to make statutory every agreement of an Industrial Council, but only when application is made. Industries could still retain their wage and other agreements on a voluntary basis, and without compulsory force, if so desired. The Bill was given a second reading in March, 1924, but it was indicated that the support given was mainly to the proposed powers in respect of the establishment of Joint Industrial Councils, and that, at the Committee stage, drastic amendments of the proposals in respect of the extension of agreements would probably be sought. The Bill made no further progress before the dissolution of Parliament in October, 1924. No Bill dealing with the matter has since been introduced in Parliament.

The Association of Joint Industrial Councils is understood to remain in favour of legislation on lines similar to those of the Bill of 1924, and the following resolution was adopted at the Trades Union Congress of 1925 :—“ This Congress instructs the General Council to urge upon H.M. Government the desirability of giving to National Agreements voluntarily entered into and approved by Joint Industrial Councils, the same validity as awards under the Trade Boards Acts, 1909 and 1918, with the object of ensuring the observance of fair conditions of labour by all engaged in the industries, whenever requested by the parties to the agreement.”

#### PROFIT-SHARING AND LABOUR CO-PARTNERSHIP.\*

[Furnished by the Ministry of Labour.]

##### *Definition of " Profit-sharing."*

In view of the wide variety of schemes to which the term " Profit-sharing " has been applied, it will be desirable to explain at the outset the sense in which the term is used in this Memorandum. The definition adopted is in general accordance with that formulated by the International Congress on Profit-sharing in 1889, which was as follows :—

“ The International Congress is of opinion that the agreement, freely entered into, by which the employee receives a share, *fixed in advance*, of the profits, is in harmony with equity and with the essential principles underlying all legislation.”

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\* In a " Report on Profit-Sharing and Labour Co-partnership in the United Kingdom," compiled by the Ministry of Labour, and published in 1920 (Cmd. 544), a detailed account was given of the development of profit-sharing and labour co-partnership in this country up to that date.

The Special Committee of the Congress, who prepared this definition, accompanied it with an explanatory Report, from which the following extracts may be given :—

“ By a ‘ share ’ in profits is meant a sum paid to an employee, in addition to his wages, out of the profits, the amount of which is dependent on the amount of these profits. If an employer undertakes, for example, to contribute to a pension fund £1 for every £2 contributed by his workmen, this is not a case of profit-sharing, unless the undertaking is to pay out of profits only, because the sum payable under the agreement does not depend upon the amount of the year’s profits.

“ The payment of bonus on output, premiums proportionate to savings effected in production, commission on sales, and other systems under which the amount of the bonus depends upon the quality or amount of the output or volume of business, irrespective of the rate of profit earned, do not constitute Profit-sharing.

“ The share must be fixed in advance, but it is not necessary that the employees shall know all the details of the basis upon which the amount of their share is fixed. Thus, an employer may agree to give his employees one-half of all his profits in excess of a certain ‘ reserved limit,’ that limit being communicated only to an accountant, who certifies what is due to the employees ; this would be a case of profit-sharing. The important thing is that the share must not be indeterminate ; for example, if the employer at the end of the year determines whether he shall give one-tenth or one-fifth, or some other fraction of his profits, to his employees, at his absolute discretion, and not upon any pre-arranged basis, this is not profit-sharing.

“ The participants under a profit-sharing scheme must include a substantial proportion of the ordinary employees\* ; a scheme limited to managers, foremen, and leading hands, or to any such class of employees, is not an example of profit-sharing.”

The term “ profit-sharing ” is, accordingly, here used as applying to those cases in which an employer agrees with his employees that they shall receive, in partial remuneration of their labour, and in addition to their wages, a share, fixed beforehand, in the profits realised by the undertaking to which the profit-sharing scheme applies. In conformity with this definition the statistics exclude certain types of schemes for supplementing the ordinary remuneration of employees, to some of which the term profit-sharing is at times loosely applied, e.g. schemes consisting in the giving of bonuses or gratuities at the discretion of the employer and on no pre-arranged basis, bonuses on sales, “ premium bonus ” or other bonuses on

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\* The Committee themselves suggested a proportion of 75 per cent. of the adult employees with at least one year’s service.

output, or supplementary wages of fixed amount or determined on some basis other than that of profits, etc. Those schemes in which the bonus, however calculated, is paid partly in lieu of ordinary wages are also excluded. As will be seen later, however, the definition still admits a considerable variety of schemes, some of which might not, perhaps, be included under a more strict interpretation.

There is, for example, a well marked group of schemes, under which a firm opens a savings bank for its employees, and accepts deposits at a rate of interest varying with the profits of the business. Under another type of scheme, shares in the capital of the business are issued to employees either free, or at a reduced price, the element of profit-sharing consisting of the dividends paid, or of that part of the dividend representing the advantage enjoyed by the employee-shareholder over the ordinary investor. Such arrangements have been regarded in this memorandum as falling within the definition adopted, although many people might not have schemes of this sort in mind when thinking of profit-sharing.

*Definition of "Labour Co-Partnership."*

The term "Labour Co-partnership" appears to have been coming into more general use in recent years. Although loosely applied in many cases, it is generally regarded as denoting an extension of the principle of profit-sharing in the direction of enabling employees, in addition to sharing in the profits, to acquire some share in the capital and control of the business with which they are associated. Thus the definition of labour co-partnership propounded by the Labour Co-partnership Association is as follows:—

"Co-partnership claims for all the workers that they shall share to some extent in the profits, capital, and control of the business in which they are employed. This may be stated more fully:—

(i) That the worker shall receive, in addition to the standard wages of the trade, some share in the final profit of the business, or the economy of production.

(ii) That the worker shall accumulate his share of profit, or part thereof, in the capital of the business employing him.

(iii) That the worker shall acquire some share in the control of the business in one or both the two following ways:—

(a) By acquiring share capital, and thus gaining the ordinary rights and responsibilities of a shareholder.

(b) By the formation of a Co-partnership Committee of workers, having a voice in the internal management.

In view of the element of profit-sharing contained in co-partnership schemes as defined above, no rigid distinction between profit-sharing and co-partnership has been attempted in preparing the statistics presented in this memorandum, the schemes covered by the figures



being those which satisfy the definition of profit-sharing referred to above, irrespective of whether or not they embrace an element of co-partnership in addition.

*Extent of Profit-sharing.*

At the end of 1924, 230 firms (exclusive of co-operative societies) were believed to be practising profit-sharing in Great Britain and Northern Ireland; 6 of these firms had each two separate schemes, so that the total number of schemes in operation was 236. Six other schemes were in abeyance, though not definitely terminated.

The average number of workpeople employed by these 230 firms was about 340,000, of whom approximately 172,000 were eligible to participate in the benefits conferred by the schemes.

Very few of the schemes known to be in existence at the present time date from before the beginning of this century. At the end of 1924 the number of schemes known to be in existence was slightly less than the number that had come to an end; and 113, or nearly one-half of the schemes still in existence, dated from after the war. Of 191 schemes which started before 1901, only 31 now survive. The following table shows the principal facts as to the progress of the system :—

Period in which schemes were started.	Total number started.	Since terminated.	Still in existence.	Proportion of existing schemes to total started in the period.
Prior to 1881 .. ..	35	30	5	% 14
1881-90 .. ..	79	67	12	15
1891-1900 .. ..	77	63	14	18
1901-5 .. ..	26	19	7	27
1906-10 .. ..	55	22	33	60
1911-15 .. ..	64	22	42	66
1916-18 .. ..	22	6	16	73
1919 .. ..	51	12	39	76
1920 .. ..	50	9	41	82
1921 .. ..	13	1	12	92
1922 .. ..	7	—	7	100
1923 .. ..	8	—	8	100
1924 .. ..	6	—	6	100
Total .. ..	493	251	242*	49

\* Including six schemes suspended, but not definitely terminated.

The numbers of schemes started show great variations from year to year. A movement in favour of profit-sharing is started, and for two, three or four years it continues with great energy; then the impetus appears to slacken and the movement is quiescent, sometimes

for a long period of years. The years 1889-92, 1908-9, 1912-14 and 1919-20 were periods of activity ; while the whole period 1893-1907, the period of the war, and the period from the beginning of 1921 to date, were periods of quiescence. There does not appear to be any close correlation between these fluctuations and those of other industrial statistics ; though the figures seem to indicate, in a very general way, that periods of activity in the profit-sharing movement coincide with periods of good employment. Periods of bad employment are generally also periods of low profits, which are not, of course, favourable to the introduction of profit-sharing schemes.

Taking the four periods of maximum activity in the profit-sharing movement, it will be noted that 1889 was the year of the International Congress on Profit-sharing, from which it may be inferred that profit-sharing was receiving a good deal of public attention at that time, in this and in other countries. This was, also, the year of the inauguration of the South Metropolitan Gas Company's scheme and of an attempt, which did not result in the introduction of a scheme, to begin a system of profit-sharing in the Thames Ironworks and Shipbuilding Company. It may be added that 1889, 1890, and 1891 were all years of good employment. The next period of maximum activity, 1908-9, marks the origin of many of the gas companies' schemes, but is not really a case of general activity in the Profit-sharing movement as a whole. The next period, 1912-14, is a conspicuous example of a period of good employment. The years 1919-20 were years of great prosperity, accompanied by much industrial unrest and by many projects of social reconstruction. Hence, it is not altogether surprising that 101 schemes of profit-sharing or co-partnership were started in these two years. But the numbers fell to 13 in 1921, 7 in 1922, 8 in 1923, and only 6 in 1924. The effect of the great impulse given to the movement in the four years 1889-92 was very largely lost during the long period of stagnation which followed, the number of new schemes being barely sufficient to make up for wastage. There was, in fact, an actual decline in the number of schemes remaining in existence between 1896 and 1899 ; and no net increase, on balance, during the whole of the period between 1890 and 1907.

*Profit-sharing Schemes which have been terminated.*

The average duration of those of the 251 terminated schemes whose length of existence is known, was slightly over eight and a half years. One-third of them came to an end before the fourth, and half of them before the seventh year of the experiment. These figures tend to overstate the effective duration of the discontinued schemes, since, in not a few cases, bonuses had ceased to be paid, or had sunk to a very low level, for some years before the schemes were formally terminated.

It should, however, be noted that in a large number of cases the discontinuance of the scheme appears to have been due to the inability of the firm to earn sufficient profits, or to some other cause independent of the profit-sharing scheme, rather than to any defects inherent in the scheme itself. Thus, in 72 cases the discontinuance is attributed to such causes as want of financial success, losses, diminution of profits, or liquidation, and in 37 cases to reasons such as death of employer, sale or lease of farm or business, employer giving up business, change of management, and the like. In seven cases the scheme was dropped at the time of the conversion of the business into a limited liability company, or owing to special circumstances connected with such conversion. Six schemes were abandoned for miscellaneous reasons, not of a financial nature; and in two cases the undertakings were converted into co-operative societies. In 17 other cases information as to the cause of termination is either not available or too indefinite to admit of any classification. Of the 72 financially unsuccessful schemes, 24 came to an end in the ten years 1891-1900; ten being discontinued in the three years 1891-3 alone. It will be noted that these heavy abandonments occurred towards the end of the period of expansion of profit-sharing schemes in 1889-92; and it seems reasonable to suppose that some of these failures may have represented the collapse of schemes which were started hastily and with too little consideration. In this connection it is significant that most of the schemes discontinued in the period 1920-23 were those which had been in operation for a year or two only, having been started during the period of activity in the profit-sharing movement in 1919-20.

It is not always possible to detect any close connexion between these figures and other statistics which are usually taken as criteria of good or bad trade, such as those of foreign trade or of unemployment. The year 1891, for example, in which five schemes came to an end "for financial reasons," was a fairly good year, as tested by the statistics of foreign trade or of unemployment. No doubt however, the general state of trade is not altogether without effect on the proportion of schemes terminated "for financial reasons." It is noticeable, for example, that no schemes are known to have been discontinued for financial reasons in the years 1901-2 or 1912-13. These were both periods of low unemployment, and 1912-13 were also years of great activity in foreign trade. On the other hand, the number of schemes terminated "for financial reasons" was above the average in the bad years 1893 and 1908-9, and also in the years 1920-21.

To the 72 schemes discontinued for financial reasons should perhaps be added two cases in which the pressure of other claims (Workmen's Compensation Act, and "increased taxation") were mentioned as causes of termination. In another case the reasons given were government control, coupled with increases in wages and war bonuses.

There remain 107 cases in which profit-sharing appears to have been abandoned because the scheme itself failed to give satisfaction. In 72 of these cases the cessation of profit-sharing was attributed to the dissatisfaction of the employers with the results of the scheme, the apathy of the workpeople being often mentioned by employers as the reason for this dissatisfaction. In 19 other cases the employers discontinued profit-sharing in favour of bonuses not on a profit-sharing basis, or gave their employees other benefits in lieu of profit-sharing (old age pensions ; increased wages ; shorter hours). In 15 cases the discontinuance was attributed by employers to the dissatisfaction of the employees, opposition of the trade unions, or like causes ; and in one case to the opposition of both the employers' and the workpeople's organisations.

#### *Existing Schemes.*

It would appear that, apart from some isolated cases and two general exceptions, the schemes existing in this country are too recently established, and too few, to allow of any very confident conclusions as to the value of the system. The two general exceptions are the deposit schemes and the schemes in existence in gas undertakings.

Deposit schemes, by which the employee is allowed to deposit money in a savings bank established by the firm, receiving a rate of interest which varies with the profits, have shown a high degree of stability. Schemes of this nature, however, are scarcely examples of profit-sharing in the ordinary acceptance of the term ; and in any case only a minority of the employees of the firms involved have usually taken advantage of such arrangements.

The gas industry affords the only instance in this country of an industry which has been very largely reorganised on a profit-sharing and co-partnership basis, so far as private undertakings are concerned. The wide extension of profit-sharing in gasworks has probably been assisted by the very special conditions of the industry, which has a local monopoly, and an assured demand for its product, and in which the dividends payable are strictly regulated under the sliding scale system. Unquestionably, however, the extension has partly been due to the strong advocacy of the system by the late Sir George Livesey, at one time the chairman of the South Metropolitan Gas Company, the pioneer of profit-sharing in gas undertakings, and to his diligent fostering of the scheme after its introduction. The majority of schemes in gas companies have been modelled on the lines of the South Metropolitan Company's original scheme, and provide for a bonus on employees' wages at a rate varying inversely with the price charged for gas ; and the schemes usually provide for part or the whole of the bonus to be retained for investment, on behalf of the employees, in the company's capital.

*Trades in which profit-sharing has been tried.*

Outside the gas industry only a small minority of firms have adopted any form of profit-sharing or co-partnership, and in most groups of trades the schemes terminated outnumber those that have survived. The following table shows the total number of schemes known to have been started, and the numbers terminated and surviving, in each of certain groups of trades :—

Nature of Industry or Business.	Total number of schemes started.	Number of Schemes.			Approximate total number of employees of firms with schemes still in operation.
		Terminated.	Suspended but not definitely terminated.	Still in active operation.	
Agriculture .. ..	30	21	1	8	800
Engineering, Shipbuilding and other Metal ..	70	35	—	35	57,000
Textile .. ..	34	10	—	24	43,000
Food and Drink (manufacture) .. ..	46	21	1	24	37,000
Paper, Printing, Bookbinding, Publishing, &c. .. ..	55	34	1	20	7,000
Glass, Chemical, Soap, Oil, Paint, &c. ..	25	12	—	13	43,000
Gas, Water and Electricity Supply ..	47	8	2	37	40,000
Banking, Insurance and other Financial Businesses .. ..	8	—	—	8	36,000
Merchants, Warehousemen and Retail Traders .. ..	81	45	1	35	32,000
Other Businesses ..	97	65	—	32	44,000
Totals .. ..	493	251	6	236	339,800

In connection with the existing schemes shown in the above table, it will be observed that the firms involved employ a total of about 340,000 workpeople; but only some 172,000 of these workpeople are eligible to participate in the benefits conferred by the schemes. This arises from the fact that in a considerable number of schemes participation is restricted to certain classes of employees, or is available only to those who are able and willing to make deposits or to take up shares; and that in most schemes the employees have to fulfil certain conditions, such as serving for a specified minimum period, in order to qualify for benefit.

One-half of the total number of schemes started in the engineering, shipbuilding, and other metal trades still survive. Reckoned by

numbers employed, this is the largest of the groups of existing schemes shown in the table. The figures are somewhat misleading, however, from this point of view, as the group includes several "deposit" schemes in large firms, only a minority of whose work-people have taken advantage of the offer. The number actually participating in profits in this group of trades is, accordingly, much smaller than the total number of employees.

The figures for the textile trades show that 24 schemes survive out of a total of 34, about 43,000 persons being employed by the firms at whose works these schemes are in operation. This group of schemes includes that of Fox Brothers & Co., Ltd., the oldest, with one exception, of all those now existing in this country; and that of J. T. & J. Taylor, Ltd., of Batley, under which much more than half of the Company's shares are now held by employees. The scheme in operation at the largest firm in this group, however, is a "deposit" scheme; and less than 1,000, out of a total of nearly 14,000 employees, actually participate therein.

All of the eight schemes started in banking, insurance and other financial businesses still remain in operation, but with one exception these schemes are of very recent origin.

A number of Co-operative Societies are known to practise profit-sharing with their employees, but these schemes are not included in the statistics given in this memorandum. The figures given are exclusive, also, of the wages agreement of 1921 in the coal-mining industry, which is sometimes described as a profit-sharing arrangement.\*

#### *Size of Profit-sharing Firms.*

Profit-sharing (or co-partnership) is found in firms of all sizes, as will be seen from the following statement relating to the schemes in force :—

Schemes in operation with firms having—	Per Cent. of Total Number of Schemes.
Not more than 25 employees .. ..	4
More than 25, but not more than 100 employees	23
More than 100 " " 250 " "	20
More than 250 " " 500 " "	14
More than 500 " " 1,000 " "	13
More than 1,000 employees .. ..	26

\* See pp. 110-2.

*Prevailing Types of Schemes.*

The following table illustrates the variety of the types of schemes in existence :—

1. Schemes consisting in the allocation to employees of a bonus dependent on profits or dividends,* the bonus being :—	
(a) Paid in cash or credited to a savings account from which sums may be withdrawn at short notice ..	111
(b) Retained in a provident, superannuation, &c., fund .. .. .	9
(c) Paid in, or retained for investment in, shares or other capital of the undertaking .. .. .	16
(d) Retained for investment for a prescribed period (or until employee has acquired a prescribed holding), then part so retained and part paid in other ways ..	17
(e) Combinations of above, and other methods of payment .. .. .	32
2. "Deposit" schemes, i.e., schemes under which interest, varying with the profits, is allowed on deposits made by employees .. .. .	20
3. Schemes which admit employees to participation in the profits by virtue of the issue to them of share capital, either free, or on specially favourable terms as to price or dividend .. .. .	37
Total .. .. .	<u>242</u>

It will be seen that the predominant type of scheme is that which provides for the allocation to employees of a proportion of profits, and for its distribution to them in the form either of a cash payment or of a credit to a savings account. Indeed, in industries other than the gas industry, this type of scheme accounts for one-half of the total number of schemes in existence. These schemes, however, do not form a homogeneous class ; in fact, even those classified to the " payment in cash " group, include all the following diverse methods of payment :—

- (a) Bonus paid in cash.
- (b) Bonus paid in cash, but employees may leave bonus on deposit with the firm.
- (c) Bonus paid in cash, but special facilities given to employees to subscribe for shares in the employing company.
- (d) Bonus paid in cash, but employees have the option of taking part of their bonus in shares.
- (e) Bonus paid in cash, but employers reserve right to pay in the form of shares in the business.

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\* Under many schemes a certain reserved minimum of profit or dividend (sometimes called " the reserved limit ") must be reached before any bonus becomes payable and, in the majority of such cases, the bonus is a proportion of the profits, if any, in excess of this minimum.

(f) Bonus paid in cash, or may be invested in a Provident Fund established by the firm, at option of employee.

(g) Bonus paid in cash, or credited to trustee account for purchase of shares, at option of employee.

The next largest group, numbering 37, is that of schemes the central feature of which is the issue of shares, either free or on specially favourable terms, to employees. This type of scheme appears to be coming into increasing prominence, a considerable number of the more recent experiments in sharing profits with employees, particularly in large concerns, having taken this form. The number of shares actually issued does not, in this type of scheme, bear any necessary relation to the profits of the firms. The employees' "bonus," or portion of profits, consists, not of the shares themselves, but of the dividends on these shares, if issued free; or, if the shares have been acquired on specially favourable terms, the "bonus" consists of that portion of the dividends which represents the advantage enjoyed by the employee-shareholder over the ordinary investor.

This type of scheme differs substantially from another type under which employees also acquire shares in the capital of the firm, but by a different method. Under this second type a portion of the profits is allocated to employees, but, instead of being paid in cash, is either paid in the form of shares, or is compulsorily retained by the employing concern for investment in its capital. In some schemes the bonus is always treated in this way, while in other cases the retention of the whole bonus is not enforced after a certain period, or so soon as the employee has a stated amount of capital to his credit. The gas industry has specialised in this "bonus-capitalisation" type, and no fewer than 22 out of a total of 33 such schemes are in operation with gas companies. Outside the gas industry, this type, though not very common, include the well-known scheme of Lever Bros., Ltd. For many years, too, the bonuses paid by Messrs. J., T. & J. Taylor, Ltd., were capitalised, but during the war the Company gave part of the bonus in the form of Exchequer Bonds or War Loan instead of capitalising it, and at the present time employees have the option of taking their bonus in cash or in shares. It should be added that in addition to the 33 schemes above mentioned, in which the employees' bonus is wholly capitalised, provision is made in 20 other cases, including 14 gas companies, for some part of the bonus to be capitalised.

#### *Bonuses paid.*

In the case of a considerable number of schemes, information is available as to the bonuses paid or credited to employees for a number of years. The financial results of some of the old-established schemes, as measured by the bonuses paid to employees, are very considerable. Thus, the South Metropolitan Gas Company, whose



scheme has been in operation for 35 years, have paid about £900,000 in bonuses during that period; and the employees have £600,000 invested in the Company's shares or deposited in the hands of the Company at interest. Messrs. Lever Brothers, Limited, in the fifteen completed years of their co-partnership, have distributed over £1,800,000. The employees of Messrs. J. T. & J. Taylor, Ltd., now own more than half the capital of the undertaking, and in bonuses and dividends on their shares they receive nearly three-quarters of the total profits. Messrs. Clarke, Nickolls & Coombs, Ltd., have distributed in 34 years a sum of nearly £500,000; and their bonus for more than 25 years has never fallen below 10 per cent., and has on several occasions amounted to more than 20 per cent. addition to the earnings of the recipients.

These examples indicate that profit-sharing schemes are capable, under favourable conditions, of giving substantial benefits to the workpeople employed. Such results, however, are exceptional, and the financial benefits to employees under the schemes, taken as a whole, are less striking. The average rate of bonus paid, in all the schemes for which particulars can be given, varies within very narrow limits from year to year, and the average for the whole period 1901-24 inclusive, was equivalent to an addition of 5·2 per cent. to the earnings of those participating. In every year there have been a considerable number of schemes which have paid no bonus at all; in the three years 1921-3, more than one-third of the schemes, on an average, failed to pay a bonus; while in 1924 no bonus was paid in one-quarter of the schemes for which particulars were received.

The following table gives particulars of the bonuses paid during the period 1913-24, under those schemes for which the particulars were available:—

Year.	Number of schemes to which particulars relate.	Average Bonus Paid. (Including schemes under which no bonus was paid.)	
		Amount per head.	Percentage addition to earnings.
1913 .. .. .	111	£ s. d.	Per Cent.
1914 .. .. .	117	5 6 0	5·9
1915 .. .. .	99	5 4 9	6·7
1916 .. .. .	99	3 18 0	5·3
1917 .. .. .	101	3 4 3	4·6
1918 .. .. .	105	3 15 2	5·3
1919 .. .. .	107	3 13 9	5·1
1920 .. .. .	120	5 0 8	4·9
1921 .. .. .	155	9 18 9	6·4
1922 .. .. .	175	6 14 5	3·6
1923 .. .. .	175	6 6 9	3·9
1924 .. .. .	175	7 7 1	5·1
1924 .. .. .	174	8 3 2	4·9

*Employees' Share in Capital and Control.*

Except in the case of a few leading schemes, no information is available as to the extent to which employees own capital at the present time in the undertakings by which they are employed. In the "Report on Profit-sharing," issued by the Ministry of Labour in 1920, details were given as to the amount and nature of the capital held by employees of firms then practising profit-sharing, including both that acquired under the profit-sharing or co-partnership scheme, and other investments by employees. These figures tended to show that, although in a very few schemes employees held a fairly considerable proportion of the capital, in the great majority of cases the proportion of capital held by employees was insignificant. In view of this, and of the further fact that quite frequently employees' shares do not confer any voting rights upon their holders, it is clear that the proportion of votes which might be given at a shareholders' meeting by the employees, in virtue of shares held by them, is almost negligible in all but a very small number of cases.

Some advocates of profit-sharing and co-partnership have been accustomed to attach importance to the employees acquiring control in this manner, in the expectation that the employees would be able, as shareholders, to gain an insight into the commercial and financial problems with which the employer has to deal. It is open to question, however, for a number of reasons, whether the shareholders' meeting is the best medium through which the employees may exercise that control and gain that knowledge. It seems that any organisation formed in connexion with a profit-sharing or co-partnership scheme for the purpose of enabling the employees to confer with the directors, or to participate in the control of the conditions of their employment, should preferably be such as can be summoned rapidly, and either at frequent intervals or as often as occasion requires. It would, also, appear advisable that such a body should meet at or near the works, and not, as often happens in the case of a shareholders' meeting, at a business centre remote from the works.

This necessity for keeping the employees in intimate touch with the business has been met in various ways. It is very usual for a firm with a profit-sharing or co-partnership scheme to have a general meeting of the employees once or twice a year, at which the bonus for the year is announced, and the heads of the firm discuss the difficulties which the firm has met during the past year, the prospects for the coming year, and so on. Messrs. J. T. & J. Taylor, Limited, may be taken as an example. This is a private limited company, with no outside shareholders; there is, however, an annual meeting of employee-shareholders—all the employees are actual or prospective shareholders—at which the head of the firm reviews the history of the past year and deals with future prospects. The

proceedings are exactly similar to those of an ordinary shareholders' meeting, except that the chairman announces the bonus payable under the profit-sharing scheme, instead of putting to the vote of the shareholders the directors' proposals as to dividend; and, also, that a much larger proportion of the shareholders, and those much more deeply interested in the concern, are present than at an ordinary shareholders' meeting. Messrs. Lever Brothers, Messrs. Clark, Nickolls & Coombs, and other firms, have similar annual meetings of their employees.

Another method, perhaps even more useful, of interesting the employees of a co-partnership or profit-sharing firm in the business, of keeping them informed of its financial position, and of giving them some control over the working of the profit-sharing or co-partnership scheme itself, is to establish a special co-partnership committee. Practically all the profit-sharing gas companies, and a large number of other firms having profit-sharing schemes, have co-partnership committees, which are primarily set up to administer the profit-sharing or co-partnership scheme, but which generally have other duties as well, such as supervising the working of pension schemes, provident clubs, and the like, or suggesting improvements in "welfare" work, or in details of factory management, and so on. In fact, it would appear that those committees upon which the greatest amount of responsibility has been placed have been among the most successful. An increase in the responsibilities of a co-partnership committee has the great advantage of necessitating frequent meetings, and thereby keeping alive interest in the co-partnership scheme. This helps to solve one of the great difficulties confronting schemes of profit-sharing and co-partnership—that of maintaining interest in the scheme in the long interval between one declaration of bonus and another.

#### *Other results of profit-sharing and co-partnership.*

It would be misleading to judge profit-sharing or co-partnership solely by the financial results, or by the amount of control which they enable the employees to exercise through the shareholders' meeting or through co-partnership committees. It is important to note also how far, in the view of the parties concerned, the various schemes which have been tried have achieved the wider object of harmonising the interests of employer and employee.

A majority of the employers who made returns to the Department in connection with the Report of 1920 expressed satisfaction with the result of the schemes then in operation; but an appreciable minority expressed some measure of disappointment. The commonest complaints were that the stimulus which the scheme was intended to give reached only a minority of the employees; or that the stimulus which it gave at its first inception wore off as time went on; or that the employees came to look on the bonus as

a matter of course in good years, while in bad years, when it was not forthcoming, there was great discontent. The same complaint was made by some of the firms whose schemes had been discontinued; here the failure of the scheme to supply and maintain the hoped-for stimulus had been so manifest as to lead to its termination. It is noteworthy that some of the firms who were reported, as a result of special enquiries made in 1912 and 1920, as having discontinued their schemes owing to "dissatisfaction with the results," or owing to the "apathy of the employees," were reported, in an earlier enquiry made in 1894, as being at that time highly satisfied with the success of the system.

On the whole, the evidence available appears to suggest that if an employer introduces a scheme of profit-sharing with the object of stimulating his workpeople to increased zeal and exertion, and maintaining the stimulus for a long period of years, he is not unlikely to be disappointed. In the first place there is the danger that, owing to a decline in profits, the bonus may fall to a very low level, or even cease to be payable entirely; and, except in a very well-established scheme, such a decline in the bonus, especially if long continued, may well be fatal to the scheme. Another difficulty which is often mentioned as leading to a loss of interest is the fact that the bonus, in most schemes, is payable only once a year; employers frequently state that it requires an unusual degree of foresight to make a workman put forth exceptional efforts, or take special care to avoid waste, for the sake of a reward which may or may not be forthcoming eight or ten months later. Hence some firms prefer to pay the bonus half-yearly or quarterly or even monthly; and it is known that one firm actually pays part of the bonus at weekly intervals, during the year following that when the bonus was earned.

On the whole question of "stimulus" or "incentive," the following remarks of an employer, whose scheme came to an end in 1905, owing to his retiring from business, are of interest:—

"The small and uncertain amount of dividend available cannot be considered an element having much influence in the mere aspect of self-interest. I made the arrangement rather for my own satisfaction, as a matter of good feeling, and I think it is accepted in the same light. . . . But I did not commence it with any anticipation of being recouped, and I venture to think that any such object would go far to defeat itself."

This is in accordance with the view which has more recently been expressed by certain employers in whose business profit-sharing or co-partnership schemes are in operation. This view is that the monetary aspect of the scheme is not its most important aspect, but that its value is rather to be found in its position as a part of a whole system of arrangements for interesting the employees, and

in giving an opportunity for the presentation to the employees at frequent intervals of detailed statements as to the progress of the business and as to its financial position. According to this view, profit-sharing is rather a mode of creating harmony throughout the works than a direct stimulus to effort.

*Attitude of the Trade Unions.*

It is perhaps significant of the general attitude of trade unions to schemes of profit-sharing and labour co-partnership that, so far as is known, the initiative in formulating such schemes has always come from the employers, and not from the workpeople. Trade Unions have indeed, on occasion, strongly resisted the introduction of such schemes. The failure to introduce the profit-sharing scheme proposed by the Thames Ironworks and Shipbuilding Co., in 1889, was largely due to the opposition of the Trade Unions. When the South Metropolitan Gas Company's present scheme, which is among the most successful of those now in operation, was introduced in 1889, the Gas Workers' Union manifested strong aversion to it on a variety of grounds, the most important being that the scheme was likely to induce men to leave the union, and that men bound by twelve-monthly agreements, as provided for in the scheme, would find it impossible to strike with effect. Accordingly the union insisted that the profit-sharing scheme should be abolished, or that the men who had accepted it should be removed from the works; and to enforce this demand over 2,000 men, practically the whole of the company's stokers, came out on strike in December, 1889. The Company filled the places of the strikers; and the strike, having virtually worn itself out, came to an end in February, 1890. After the co-partnership scheme at the works of Lever Bros., Ltd., had been established for nine or ten years, and had distributed substantial bonuses, one of the trade unions concerned attempted to expel those of its members who were participating in the scheme, under the provisions of a rule of the Union to the effect that it should be competent to expel any member "working on a co-partnership system when such system makes provision for the operatives holding only a minority of shares in the concern." The members concerned brought an action against the union, and after the case had been taken to the Court of Appeal and to the House of Lords, it was finally decided against the union.

Few Trade Unions have carried their hostility so far as this; and in the old-established gas companies' schemes in particular there is abundant evidence that the workpeople directly concerned regard with favour the profit-sharing or co-partnership schemes under which they work. Nevertheless, it is admitted, even by strong supporters of the system, that, with some individual exceptions, the attitude of the Trade Unions generally towards profit-sharing and co-partnership has been, on the whole, either unfavourable, or, at best, indifferent.

At the Trades Union Congress of 1923, a resolution in the following terms was moved by a delegate representing the National Union of Distributive and Allied Workers :—

“ That this Congress, believing that capitalist attempts to introduce forms of co-partnership are designed to mislead the workers and to prevent Trade Union solidarity, instructs the General Council to explore all working of the various labour co-partnership and profit-sharing concerns in the kingdom with a view to reporting upon their advantages or disadvantages to the next Trades Union Congress.”

The resolution was agreed to, but no report appears to have yet been published. At the Congress of 1925 a further resolution hostile to profit-sharing was carried.

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#### INDUSTRIAL DISPUTES INVOLVING STOPPAGE OF WORK.

[*Furnished by the Ministry of Labour.*]

On the occurrence of a stoppage of work owing to a dispute, enquiries are addressed by the Ministry of Labour to the employers or their associations and to the trade unions concerned, asking for particulars. The present memorandum gives a summary of certain of the information so collected in regard to the duration and magnitude, the causes, results, and methods of settlement of industrial disputes resulting in stoppages of work in Great Britain and Northern Ireland. It should be explained at the outset that disputes involving less than ten workpeople, and those which lasted less than one day, are omitted from the statistics given except when the aggregate duration (i.e. the number of workpeople multiplied by number of working days) exceeded one hundred days. It should also be mentioned that workpeople involved in more than one dispute during the year are counted more than once in the totals for the year; the extent of such duplication, however, is not very considerable in most years, the highest figure being that of 300,000 in the year 1920.

##### *Duration and Magnitude.*

The following table shows the total number of disputes, involving stoppages of work, in Great Britain and Northern Ireland, reported to the Department as beginning in each of the years 1893-1924, together with the number of workpeople involved in these disputes, and the aggregate number of working days lost in all disputes in progress during the year (irrespective of the date of commencement) at the establishments where the disputes occurred. The numbers of workpeople shown as “directly” involved are those actually on strike or locked out; those shown as “indirectly” involved

are workpeople who, though not themselves on strike or locked out, were thrown out of work, owing to the disputes, *at the establishments where the disputes occurred.* The "aggregate duration" is obtained by multiplying the number of workpeople directly and indirectly involved by the number of working days from the beginning to the end of the strike or lock-out, allowance being made for any increase or diminution in the number involved owing to the extension of the dispute on the one hand, or to the gradual replacement of the workpeople involved, or to their finding work elsewhere, on the other.

Year.	Number of disputes beginning in year.	Number of workpeople involved.			Aggregate duration in working days of all disputes in progress during the year.
		Directly.	Indirectly.	Total.	
1893 .. ..	599	597,000	37,000	634,000	30,440,000
1894 .. ..	903	254,000	68,000	322,000	9,510,000
1895 .. ..	728	205,000	54,000	259,000	5,700,000
1896 .. ..	906	142,000	50,000	192,000	3,560,000
1897 .. ..	848	166,000	63,000	229,000	10,330,000
1898 .. ..	695	199,000	53,000	252,000	15,260,000
1899 .. ..	710	137,000	42,000	179,000	2,500,000
1900 .. ..	633	132,000	53,000	185,000	3,090,000
1901 .. ..	631	111,000	68,000	179,000	4,130,000
1902 .. ..	432	115,000	140,000	255,000	3,440,000
1903 .. ..	380	93,000	23,000	116,000	2,320,000
1904 .. ..	346	56,000	31,000	87,000	1,460,000
1905 .. ..	349	67,000	25,000	92,000	2,370,000
1906 .. ..	479	158,000	60,000	218,000	3,020,000
1907 .. ..	585	100,000	46,000	146,000	2,150,000
1908 .. ..	389	221,000	72,000	293,000	10,790,000
1909 .. ..	422	168,000	129,000	297,000	2,690,000
1910 .. ..	521	384,000	130,000	514,000	9,870,000
1911 .. ..	872	824,000	128,000	952,000	10,160,000
1912 .. ..	834	1,232,000	230,000	1,462,000	40,890,000
1913 .. ..	1,459	497,000	167,000	664,000	9,800,000
1914 .. ..	972	326,000	121,000	447,000	9,880,000
1915 .. ..	672	401,000	47,000	448,000	2,950,000
1916 .. ..	532	235,000	41,000	276,000	2,450,000
1917 .. ..	730	575,000	297,000	872,000	5,650,000
1918 .. ..	1,165	923,000	193,000	1,116,000	5,890,000
1919 .. ..	1,352	2,401,000	190,000	2,591,000	34,970,000
1920 .. ..	1,607	1,779,000	153,000	1,932,000	26,570,000
1921 .. ..	763	1,770,000	31,000	1,801,000	85,870,000
1922 .. ..	576	512,000	40,000	552,000	19,850,000
1923 .. ..	628	343,000	62,000	405,000	10,670,000
1924 .. ..	710	558,000	55,000	613,000	8,420,000
<i>Averages of 1893-1924 ..</i>	<i>732</i>	<i>490,000</i>	<i>91,000</i>	<i>581,000</i>	<i>12,390,000</i>

The figures for different years show wide variations, the numbers of disputes recorded ranging from 346 in 1904 to 1,607 in 1920, the total numbers involved from 87,000 in 1904 to over 2½ millions in 1919, and the aggregate duration from less than 1½ million days in 1904 to over 40 million days in 1912 and nearly 86 million days in 1921. The high totals of aggregate days lost in the two latter years, as also in 1893, were largely due to prolonged stoppages of work in the coal mining industry.

The annual loss of working time owing to industrial disputes, during the whole period of 32 years covered by the table, averaged nearly 12,400,000 days, equivalent to less than 1 day per head of the whole employed population. In the years 1919-22 the figures were much above the average, but in 1923-25 they have fallen to considerably less than an annual average of 1 day per head of the employed population.

Of the considerable number of disputes recorded, a large proportion affect only small numbers of workpeople. This will be seen from the following table, in which the disputes beginning in the years 1910-24 are classified according to the total numbers of workpeople involved :—

Year.	Number of disputes involving the under-mentioned numbers of workpeople :—					Total.
	Under 100.	100 and under 1,000.	1,000 and under 2,500.	2,500 and under 5,000.	5,000 and upwards.	
1910 .. ..	231	221	44	12	13	521
1911 .. ..	389	376	73	20	14	872
1912 .. ..	386	373	50	13	12	834
1913 .. ..	677	652	88	27	15	1,459
1914 .. ..	520	384	53	7	8	972
1915 .. ..	383	239	34	8	8	672
1916 .. ..	287	187	36	10	12	532
1917 .. ..	309	312	66	22	21	730
1918 .. ..	528	477	93	37	30	1,165
1919 .. ..	616	541	98	45	52	1,352
1920 .. ..	818	639	101	23	26	1,607
1921 .. ..	416	285	41	10	11	763
1922 .. ..	293	239	29	8	7	576
1923 .. ..	289	277	46	7	9	628
1924 .. ..	341	297	52	7	13	710
<i>Averages .. ..</i>	<i>432</i>	<i>367</i>	<i>60</i>	<i>17</i>	<i>17</i>	<i>893</i>
<i>Percentages .. ..</i>	<i>48</i>	<i>41</i>	<i>7</i>	<i>2</i>	<i>2</i>	<i>100</i>

In every year, disputes involving less than 1,000 workpeople formed the great majority of all disputes, and in a large proportion less than 100 workpeople were involved. Over the whole period



of 15 years covered by the table, disputes involving 5,000 workpeople, or more, formed less than 2 per cent. of the total number of disputes.

Although, however, disputes involving over 5,000 workpeople form so small a proportion of the total number of disputes, they account for a large proportion of the total number of workpeople involved and of the aggregate loss of working days.

In the following table, the numbers of workpeople involved in disputes affecting 5,000 workpeople and upwards are compared with the total number of workpeople involved in all disputes beginning in each of the years under review:—

Year.	Number of workpeople involved in disputes beginning in year.		
	(a) All disputes.	(b) Disputes affecting 5,000 or more workpeople.	Percentage (b) forms of (a).
1910 .. .. .	514,000	321,000	62
1911 .. .. .	952,000	638,000	67
1912 .. .. .	1,462,000	1,202,000	82
1913 .. .. .	664,000	198,000	30
1914 .. .. .	447,000	203,000	45
1915 .. .. .	448,000	274,000	61
1916 .. .. .	276,000	125,000	45
1917 .. .. .	872,000	572,000	66
1918 .. .. .	1,116,000	672,000	60
1919 .. .. .	2,591,000	2,085,000	80
1920 .. .. .	1,932,000	1,463,000	76
1921 .. .. .	1,801,000	1,612,000	90
1922 .. .. .	552,000	390,000	71
1923 .. .. .	405,000	193,000	48
1924 .. .. .	613,000	389,000	63
<i>Averages</i> .. .. .	<i>976,000</i>	<i>689,000</i>	<i>71</i>

It will be seen that the number of workpeople involved in the relatively few disputes affecting 5,000 workpeople and upwards comprised more than 60 per cent. of the total number of workpeople involved in eleven of the fifteen years and 45 to 50 per cent. in three of the remaining four years.

#### *Causes.*

In the following table the numbers of disputes, involving stoppages of work, beginning in each of the years 1910–24 are analysed in respect of the causes from which they arose. Where more than one question was in dispute, that which appears to have been the principal cause of the stoppage has been taken for the purpose of this classification.

Year.	Number of disputes involving stoppages of work, beginning in year, arising on questions of—						Total.
	Wages.	Hours of Labour.	Employment of particular classes or persons.	Other working arrangements, rules and discipline.	Trade Unionism.	Miscellaneous	
1910 ..	296	22	79	74	39	11	521
1911 ..	557	30	139	66	72	8	872
1912 ..	528	26	143	50	66	21	834
1913 ..	956	47	231	72	129	24	1,459
1914 ..	603	28	180	56	82	23	972
1915 ..	489	17	82	18	55	11	672
1916 ..	398	16	70	22	17	9	532
1917 ..	521	4	116	42	35	12	730
1918 ..	770	25	200	73	78	19	1,165
1919 ..	857	137	196	82	51	29	1,352
1920 ..	1,079	41	259	93	89	46	1,607
1921 ..	560	31	91	40	24	17	763
1922 ..	385	18	77	52	31	13	576
1923 ..	353	16	87	52	91	29	628
1924 ..	436	13	121	58	57	25	710
<i>Averages</i>	<i>586</i>	<i>31</i>	<i>138</i>	<i>57</i>	<i>61</i>	<i>20</i>	<i>893</i>
<i>Percentages</i>	<i>66</i>	<i>4</i>	<i>15</i>	<i>6</i>	<i>7</i>	<i>2</i>	<i>100</i>

By far the largest number of disputes arose on questions of wages these accounting for more than one-half of the total in each year, and for two-thirds of all disputes in the period 1910-24. Of the remainder, disputes respecting the employment of particular classes or persons were of most frequent occurrence, with disputes arising on questions of trade unionism (the assertion or defence of trade union principle, e.g., for recognition of a trade union, or refusal to work with non-unionists) and details of working arrangements, of almost equal importance, next. Disputes arising from questions respecting hours of labour accounted for only a small proportion of the total, except in the year 1919, when a widespread movement for reductions in working hours was in progress.

If for the same period, 1910-24, the numbers of workpeople directly involved in stoppages be taken, the percentages involved in disputes due to the various causes are:—Wages, 69; hours of labour, 7; employment of particular classes or persons, 8; other working arrangements, rules and discipline, 6; trade unionism, 8; miscellaneous, 2. Thus, wages disputes claimed by far the highest percentage of workpeople directly involved.

#### *Results.*

The results of the disputes which began in each of the years under review, as indicated by the terms on which they were settled, are classified in the table which follows. Disputes classified as

in favour of employers or in favour of workpeople, for the purpose of this table, are those in which the employers or workpeople, respectively, were completely successful, or practically so, in attaining or resisting the objects which led to the stoppage of work. Disputes in which the employers, or workpeople, were partly, but not wholly, successful, are included under "compromised."

Year.	Number of disputes, the results of which were—			Total.
	In favour of workpeople.	In favour of employers.	Com-promised.	
Number of Disputes.				
1910 .. .. .	134	189	198	521
1911 .. .. .	221	273	378	872
1912 .. .. .	230	248	356	834
1913 .. .. .	425	371	663	1,459
1914 .. .. .	240	325	407	972
1915 .. .. .	157	248	267	672
1916 .. .. .	122	140	270	532
1917 .. .. .	229	161	340	730
1918 .. .. .	348	270	547	1,165
1919 .. .. .	345	306	701	1,352
1920 .. .. .	390	507	710	1,607
1921 .. .. .	152	315	296	763
1922 .. .. .	111	222	243	576
1923 .. .. .	187	183	258	628
1924 .. .. .	163	235	312	710
<i>Averages</i> .. .. .	<i>230</i>	<i>266</i>	<i>397</i>	<i>897</i>
<i>Percentages</i> .. .. .	<i>26</i>	<i>30</i>	<i>44</i>	<i>100</i>

If for the same period, 1910-24, the numbers of workpeople directly involved in stoppages be taken, the percentage involved in disputes settled in favour of the workpeople is 19, in those settled in favour of the employers 15, and in those compromised, 66.

In each year, except 1921, the number of disputes which ended in a compromise, or were only partially successful, was greater than the number which ended in favour of the employers, or the number which ended in favour of the workpeople; and in two years, 1916 and 1919, the number of compromised, or partially successful, disputes amounted to more than half the total. Taking the period of 15 years as a whole, about one-fourth of the disputes ended in favour of the workpeople, less than one-third in favour of the employers, and nearly one-half resulted in a compromise. If regard is had to the numbers of workpeople involved, the cases in which the terms of settlement indicate a compromise or only a partial success were even more predominant, about one-fifth of the workpeople being involved in disputes settled in favour of the workpeople, one-seventh in those settled in favour of the employers, and two-thirds in those which ended in a compromise. The differences between the two sets of figures appear to indicate a greater tendency to compromise in the case of the larger disputes.

*Methods of Settlement.*

The following table gives particulars as to the methods by which the disputes involving stoppages of work were settled :—

Year.	By direct negotiation between the parties or their representatives.	By Conciliation.	By Arbitration.	By return to work on employers' terms without negotiation.	Other-wise.*	Total.
Number of Disputes.						
1910 ..	357	33	25	66	40	521
1911 ..	635	80	21	67	69	872
1912 ..	620	65	22	69	58	834
1913 ..	1,129	118	24	117	71	1,459
1914 ..	717	54	27	108	66	972
1915 ..	408	44	58	105	57	672
1916 ..	343	48	68	47	26	532
1917 ..	461	87	112	31	39	730
1918 ..	747	138	177	56	47	1,165
1919 ..	1,042	83	108	54	65	1,352
1920 ..	1,184	128	62	122	111	1,607
1921 ..	573	48	20	62	60	763
1922 ..	408	54	9	59	46	576
1923 ..	478	49	22	51	28	628
1924 ..	500	76	19	64	51	710
<i>Averages ..</i>	<i>640</i>	<i>74</i>	<i>61</i>	<i>72</i>	<i>66</i>	<i>893</i>
<i>Percentages</i>	<i>72</i>	<i>8</i>	<i>6</i>	<i>8</i>	<i>6</i>	<i>100</i>

\* Cases in which the disputes ended in the replacement of the workpeople involved, or in the closing of the works, and settlements effected by legislation (e.g. the Coal Mines (Minimum Wage) Act, 1912), by Statutory Orders (e.g. under the Munitions of War Acts), or by Government decisions as regards disputes at controlled undertakings, are included under this heading.

If for the same period, 1910-24, the numbers of workpeople directly involved in stoppages be taken, the percentages involved in disputes settled by the various methods are :—By direct negotiation, 64; by conciliation, 15; by arbitration, 5; by return to work on employers' terms without negotiation, 5; otherwise, 11.

Five per cent. of the disputes were settled by replacement of the workpeople, but as these were mainly small disputes, the proportion of the workpeople involved in stoppages who lost their employment in this way was almost negligible—only about one-quarter per cent. Other methods of settlement accounted for only one per cent. of the total number of disputes, but in these disputes 11 per cent. of the total number of workpeople were involved, 7 per cent. being involved in one dispute, viz., the stoppage of 850,000 coal miners in 1912, the matter at issue being ultimately settled by the passing of the Coal Mines (Minimum Wage) Act, 1912.

DOMINION AND FOREIGN LEGISLATION FOR THE  
SETTLEMENT AND PREVENTION OF  
INDUSTRIAL DISPUTES.

PART I.

COUNTRIES WITH SOME MEASURE OF COMPULSORY ARBITRATION OR  
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DOMINION AND FOREIGN LEGISLATION FOR THE  
SETTLEMENT AND PREVENTION OF  
INDUSTRIAL DISPUTES.

[Furnished by the Ministry of Labour.]

In the present memorandum an attempt has been made to include some notes on all British Dominions and every foreign country in which statutory machinery exists for the adjustment and prevention of industrial disputes involving actual or threatened stoppage of work. The memorandum represents a summary of the information available, and is, therefore, neither an authoritative statement of the legal position nor a critical survey in which any attempt has been made to weigh the value and importance of the different forms of machinery in operation in the various countries. As will be seen from the more or less detailed accounts of the various laws, the methods adopted in the various countries differ widely, ranging from the purely voluntary, as in Great Britain, through the semi-compulsory to the absolutely compulsory; and in each of these methods there are numerous modifications. For purposes of convenient arrangement, the countries are dealt with in this memorandum under two headings, those in which some measure of compulsory arbitration or conciliation exists, and those in which mainly voluntary methods are applied.

*Part I.—Countries with some measure of Compulsory Arbitration  
or Conciliation.*

**Australia.**

*Commonwealth.*

The Commonwealth Constitution provides for the creation of a compulsory arbitration court for inter-state disputes. Under the Industrial Conciliation and Arbitration Act, 1904, for the prevention and settlement of industrial disputes extending beyond the limits of any one state, such a Court was established. The President of the Court is appointed for seven years and is selected from among the Justices of the High Court. The President is charged with the duty of trying to settle disputes, with or without the cognisance of the Court, in all cases in which his mediation appears to be in the public interest. The action of the Court is invoked by employers' or workpeople's organisations, or by the State Industrial Authority, or whenever the Registrar certifies the existence of a dispute. Agreements between parties certified by the President and filed with the Registrar have the validity of awards of the Court. If the parties do not agree the Court has to determine the dispute. All parties concerned are bound by the awards, which remain in operation for the period specified in the award or until replaced by new awards. No appeal is allowed except to the High Court on a point of law.

The Court may refer a dispute in the first instance to a conciliation committee or to a local industrial board for inquiry, and by an amending Act of 1910 this power covers other relevant issues beyond the immediate subject of the dispute referred to the Court.

In exercising his own powers the President, under the Act of 1910, may compel the attendance of witnesses at a public or private conference under a penalty of £500. Under a further Act of 1911, the President may summon any person, whether connected with the dispute or not, whose presence would be useful.

Further amendments of the Act have provided for decisions as to whether disputes extend beyond the limits of one State to be made by the High Court, and for the appointment by the Commonwealth Arbitration Court of Boards of Representatives (similar to Whitley Councils).

Lock-outs and strikes are forbidden under a penalty of £1,000. Legal proceedings, however, cannot be instituted without leave of the President, and this has never been given in the case of a strike.

Provision is made for the registration and protection of industrial organisations, and action can be taken against these for breach of the law, individual members also being liable if the property of the organisation is not of sufficient value to meet the penalty. Provision is also made for the cancellation of registration by the Court.

Until 1920, Judge Higgins, who was responsible for important minimum wage decisions, was President of the Court.

The Industrial Peace Act, 1920, is supplementary to the Industrial Conciliation and Arbitration Act. The Arbitration Court is not superseded, but the passing of this Act and the Public Services Administration Act led to the resignation of Judge Higgins on the ground that the position of the Commonwealth Court would be weakened.

The Industrial Peace Act provides for a Commonwealth Council of industrial representatives, consisting of six or eight members, equally representing employers and employees, and a chairman chosen by the representatives or appointed by the Governor-General. Provision is also made for the establishment by the Governor-General of district councils and of special tribunals. The powers and functions of the Commonwealth Council include the following:—

- (1) To consider any matters in any part of the Commonwealth leading or likely to lead to industrial disputes, or in any way affecting or likely to affect industrial peace.
- (2) To enquire into any industrial matter put before it and to declare its opinion thereon.
- (3) To confer with any person or association as to principles affecting the prevention or settlement of industrial disputes.
- (4) To appoint committees of inquiry.
- (5) To make reports to the Governor-General.

The Council may summon any person for the purpose of conferring or giving evidence. The powers and functions of the district councils are, in their respective areas, similar to those of the Commonwealth Council.

Special tribunals may consider any dispute referred to them by the parties concerned, but no dispute as to which a plaint is pending in the Arbitration Court, and of which the hearing has been commenced, may be referred to a special tribunal. If a special tribunal finds that abnormal circumstances have arisen which affect the fundamental justice of any terms made by the Court, the tribunal may set aside or vary the terms so affected. Any order or award of the special tribunal, and all agreements made before a special tribunal, or at a compulsory conference, and filed with the Industrial Registrar, are enforceable as Court awards.

The Act also provides for the appointment by the Governor-General of local boards, consisting of a chairman and one representative of each side, which are to take cognisance of any industrial disputes referred to them by the parties, or by a special tribunal. Any determination of a local board is subject to review by a special tribunal. The Commonwealth Arbitration Court during the currency of the award or order of a special tribunal, or local board, may not make an award or order inconsistent with it.

Contravention of the Industrial Peace Act is punishable by imprisonment for not more than six months, or by a fine not exceeding £100, or both.

By the Public Services Arbitration Act, 1920, provision is made for arbitration upon all cases relating to salaries, terms or conditions of employment of officers and employees of the public service, and any public servant who takes part in anything in the nature of a strike is liable to forfeit all privileges, including pension and superannuation rights, and incurs a penalty of £10.

#### *New South Wales.*

Legislation relating to strikes and lock-outs in New South Wales has been in operation since 1892 when, following the continued industrial unrest during 1890-2, the Trade Disputes Conciliation and Arbitration Act was passed. This provided for councils of conciliation and arbitration, but neither the reference of cases nor the acceptance of awards was compulsory. By the Conciliation and Arbitration Act, 1899, provision was made for public inquiry into disputes by certain Judges with powers of compulsion as to evidence, and for the appointment of arbitrators by agreement between the parties. Arbitration, however, was not compulsory.

Compulsory arbitration was introduced in the Industrial Arbitration Act, 1901, under which, as regards organised industry, a Court of Industrial Arbitration was constituted with powers to make an



award fixing a minimum wage and regulating conditions of employment, and to determine all industrial matters involving or likely to involve a dispute. The Court consisted of a Judge of the Supreme Court, one employers' representative and one representative of workpeople, and was appointed for three years.

Strikes and lock-outs and their instigation were prohibited—

(a) before a reasonable time for reference to the Court had elapsed.

(b) during the proceedings of the Court.

Substantial penalties were provided and the property of a corporation, person, union or branch was subject to such penalties. This Act dealt with disputes which had arisen, and was superseded by the Industrial Disputes Act, 1908, which provided for the determination of conditions of employment and came into operation whether a dispute was in progress or not.

In addition to an Industrial Court, this Act provided for the constitution of Boards, composed of a chairman and two or four other members representative of employers' and workpeople's organisations, to determine conditions in their industries. The appointment of Boards could be recommended by :—

(a) Employer or employers of not less than 20 workers, or industrial union.

(b) Registered trade unions with not less than 20 members in industry.

(c) Industrial Court.

The Chairman was nominated by a majority of representative members of the Boards, or failing this, by the Governor. Awards of Boards, awards of the Industrial Court on appeal from Boards and filed agreements were made enforceable. Twenty-one days' notice of intended changes in wages or hours was required. Strikes and lock-outs were absolutely prohibited.

The above Acts were superseded by the New South Wales Act, 1912, which, with further amending Acts, established a Court of Industrial Arbitration with provision for District Courts to prevent delay, which had caused difficulty under previous legislation. The Court consists of a Judge and a Deputy Judge, sitting alone or together, with assessors to deal with questions of fact and other matters. There is a right of appeal, by permission of a Senior Judge, to a Court composed of three Judges. The Court is empowered to exercise functions of industrial or demarcation boards and to take matters out of their hands. Boards can be constituted by the Minister, by direction of the Court, for any industry, section of industry or combination of industries. The Chairman is appointed by the Minister on the recommendation of the Court, and there are two or four representative members who are or have been *bona fide* engaged in the industry concerned. Provision is also made for special Demarcation Boards.

The Boards proceed by reference from the Court or the Minister. The Board may then institute inquiries with a view to settlement and has powers to enter premises and inspect books and to compel the attendance of witnesses.

Boards have power, subject to appeal, to make awards fixing minimum rates of wages for normal workers, number of hours and their distribution, payment for overtime and holidays, number of apprentices and improvers, deductions for board and residence, quantity of work to be done, and to determine any industrial matter. They are, however, directed, as far as is consistent with the maintenance of industrial peace, to deal only with wages and hours of employment, "leaving all other matters to shop committees, conciliation committees, industrial councils or voluntary committees formed for the purpose of adjusting the industrial relationship of employer and employee."

Subject to appeal, awards of Boards are binding on all persons engaged in the industries concerned and in the locality specified.

The Boards are subject to the general control of the Court of Industrial Arbitration, which co-ordinates their work; and, in order to prevent overlapping, the amending Act of 1916 provided that *all* applications should be referred to the Court, the Boards exercising their functions only in respect of applications and references which, for special reasons, the Court returns to them. The following table illustrates the extent to which the functions of the Boards have been transferred to the Court.

	Awards made by Boards.				Awards made by Court.			
	Principal.	Variation.	Principal.	Variation.	Principal.	Variation.	Principal.	Variation.
1915 ..	116	.. 96	..	1	..	90		
1916 ..	151	.. 135	..	—	..	66		
1917 ..	169	.. 99	..	7	..	127		
1918 ..	18	.. 15	..	75	..	116		
1919 ..	3	.. 2	..	106	..	88		
1920 ..	5	.. 1	..	136	..	269		
1921 ..	9	.. 1	..	104	..	290		

Conciliation machinery was a new feature introduced in the 1912 Act, the appointment of Conciliation Committees with the duty of trying to effect a settlement being provided for. Agreements thus reached have the effect of an ordinary industrial agreement.

Industrial Agreements are made binding for the term specified therein, or until varied. The Court, however, is given power to vary wage provisions on the application of any party.

Up to the passing of the 1912 Act the Minister or his deputy had intervened in disputes. Provision was made by the Act for the appointment of a Special Commissioner with power to summon a conference in order to seek a settlement of a dispute. A penalty is prescribed for refusal to attend a conference. Either under the

original, or in amending Acts, mainly in the Act of 1918, the provisions as to strikes and lock-outs are as follows. Strikes are declared to be illegal under penalty of a fine not exceeding £1,000 in the following cases :—

(a) Crown and Public Authority employees, including Harbour, Water and Fire Authorities, Metropolitan Meat Industry Board employees and the employees of Naval and Military contractors.

(b) Employees in industry covered by an award or agreement. (A majority in a secret ballot of members of a union in which two-thirds of the members take part may render an award no longer binding.)

(c) Strikes commenced prior to 14 days' notice in writing of intention to commence the strike or of the existence of such conditions as would be likely to lead to a strike.

The Minister may, during a strike or before a threatened strike, order a secret ballot as to continuance or commencement of a strike. There are stringent conditions as to obstruction, opposition or failure to assist. Newspapers are liable to a penalty for advising, aiding or abetting an illegal strike. Penalties are prescribed for illegal picketing or "blacking" of commodities, breaches of awards or agreements, unlawful dismissal or victimisation.

No industrial agreement or award may provide for less than the living wage prescribed by the State Board of Trade.

#### *Queensland.*

Under the Industrial Arbitration Act of 1916 (amended in 1923), which supersedes legislation from 1892 onwards, conditions are regulated by a Court of Industrial Arbitration and by Industrial Boards, constituted on the recommendation of the Court.

The Court consists of not more than three Judges, who may be Judges of the Supreme Court or District Judges. A single Judge may constitute the Court. The Court has the powers of a Supreme Court as well as those under this Act.

The Court is empowered *inter alia* (a) to regulate by an award the conditions of any industry with or without application being made by parties or the Minister, (b) to remit any industrial dispute to an Industrial Board for settlement, (c) to hold an inquiry into any industrial matter, (d) to make declaration regarding the cost of living, the standard of living, minimum rates of wages and standard hours.

The Act contains a definition of "minimum wage," and the awards of the Court and Industrial Boards are limited by statutory provisions as to the length of the working week, rest periods and overtime rates. The Court may, however, prohibit or restrict overtime to relieve unemployment and extend working hours in the public interest. The Court and the Boards may compel presence of witnesses, and production of books and may enter premises.

Awards are binding on the parties and on all employers and workpeople in the calling in the locality concerned.

The Boards consist of two to four members equally representing employers and employed with a Chairman chosen by the members or, failing this, by the Minister. They deal only with cases remitted to them by the Court and their decisions are subject to appeal to the Court. Hearings are public. Special Boards may be set up for demarcation questions.

Agreements may be filed and so made obligatory and may be extended by the Court. Provision is made for the registration of industrial unions. Such registration may be cancelled on application or, in certain circumstances, by order of the Court.

Judges of the Court are empowered to convene compulsory conferences of the parties to industrial disputes and to bring about a settlement by amicable agreement, and conciliation committees may be appointed to deal with industrial cases in districts prescribed by the Minister. Such committees act by direction of the Minister. Agreements arrived at by conciliation may be registered and so made binding on all parties.

Strikes and lock-outs are prohibited in the case of organised workpeople and employers unless authorised as a result of a secret ballot by a majority of the workpeople or employers concerned, or, in the case of unorganised workpeople or employers, until authorised by the Court, after the views of the employers and employees concerned have been ascertained by secret ballot by the Registrar.

Industrial inspectors may be appointed by the Governor to investigate conditions and take proceedings in cases where awards and orders of the Court are not being observed. Power of inspection may also be given to union officials. Unions have power to recover fines and dues from their members.

#### *South Australia.*

An Act known as the Industrial Code, 1920, consolidates previous legislation from 1894 onwards relating to industrial disputes. Features of that legislation had been the establishment of Wages Boards, the compulsory extension of agreements, the prohibition of strikes and lock-outs in trades in which Wages Boards existed and the establishment, under an Act of 1912, of an Industrial Court. Provision is made for the registration of associations and for the prevention of a multiplicity of registered associations. Registration may be cancelled by order of the Court.

The Industrial Court is constituted of a single Judge as President, who may be assisted by a deputy and by two assessors. The President is empowered to summon compulsory conferences of parties to disputes. If an agreement is effected by conciliation, it may be registered and so given the binding force of an award

The Court has jurisdiction over industrial matters submitted by the Minister, by employers of at least twenty workpeople, by twenty employees in an industry, or by an Industrial Board which has itself failed to determine the matter. The Court has appellate jurisdiction in cases determined by an Industrial Board, provision being made for the regulation of its powers in this respect. The Court can compel the production of evidence. The Court has similar powers to that of the Queensland Court and similarly has the duty of fixing a minimum wage.

The Board of Industry is composed of a President (the President or Deputy President of the Industrial Court) and four Commissioners, two representatives of employers and two representatives of workpeople.

It is the duty of the Board, after inquiry, to determine the living wage to be paid to adult employees, male and female. It also groups trades and advises the Minister on the appointment and dissolution of Industrial Boards.

Industrial Boards, which replace the Wages Boards under previous legislation, may be constituted for any industry, section of industry, or group of industries, by the Minister on the recommendation of the Board of Industry. The Boards consist of two to four members of each side, not more than one of whom on each side may be persons who are not engaged in the industry concerned. The Chairman is appointed by the members or, failing this, by the President of the Board of Industry. These Boards have the most comprehensive powers to regulate conditions in their industries. Strikes and lock-outs are absolutely prohibited under a penalty of a fine not exceeding £500 or imprisonment. A penalty may be made a charge on wages. Picketing is prohibited under penalty.

The provisions as to agreements are similar to those in force in Queensland.

#### *Western Australia.*

Under the Industrial and Arbitration Act, 1912, which repealed Acts of 1902 and 1909, provision is made for the settlement of disputes by a system of compulsory arbitration. There is a Court of Arbitration constituted of a Judge as President and two other members, one nominated by the employers' associations and one by the unions of workpeople. Assessors may be appointed at the discretion of the President. This Court can determine any dispute referred to it by the parties or by either party. The President may also summon conciliation conferences, and in the event of no settlement being arrived at he may refer the matter to the Court. The Court can compel the production of all relevant evidence.

Awards or orders may be enforced by the Court, when a breach has occurred, on the application of the Registrar, an industrial inspector, an employer, or an industrial union or industrial organisation. The Court imposes any penalty it thinks fit and all property belonging to a party is liable. Members of unions are liable up to a maximum of £10 per member if the union is unable to meet the penalty. Strikes and lock-outs are prohibited, and parties who give assistance are equally liable to penalties. The penalties may be £100 in the case of an employer or union and £10 in the case of individual employees. The Act provides for the registration of societies, and that societies so registered under the Act must have rules providing that—

- (a) members shall be confined to employers or workpeople respectively,
- (b) the society shall not finance persons engaged in a lock-out or strike,
- (c) all industrial disputes not settled by agreement shall be referred for settlement under the Act.

The Act also provides that registration may be cancelled on application or by order of the President.

Industrial agreements are registered and are enforceable as in the case of awards of the Court.

#### *Victoria and Tasmania.*

In Victoria and Tasmania there is a Wages Board system which is primarily one of conciliation. These Boards fix minimum conditions which are enforceable by the Courts and, both in their cause of origin and in their form and practice, may be compared with Trade Boards in this country. Boards consist of four to ten members with an independent chairman elected by the Board, or, failing this, appointed by the Governor. The area to which a decision applies is determined by the Minister, who may extend it to the whole State.

In Victoria, failure of an organisation to observe decisions may result in temporary withdrawal of a Board. In Tasmania each failure is punishable by a fine of £500.

In 1903 a Court of Industrial Appeals was established, to which the Minister can refer determinations and which can fix rates if a Board fails to do so, or revise rates.

#### *Efficacy of Australian Legislation.*

As regards the efficacy of the Australian legislation described above, a certain amount of information can be derived from an examination of the statistics of industrial disputes in Australia given in the table on the following page:—

*Industrial Disputes—Methods of Settlement, Australia, 1913 to 1923.*

Methods of Settlement.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
	Number of Disputes.										
<i>Negotiations—</i>											
Direct between employers and employees or their representatives.	119	247	254	319	234	171	291	380	412	249	140
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act.	17	11	29	34	38	21	35	25	65	52	25
<i>Under State Industrial Acts—</i>											
By intervention, assistance or compulsory conference.	19	7	3	9	12	20	33	33	18	7	4
By reference to Board or Court..	22	17	5	10	13	14	5	8	4	7	2
<i>Under Commonwealth Conciliation and Arbitration Act—</i>											
By intervention, assistance, or compulsory conference.	4	5	2	6	3	8	9	8	11	5	2
By Filling Places of Workpeople on Strikes or Locked Out.	13	16	9	18	36	26	22	22	10	11	5
By Closing Down Establishments Permanently.	1	4	1	6	4	8	7	4	2	6	1
By Other Methods .. .. .	13	30	55	106	104	30	58	74	102	96	86
Total .. .. .	208	337	358	508	444	298	460	554	624	433	265

It is not possible, without entering into highly controversial matters, to discuss in this memorandum the much debated question of the success or failure of the compulsory procedure embodied in the Australian Acts. The following references, however, to official and unofficial statements on the subject by competent and experienced authorities and observers may be of assistance in considering the matter:—

Mr. Justice H. B. Higgins (President of the Australian Commonwealth Court of Conciliation and Arbitration): "Industrial Peace in Australia through Minimum Wage and Arbitration," published in the Monthly Review of the United States Bureau of Labour Statistics, February, 1916, p. 89.

Ditto: Statement made in the Commonwealth Court of Conciliation and Arbitration on 25th October, 1920.

The Hon. Sir Charles G. Wade, K.C. (ex-Premier of New South Wales and ex-Agent-General for New South Wales in London): "Australia: Problems and Prospects," 1919.

The Hon. G. S. Beeby (Minister of Labour and Industry, New South Wales): Speech in America on Industrial Arbitration in Australia, 1919.

Ditto: "The Legal Control of Industrial Relationships in Australia" (undated).

Lord Bryce: "Modern Democracies," 1920, Chapter LI.

"Conciliation and Arbitration," Bulletins of Indian Industries and Labour, No. 23, Government Printing Office, Calcutta, 1922.

Mr. T. W. McCawley (President of the Court of Industrial Arbitration and Justice of the Supreme Court of Queensland): Article in International Labour Review, March, 1922.

#### New Zealand.

New Zealand legislation has always embodied the principle of compulsion. Previous legislation from 1891 onwards was consolidated in the Industrial Conciliation and Arbitration Act, 1908, which has been constantly amended.

New Zealand is divided into eight Districts, for each of which there is a Conciliation Council consisting of five members. *Ad hoc* Boards may be appointed, on the application of either party, for particular disputes. Conciliation Commissioners have been appointed, to whom parties may refer disputes for a hearing by a Council or a special Board. The Commissioners, with Assessors, constitute the Councils, and have power to compel the production of evidence and to take evidence on oath, but no person is compelled to give particulars as to secrets, profits, losses, receipts, &c. If willing to give such particulars they may be given to the Commissioner alone, who can communicate his view on the claim, in the light of this evidence, to the assessors. If no settlement is reached the matter is referred to the Court of Arbitration with any recommendation the Council may care to make.



The Court of Arbitration consists of a Judge and two other members appointed by the Governor. Assessors may be appointed. It has compulsory powers as to evidence and may refer any matter to a Board for inquiry and report. Awards must be made within a month. The Court may extend an award and prescribe minimum rates of wages. It exercises what is virtually a continuous power of regulation in everything that belongs to the relation of employers and employed.

The right of unions and organisations to come within the provisions of the Act is secured only by registration.

The Act provides for registration of unions and associations, which thereby become bodies corporate, members of which can be sued for fines and dues. Provision is made for preventing multiplicity of unions in any industry or district. Unless registered, an organisation does not come within the provisions of the conciliation settlements and awards. Provision is also made for the cancellation of registration, but in any case in which conciliation or arbitration proceedings are pending, application must have been made for cancellation prior to the commencement of such proceedings.

The awards of the Court, agreements and conciliation settlements are enforceable, subject to a penalty of £100 in the case of associations and £5 in the case of workpeople. There is a right of appeal from a magistrate to the Court of Arbitration.

Strikes and lock-outs in breach of awards and agreements, or their instigation, are prohibited. The fine in the case of lock-outs may be £500. In the case of strikes the penalty may be £100 for a union and £10 for individual workpeople. In the case of certain industries such as gas, electricity, water supply, milk, coal, tramway, railways, &c., due notice in writing of intention to strike or lock-out must be given, and special penalties are fixed for a strike or lock-out without such notice, and for incitement.

In 1913 a new Act (the Labour Disputes Conciliation Act) was passed, designed to apply to workers not covered by any awards or agreements under the Act of 1908. It provided for the compulsory reference to a Conciliation Commissioner or to a Labour Dispute Committee for investigation of any dispute, notice of which had been given to the Minister of Labour. At any time after a reference to a Conciliation Commissioner, the Minister may refer the matter to a Labour Dispute Committee. The latter body consists of two to six members nominated by the parties, and a chairman appointed by the parties or the Minister. The recommendations of the Committee, failing settlement, must be published by the Minister. If a settlement is not arrived at within fourteen days of its publication, the Registrar must cause a secret ballot of the workpeople implicated

to be taken on the acceptance of the recommendations. When no recommendations have been made, the ballot is on the question as to whether a strike shall take place. Penalties are provided for action in breach of the procedure. The Registrar is also empowered to take a secret ballot during a lawful strike if requested by not less than 5 per cent. of the organised workpeople concerned. The same provisions apply to employers as regards lock-outs.

This Act permits of strikes and lock-outs taking place provided there is no award or industrial agreement in force under the Industrial Conciliation and Arbitration Act, and provided that three weeks have been allowed for an investigation and for a ballot on the question at issue. Only 23 unions have had their disputes dealt with under the Act since its inception in 1913, while there are 415 individual unions registered under the Industrial Conciliation and Arbitration Act, with 551 awards and industrial agreements in force. All the disputes dealt with in 1923 were settled without strikes taking place and without the necessity for ballots on the question of striking or accepting any recommendations made. Arising out of the fifty disputes which have been filed under the Act, only four ballots have been necessary, and in none of these cases did a strike take place in pursuance of such a ballot. In two instances an interruption of work occurred; in one case, in 1917, before the dispute was filed, and the other, in 1918 (a "go slow" policy), during the investigation. Proceedings were taken in the first case, but in the second case no action was taken owing to difficulties of evidence.

*Efficacy of the Legislation of New Zealand.*

The following statistical tables extracted from the reports of the New Zealand Department of Labour illustrate the manner in which disputes were settled during the periods 1905-09, 1910-14 and 1918-19/1921-22. Owing to the abnormal conditions prevailing during the war period—1915-18—it has not been thought desirable to include the figures for these years.

Year.	Recommendations in Conciliation.		Awards in Arbitration.		
1905	..	..	10	..	26
1906	..	..	7	..	52
1907	..	..	12	..	59
1908	..	..	15	..	98
1909	..	..	9	..	88
			53 (= 14 per cent.)		323 (= 86 per cent.)



The first measure involving any degree of compulsion was the Railway Labour Disputes Act, 1903, which was first discussed on the basis of compulsion with the prohibition of stoppages and finally took the form of giving power to the Minister of Labour to appoint a committee of conciliation and investigation on the application of either party, or of a municipality concerned, or at his own will. Nominations could be made by the parties or, failing this, by the Minister. Failing agreement by a conciliation committee, the Minister might refer the matter to an Arbitration Board with power to compel the attendance of witnesses, the production of documents and the taking of evidence on oath. The report of the Board was to be published with a view to bringing an informed public opinion to bear on the parties. These Acts were consolidated in the Conciliation and Labour Act, 1906.

In the Industrial Disputes Investigation Act, 1907 (commonly known as the Lemieux Act), the policy of a limited and temporary prohibition of strikes and lock-outs in mines and public utilities (transportation and communication,\* water, light, heat and power) was adopted. This Act provided that, wherever a dispute existed in the above industries, which the parties could not adjust, either party might make application to the Minister for the appointment of a Board of Conciliation and Investigation. Thirty days' notice of an intended change of conditions had to be given and, when a dispute had been referred to a Board, no change could be made until the matter had been dealt with.† It was an offence if any party, in the opinion of the Board, adopted the procedure "for the purpose of unjustly maintaining a given condition of affairs through delay." It was the duty of the Minister, if satisfied that the provisions of the Act applied, to establish a Board within fifteen days. The Boards were constituted of one representative nominated by each side or, failing this, by the Minister, and a Chairman nominated by the other two members, or, failing this, by the Minister. The application for a Board was required to state the parties to the dispute, the nature and cause of the dispute, with claims to which exception was taken, estimate of the number of persons directly and indirectly affected and the steps already taken to adjust the dispute. A declaration was also required to the effect that, failing agreement or reference to a Board, a strike or lock-out would occur for which the necessary authority had been obtained.

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\* Railways, however, were to be dealt with under the provision of the Conciliation and Labour Act, 1906.

† In 1923 an attempt was made to impose a penalty in connection with the prohibition of changes in conditions before a dispute has been dealt with by a Board. This was defeated in the Senate, mainly on account of opposition from the mining industry, and the prohibition remains without a penalty.

It was the duty of the Board to endeavour to bring about a settlement by inquiring into the facts, making suggestions and any other means it might think fit.

An agreement between the parties beforehand to be bound by the recommendations of a Board could be registered and made a rule of the Court and thus enforceable. Settlements reached by the Board could be similarly made binding with the agreement of the parties.

Failing a settlement it was the duty of the Board to make a report stating the facts and circumstances of the dispute and the Board's findings and recommendations for settlement. Provision was made for the publication of the report.

It was made unlawful for a strike or lock-out to take place prior to or during a reference of the dispute to a Board, but after a Board had reported, unless a finding or settlement had been reached, the parties were free to cause a stoppage of work.

The penalty for an illegal lock-out was from 100 to 1,000 dollars for each day; for an illegal strike from 10 to 50 dollars for each day an employee was on strike; and there were penalties for incitement.

The provisions of the Act became applicable to other industries if both parties agreed to the dispute being referred to a Board. In that event, it was provided that any stoppage of work should cease forthwith.

Many amendments have been made, the most important of which were those made in 1918, 1920 and 1925. During the war the scope of the compulsory clauses was extended to cover industries engaged in the production of war necessities.

In 1918 power was given to the Minister, when a stoppage had occurred, to appoint a Board on the application of any municipality, or of his own motion, or to cause an inquiry into the causes and circumstances of a dispute, without application by either of the parties to the dispute. In 1920 power was given to take action if a stoppage was imminent. The Minister was also given power to make any inquiries he thought fit into industrial matters and to take steps calculated to secure industrial peace.

Arising out of the appointment in June, 1923, of a Board of Conciliation and Investigation to deal with a dispute affecting the employees of the Toronto Electric Commissioners, the Commissioners applied for, and obtained, an interim injunction restraining the Board from interfering with the business of the Commission or from exercising powers conferred on such a Board by the Industrial Disputes Investigation Act. A permanent injunction was refused. An appeal to the Supreme Court of Ontario was disallowed in April, 1924, and the Commissioners then appealed to the Judicial Committee of the Privy Council. The Judicial Committee, in November, 1924, declared the Industrial Disputes Investigation Act not to be within

the competence of the Dominion Parliament under the terms of Section 91 of the British North America Act, i.e. the Section defining the powers of the Dominion Parliament *vis-a-vis* the provincial legislatures.

As a result of this judgment, two sections were added in May, 1925, to the Industrial Disputes Investigation Act, with the object of making clearer its original intention in certain respects. The first of the new sections states that the Act is to be restricted in application to the following disputes :—

(1) Any dispute in relation to employment upon, or in connection with, any work, undertaking or business which is within the legislative authority of the Parliament of Canada. . . .

(2) Any dispute which is not within the exclusive legislative authority of any provincial legislature to regulate in the manner provided by the Act.

(3) Any dispute which the Governor in Council may by reason of any real or apprehended national emergency declare to be subject to the provisions of the Act.

(4) Any dispute which is within the exclusive legislative jurisdiction of any province, and which by the legislature of the province is made subject to the provisions of the Act.

The second new section states that the provisions of the Act are not to be so construed as to extend the meaning of the word "employer" beyond the original definition of "any person, company or corporation employing ten or more persons and owning or operating any mining property, agency of transportation or communication, or public service utility, including, except as hereinafter provided, railways whether operated by steam, electricity, or other motive power, steamships, telegraph and telephone lines, gas, electric light, water and power works, or any number of such persons, companies, or corporations, acting together, or who in the opinion of the Minister have interests in common."

The decision of the Judicial Committee has, consequently, resulted in a limit being placed upon the scope and classes of disputes to which the Act can be applied.

There is, in addition to this Dominion legislation, some provincial legislation.

Ontario has had legislation since 1873, the most noteworthy provisions being those of the Ontario Railway and Municipal Board Act, 1906, which, in 1913, was extended to public utilities. If the parties agree to accept the Board's award and to continue work, the Board are empowered, on application being made, to investigate and determine the matters in dispute. If a stoppage of work exists or is apprehended the Board can act as mediator, and if injury to the public is threatened, the Board can, of its own motion, investigate the facts and publish findings. Under the general provisions of the Act the Board has power to operate the railways.

As regards the use of this power, annual reports of the Railway and Municipal Board for the years 1906-22 refer to five strikes in which the Board intervened, all of these being disputes between electric railway companies and their employees; in the case of the strikes on the Sandwich, Windsor and Amherstburg Railway in 1919 and the London Street Railway strike in 1920, the Board took control and operated the railways for periods of 14 and 358 days respectively. The Dominion Industrial Disputes Investigation Act is also applicable and has been utilised.

In Nova Scotia, the Miners' Arbitration Act of 1888 provided for arbitration of disputes regarding miners' wages on the application of one or both parties, the award to be obligatory. The Act was never put into operation, and was slightly amended in 1890 so that a dispute could be compulsorily referred to arbitration after one side only had been heard by a commissioner. Action has been taken under the amended Act as well as under the Dominion Act. In 1903 an Act, similar to the United Kingdom Conciliation Act of 1896,\* was passed.

In Quebec, an Act authorising conciliation and arbitration procedure was passed in 1903, but only conciliation action was taken. Compulsory reference to arbitration was provided for in the Municipal Strike and Lock-out Act, 1921, in respect of fire, water and sanitary employees, stoppages of work being prohibited pending arbitration. Awards are not enforceable.

In Manitoba, under the Industrial Conditions Act, 1919, a Joint Council of Industry was established, constituted of two members nominated by employers' organisations and two by workpeople's organisations and an independent chairman. The Council had wide powers of inquiry and power to act as a Board of Arbitration with compulsory powers as to evidence. The Council was in active operation from 1920 to 1922. The Act is now practically inoperative.

#### *Efficacy of Canadian Legislation.*

In 1912 Lord Askwith, reporting on the working of the Industrial Disputes Investigation Act for the British Government, concluded :—

“That it might be feasible in the United Kingdom, with advantage both to employers and employed, to give opportunity for such investigation and recommendation as would bring into light the real causes of difficulties, and create in the public mind and in the minds of employers and employed the opinion that, when opportunity exists by law, such opportunity should be taken advantage of, and that strikes and lock-outs ought not to be commenced, and certainly not supported by sympathetic strikes, while such investigations or recommendations are pending.”

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\* See p. 255.

Lord Askwith emphasised the value of conciliation being legally authorised in cases where the public are likely to be seriously affected by a stoppage of work. Although in some cases enquiry in Canada had actually been conducted after the stoppage of work, nevertheless the fact that an enquiry was allowed and legally authorised before stoppage was of great value. He did not suggest the adoption of the more stringent conditions of the Canadian Act. What he recommended was the principle of the Act. The last words of his report are :—

“ I consider that the forwarding of the spirit and intent of conciliation is the more valuable portion of the Canadian Act, and that an Act on these lines, even if the restrictive features which aim at delaying stoppage until after enquiry were omitted, would be suitable and practicable in this country. Such an Act need not necessarily be applied in all cases, but neither need it be confined to services of public utility. It could be generally available in cases where the public were likely to be seriously affected. Without the restrictive features, it would give the right not only to conciliate but fully to investigate the matters in dispute, with similar powers in regard to witnesses, production of documents and inspection, as are vested in a Court of Record in civil cases, with a view, if conciliation fails, to recommendations being made as to what are believed to be fair terms. Such an Act, while not ensuring complete absence of strikes and lock-outs, would be valuable, in my opinion, alike to the country and to employers and employed.”

A report of a special research into the working of the same Act made by the United States National Industrial Conference Board in 1918, summarises the working of the Act as follows :—

“ The commonly expressed opinion that the failure to impose penalties for illegal strikes is the principal weakness of the Act and the cause of its comparatively infrequent application, is not borne out. The position taken by the Department by Labour in regard to initiating prosecutions for infractions of the Act, in which they leave this to be done by prosecutions by the aggrieved party, appears to be the only practicable attitude, and has probably saved the Act from early repeal. The penalty always exists as a possibility and the entire attitude of organised labour indicates that it feels the restraint which the Act exercises. This restraint, however, arises quite as much from the mere fact of declaring the strike illegal under the Act as from the penalty provision. The Act might be quite as strong if the penalty provision were repealed. The few cases in which penalties have been imposed are responsible for much opposition to the Act. . . .



"The existence of the Act on the statute books has acted as a wholesale restraint both on employers and employees through a period of great industrial unrest; it has served in some degree to crystallize public opinion, and in particular cases to make it effective for maintenance of industrial peace.

"Investigations have been most successful when most informally conducted; introduction of legal machinery is almost certain to destroy their usefulness.

"Where investigations have been fairly conducted, with no unfortunate administrative irritation, and with tactful, informal procedure, resultant recommendations have been almost universally backed by public opinion and accepted by the disputants.

"The Act after ten years of operation has the support of the Canadian public opinion. The evidence of this is twofold: (a) No political party has ever suggested making an issue of its repeal.\* (b) The restraint which organised labour feels in spite of the fact that the penalty has seldom been imposed, is that of public opinion behind the Act."

Mr. P. M. Draper, Secretary-Treasurer of the Trades and Labour Congress of Canada, writing in the "Canadian Congress Journal" for December, 1923, says:—

"The Trades and Labour Congress first approved of the Act. In time it ran the gamut of seeking amendments, having a new Act drafted by its own legal adviser, condemning the whole thing, and, now approving the Act but seeking necessary amendments of it. . . .

"The objections of Canadian workers are directed not so much to the principle of the Act as to the defects in its administration and to legal decisions upon its provisions.

"The defects advanced have reference to the details required in the application for Boards and the delays in appointing them. These objections have, largely, been removed. The legal decisions have caused a great deal of dissatisfaction with the Act, although criticism should have been directed more to the decisions themselves than to the Act. . . .

"The fine points of the law (right though they may be) do not appeal to the workers. But the dissatisfaction does not affect the principle involved. That principle is one that labour

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\* Recent resolutions of Trades and Labour Congresses indicate some opposition to the prohibition of strikes but a willingness to have the principle of compulsory investigation applied more widely.

cannot oppose, and is one that labour has never objected to, that is, that the parties involved should endeavour to get together before a breach occurs: The trouble, as I have already stated, arises not from the attitude of labour in any given controversy, but from that of the employer who has nothing to arbitrate."

It may be of interest to examine the official statistics of strikes and lock-outs in Canada covering the whole of the period for which they are available, namely, 1901 to 1923, with a view to ascertaining whether they throw any light on the question as to the efficacy of the Industrial Disputes Investigation Act of 1907, and its amendments, in preventing stoppages of work due to industrial disputes.

The following table has been constructed from figures given in the "Canadian Labour Gazette," February, 1924. The figures for the years prior to 1907 are shown separately from those for the period during which the Act has been in operation; and for the latter period, again, a distinction is made between the yearly averages that result according as the figures for the war period 1914-18 are either (a) included, or (b) excluded.

Annual Average.	Number of Disputes.	No. of Workpeople Involved.	Time Lost, in Working Days.
1901-06 .. ..	117	24,858	470,299
1907-23 :—			
(a) Whole Period ..	126	38,473	1,089,778
(b) Excluding War Years (1914-18).	136	41,521	1,323,620

It will be seen from the above table that, not only the frequency of disputes, but also their magnitude as reflected in the number of workpeople involved and the number of working days lost, has increased since the Act came into operation. It has, of course, to be remembered that the industrial population has increased largely in the interval.

The following table concerns disputes dealt with under the Industrial Disputes Investigation Act in the period 1907-8 to 1923-24.\*

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\* The figures cover not only disputes falling clearly within the direct scope of the Act (i.e. those affecting mines, transportation and communication and other public utilities) but also disputes not falling within the direct scope of the Act.

Year.	No. of applications for Boards.	No. of Boards granted.	No. of Disputes where Strike was not averted (or ended).
	(1)	(2)	(3)
1907-8 .. .. .	34	31	1
1908-9 .. .. .	21	19	1
1909-10 .. .. .	27	25	4
1910-11 .. .. .	24	19	4
1911-12 .. .. .	18	15	4
1912-13 .. .. .	21	17	4
1913-14 .. .. .	16	15	0
1914-15 .. .. .	16	17	1
1915-16 .. .. .	14	11	1
1916-17 .. .. .	36	20	1
1917-18 .. .. .	52	38	1
1918-19 .. .. .	95	60	2
1919-20 .. .. .	72	46	3
1920-21 .. .. .	63	37	6
1921-22 .. .. .	49	31	1
1922-23 .. .. .	39	27	3
1923-24 .. .. .	22	13	0
<b>Total .. .. .</b>	<b>619</b>	<b>441</b>	<b>37</b>

The consistently small proportion of cases in which recourse to the Act proves unsuccessful (col. 3) is noteworthy and may legitimately be regarded as evidence that the Act is effective in nine out of every ten cases in which it is applied.

On the other hand an analysis of the Canadian strike statistics for the period 1901-23 shows that strikes amongst miners and transport workers have been more frequent since the Act has been in operation than before. The average yearly numbers of industrial strikes in these two groups of industry have been 28 in the period 1907-23 as against 18 only in the period 1901-6. (Unfortunately it is not possible to extend this comparison to the numbers of work-people involved or total working days lost.)

Again, taking all industries combined, one finds that while the average number of working days lost per hundred of the population through strikes and lock-outs was nine in the period 1901-6 it was 15 in the period 1907-23. No doubt all these comparisons are affected by the rapid growth of mining and industrial enterprise in Canada during the period.

On statistical evidence, therefore, the most that can be claimed in favour of the Canadian legislation is that when the law is invoked it nearly always operates successfully; but for some reason or

other the Act is invoked in only a relatively small proportion (about 30 per cent.) of the cases which its provisions have been specially designed to meet. For example:—

(a) In the seven years from 1st April, 1917, to 31st March, 1924, some 750 disputes involving stoppages, or threats of stoppages, were recorded in the industries to which the Act applies.

(b) Its provisions were actually applied in 252 of these cases only (i.e. Boards were granted).

(c) In 236 of the 252 cases the result was successful, but

(d) in approximately 360 cases, or about 50 per cent. of all that should have come under the Act, strikes did, in fact, occur.

#### Union of South Africa.

An Act was passed early in 1924 by the Legislature of South Africa making provision for the prevention and settlement of industrial disputes by the creation of joint industrial councils or conciliation boards. The Act applies to all industries, trades and undertakings except agriculture and farming; undertakings carried on by the Government are affected only in exceptional circumstances.\* The Act prohibits strikes or lock-outs in public utility services, provides for compulsory arbitration where such services are concerned, and contemplates Government control when they are disorganized by trade disputes.

Employers' organizations may agree with registered trade unions to establish joint industrial councils for their various districts, which councils shall be registered with the Minister of Mines and Industries. In areas where a particular industry is not sufficiently organized for the establishment of a council, conciliation boards may be appointed by the Minister at the request of a sufficiently representative number of workpeople or employers. The parties to any dispute which is referred to a council or board may, by agreement, apply to the Minister to appoint a mediator, or the Minister may, in his own discretion, appoint such a mediator, who shall endeavour to bring about a settlement of the dispute and shall make a report to the Minister.

A majority of the representatives of the employers and workpeople on a council or board may agree to abide by the decision of one or more arbitrators, but such agreement must provide for the appointment of an umpire, should the arbitrators fail to agree. Any award thus made is to be binding on all the parties represented on the council or board which has agreed to the appointment of an arbitrator or arbitrators. Pending the issue of such award, or during its operation, it is unlawful to declare a strike or lock-out.

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\* Sections 19, 20 and 47 of a South African Act of 1912 render a Government employee who strikes liable to a penalty of six months' imprisonment as well as a fine of £50, plus the confiscation of his superannuation contributions.

In any undertaking, industry or trade covered by the Act it is illegal to make or demand any alteration in the terms of employment without one month's notice being given, or such shorter notice as may previously have been agreed upon. Should an alteration be proposed, either party concerned may refer the matter to a council or board for consideration. The alteration of terms of employment which is demanded shall not take effect until the council or board has determined or reported on the matter ; but it is provided that the report is to be issued within one month of the date of reference.

In the case of disputes between local authorities and their employees in public utility services, when a council or board has failed to reach a settlement, the parties must agree to the appointment of an arbitrator within three days. In the event of disagreement the Minister must himself appoint an arbitrator, whose award shall be binding upon the parties to the dispute.

Power is reserved to the Minister to take over and operate a public utility service at the local authority's expense, should such authority be unable or unwilling to continue the service by reason of any lock-out, strike, or concerted action of its employees.

It is provided that no strike or lock-out may be declared until the matter in dispute has been reported upon by a council or board and until any further period stipulated in any agreement between the parties, within which a strike or lock-out shall not be declared, has expired. This provision, however, does not affect strikes or lock-outs in public services, which in any circumstances are illegal.

If the parties make application that an agreement arrived at shall be binding on the parties thereto, or shall be extended to other employers and workpeople in the industry, the Minister may issue a public notice making the agreement so binding. Furthermore, if he is satisfied that the parties are sufficiently representative of the industry concerned, he may extend the operation of the award so that it shall be binding upon all employers and workpeople in the industry in any defined area. In like manner he may extend the awards of arbitrators or umpires.

The " South African Labour Gazette " for April, 1925, states :—" It can fairly be said that the machinery provided by the Industrial Conciliation Act has been a potent factor in the adjustment of matters in dispute. Up to 8th March, 1925, eleven conciliation boards had been appointed and had functioned under the Act, the workers concerned being municipal employees, building operatives, tramwaymen, mine workers, municipal mechanics, electric power station employees, bakers and reduction workers. The actual results achieved by the boards have, generally speaking, been satisfactory. Several applications for the granting of further boards are under consideration."

**Germany.**

There are three methods in force in Germany for the peaceful settlement of industrial disputes : (a) The conciliation and arbitration organisation established by collective agreements ; it was stated in 1923 that all the collective agreements in force, covering about 17½ million manual and non-manual workers, make provision for the voluntary settlement of disputes, and that most of them have set up some definite adjustment machinery. (b) The statutory Industrial, Commercial, Mining, Seamen's and other similar Courts. (c) The official conciliation and arbitration authorities established by the (provisional) Conciliation and Arbitration Order of 30th October, 1923, which came into force on 1st January, 1924.\* This last Order, by confining the activities of the conciliation authorities to "collective" disputes and assigning all "individual" disputes to the Industrial Courts mentioned above, has freed the conciliation authorities from the mass of petty disputes which hampered their work under the earlier Conciliation Orders.

The Order of 30th October, 1923, provides that the existing Conciliation Boards\* are to be replaced by new Boards to be established by the Governments of the various States of the Reich in agreement with the Federal Minister of Labour. In fixing the headquarters of these Boards and the districts for which they are competent, the economic inter-relationship of the districts is given special consideration. The Boards are composed of one or more impartial chairmen, together with employer and worker assessors in equal number. The chairmen are appointed by the State Governments after consultation with the employers' and workers' organisations, and the assessors are to be appointed on the nomination of these organisations.

For industrial districts of wide extent the Federal Minister of Labour, after consultation with the State Governments concerned, appoints State Conciliators, who act in cases which are of particular importance for the economic life of the country.

One of the principal functions of both the State Conciliators and the Conciliation Boards is to assist in bringing about the conclusion of collective agreements.

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\* Previously both permanent and *ad hoc* Conciliation Boards existed, both regulated by the Order of 23rd December, 1918. The permanent boards consisted of one temporary and two permanent representatives of the employers, and a similar number of representatives of the workpeople in the district. There might be an impartial chairman. The *ad hoc* Boards were to deal with important disputes, such as those affecting large numbers of persons, directly or indirectly, or those likely to have a particularly disturbing effect on economic life. In certain cases the Federal Minister of Labour might, if conciliation failed and no award was made, himself deal with the dispute, or bring it before another conciliation agency, e.g. a State Conciliation Board or a Special Conciliation Committee under the Demobilization Commissioner.

As regards disputes, the Conciliation Boards or the State Conciliators intervene either at the request of one of the parties or on their own initiative. The first step is for the impartial chairman of the Board or the State Conciliator to try to bring about an agreement. If this attempt fails, the matter has to be referred to a Conciliation Chamber. The Chairman of the Conciliation Board forms a Conciliation Chamber with two employers' and two workpeople's assessors; the State Conciliator with equal numbers of employers' and workpeople's assessors summoned by him for the occasion. If no agreement is reached, the Chamber must lay before the parties a proposal for a general agreement as an arbitration award. If this is accepted by both parties it has the validity of a written collective agreement. This also applies if the award is binding in virtue of legal provisions or of an agreement.

If the award is not accepted by both parties it may be declared binding "if the regulations contained in it, after fair consideration of the interests of both sides, are found to be in accordance with justice, and if it is desirable on social and economic grounds that it should be put into effect." The State Conciliator is competent to declare the arbitration award of a Conciliation Board binding, if the area covered by the award is confined to his district or extends only slightly beyond it. In all other cases, the Federal Minister of Labour is competent.

The Federal Minister of Labour may lay down general principles for the work of the Conciliation Boards and State Conciliators. In making their decisions in particular disputes, however, these are independent of the Minister and not bound by instructions. The Federal Minister of Labour, with the approval of the State Governments, may also investigate the procedure of the Conciliation Boards and demand copies of documents. He may also supervise the procedure of the State Conciliators. The procedure of the Conciliation Boards is supervised by the State Governments.

The cost of the State Conciliators is borne by the Federal Government, which also bears that of the Conciliation Boards until the demarcation between the income of the Federal Government and of the States has been fixed.

#### *Efficacy of German legislation.*

An article in the United States "Monthly Labour Review" for June, 1924, contains the following comments on the Order of 30th June, 1923 :—

"The new Order completely abolished the old conciliation boards and established instead a system different both in function and structure. First, the districts were made considerably larger, and due consideration was given this time to the social and economic nature of the district, in contrast to the old division which was based upon the military requirements of

the country. This, of course, became possible only after a large portion of the work previously done by the conciliation boards had been transferred to other agencies,\* and the scope of activities of the new boards thus considerably limited. Also, in contrast to the old system, the new district boundaries were not made absolutely fixed and final, so that when needed, a redivision can easily be accomplished. Besides, the various States were given the privilege of combining and forming joint conciliation boards for two or more States, thus eliminating the expense of setting up separate boards. This is especially significant, as the territorial boundaries of the separate States do not, as a rule, coincide with their economic interests. In the new division, Prussia is allotted 66 boards, of which the Ruhr section alone is entitled to 10; Bavaria has 13; Saxony 6; Thuringia 6; Wurttemberg 5; Baden 4; Hesse 3; Mecklenburg 2; Bremen 2; and Hamburg, Lubeck, Lippe, Waldeck and Strelitz 1 each.†

“ Another important change in the system is that each new Conciliation Board must be presided over by an impartial chairman, appointed by the Government, whereas previously it was left to the members of the Board to decide whether they should proceed alone, or with a chairman elected by themselves. The new Boards, like the old ones, are made up of an equal number of representatives of capital and labour, but the old distinction between permanent and temporary members was dropped, and the new members are considered public officials only when summoned to a session by the impartial chairman. The latter, however, is a permanent Government official, appointed by the State after a conference with the representatives of the employers' and workers' organisations. This conference does not in any way limit the powers of the authorities to appoint a candidate of their own choice, unless the representatives of capital and labour agree on a person, in which case the Government is obliged to appoint to office the person agreed upon.

“ In addition to the Conciliation Boards, the Minister of Labour is empowered to appoint one permanent conciliator for each economic district and special temporary conciliators in each labour dispute should the importance of the case warrant. Formerly the Minister of Labour himself arbitrated such disputes, but experience showed this to have been the cause for much dissatisfaction with the Government by one side or

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\* Of the disputes brought before conciliation boards in 1919, 44,627, or 53 per cent., were individual disputes. Thus the transference of such disputes to the Industrial Courts would seem to have lightened the work of the new authorities by about half.

† There were 120 boards for the whole of Germany.



the other, hence the attempt to refer even the most important cases to an impartial body. Altogether 20 such conciliators have been appointed for districts which have been selected primarily for their economic importance, which accounts for the great difference in size.

"The duties of the Conciliation Boards and conciliators are, first, to mediate in the case of general collective agreements when a whole industry is concerned, or in the case of works agreements when but a single plant is under consideration; in either case they are to act only if there is no other special agency provided for by a previous agreement, or if such agency has failed to bring about the desired results. It must here be emphasised that this impartial machinery has been established with the purpose, not so much to settle disputes or strikes which have already broken out, as to bring about collective agreements which should prevent such occurrences. The Boards act in a dispute when appealed to by one of the parties concerned or of their own accord if the gravity of the case warrants such action. There is no legal compulsion for either side to apply to the Boards, although the by-laws of the Allgemeiner Deutscher Gewerkschaftsbund, the central organisation of the Socialist trade unions, as well as of the other labour organisations, provide for conciliation in all cases where direct negotiations with the employers have failed. Only in the case of the most vital public utilities, such as the supply of water, gas and electricity, are strikes and lock-outs forbidden unless the disputes have been placed in the hands of an arbitration board for a decision.\*

"The second group of labour disputes, involving individual employees and arising chiefly on the grounds set forth in the Industrial Code of 1891, and the Works Council Law of 1920, constituted the majority of the cases which the old Conciliation Boards were called upon to decide. To realise the benefits of such decisions in their favour, however, the individual workers were compelled to apply to a Court for a writ of enforcement, so that practically each case had to go before at least two bodies before its final disposition. The system was, therefore, both awkward and expensive, and the new decree simplified it a great deal by completely transferring the jurisdiction over these cases from the Conciliation Board to the old industrial and commercial Courts, which have been in existence in Germany since 1891. Both the industrial Courts, which have jurisdiction over all the industrial workers and those salaried employees who receive a salary below a definite amount, and the commercial Courts, which have jurisdiction over the greater part of the salaried employees, are organised very much in the same fashion as the Conciliation Boards. They consist of a chairman, usually

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\* See p. 371.

a judge, appointed by the Government, and of eight jurors, four from each side, elected by the employers and the employees of the community in which the Court is established. As in the case of the Conciliation Boards, no attorneys are allowed to plead before these Courts, and the parties concerned must be on hand to present their own case. In contrast, however, with the Conciliation Boards, the decisions of the Courts are absolutely binding and enforceable, and may be appealed only to the higher Courts. The Courts thus enjoy a clear advantage over the Conciliation Boards, and the transfer of the individual cases to their jurisdiction cannot but lead to the satisfaction of all parties concerned, while the large economies to the Government are very obvious. The only permanent official of the Courts is the chairman, who receives the regular salary of a judge, while the jurors are paid for their time of service only and at the rate they are receiving in their respective occupations."

Two articles\* by Rudolf Wissell, the State Conciliator for Greater Berlin, state that, while it is yet too early to make a final judgment, the new system seems to be working more satisfactorily than the old. He gives figures for the Greater Berlin district for January to June, 1924 :—

	Jan.	Feb.	Mar.	Apl.	May.	June.
(a) Conciliation cases .. .. .	19	10	22	23	18	12
(b) Proposals to make collective agreements binding	—	35	29	25	56	54
<b>Total .. .. .</b>	<b>19</b>	<b>45</b>	<b>51</b>	<b>48</b>	<b>74</b>	<b>66</b>
(a) Conciliation cases settled by award of Court	6	2	4	7	2	2
Settled by voluntary agreement	1	2	3	3	8	2
Settled otherwise .. .. .	12	1	5	6	5	7
Unsettled .. .. .	—	5	10	7	3	1
(b) Proposals to make collective agreements binding :—						
Conceded by Board .. .. .	—	3	4	7	3	1
Rejected .. .. .	—	1	2	4	6	4
Agreement reached .. .. .	—	16	7	9	24	24
Withdrawn .. .. .	—	6	6	1	7	14
Referred to Ministry of Labour	—	—	—	—	—	1
Unsettled .. .. .	—	9	10	4	16	10

\* *Soziale Praxis* (5th June, 1924) and *Gewerkschafts-Zeitung* (30th August, 1924).

Thus in six months only 18 awards were made declaring collective agreements generally binding, as compared with 80 settled by voluntary agreement and 34 withdrawn, largely owing to the Conciliators' influence. It would appear, however, that the conclusion to be drawn from the Greater Berlin figures by no means represented the general situation throughout Germany, for in May, 1924, the Federal Minister of Labour was compelled to issue a warning that too great a call was being made upon the compulsory powers of the Conciliators. Instructions were, therefore, given that, in accordance with the basic principle of the Conciliation Order, the binding declaration must be reserved for exceptional cases only, where the public interest was absolutely clear.

#### *Public Utility Undertakings.*

By a Presidential Order issued on 10th November, 1920, lock-outs and strikes in establishments which supply the community with gas, water and electricity are not permissible till three days after the issue of an award by the competent conciliation committee. Persons who incite to a strike or lock-out prohibited under this Order are liable to imprisonment or a fine. If establishments of the above-described nature are brought entirely or partially to a standstill as the result of a lock-out or strike, the Minister of the Interior is empowered to ensure emergency work and an emergency supply, and to take all administrative measures for securing the maintenance of supplies for the population or the continuance of the undertaking. Such measures may include the satisfaction of "justifiable" demands made by the workpeople. The cost of putting such measures in operation falls on the owner of the establishment. No workman who continues to carry on work in such undertakings, or who carries out authorised emergency work, shall suffer loss of any kind as the result of such action.

While freedom of association is specifically guaranteed to members of the public services by the Weimar Constitution, opinion is divided as to whether this freedom includes the right to cease work by concerted action. The question arose in connection with an impending strike of railway officials in February, 1922. A temporary Order was issued prohibiting all strikes of railway officials, but the strike took place nevertheless, and the Order expired on the 9th of February. The general consensus of opinion, however, in the period following the strike, appeared to be that the freedom to combine, guaranteed to civil servants by the Constitution, does *not* include the right to strike. Shortly after this (in the spring of 1922) the Prussian Minister of the Interior issued an Order declaring that for public officials generally, and for police officers in particular, a right to strike is inadmissible, and that even a declaration of neutrality or of sympathy on the part of an organisation of public officials constitutes a breach

of official duty. The Minister required that these principles should be unequivocally affirmed in the bye-laws of all trade unions including police officers among their members.

#### Norway.

A measure of compulsory arbitration was introduced in Norway by a temporary Act of 9th June, 1916, which was renewed annually till it was allowed to lapse in April, 1921. The Act was renewed with some modifications in March, 1922. An attempt to renew it in 1923 failed, owing to the opposition of the whole Labour Party. By the original Act, if it were found that an industrial dispute was seriously endangering the interests of the community, the Crown could decree that the dispute be settled by arbitration and prohibit the commencement or continuance of a strike or lock-out. Pending an award, working conditions and rates of pay remained the same as they were when the dispute began. The Arbitration Court set up *ad hoc* consisted of a Chairman and four other members, one of whom was nominated by the National Federation of Trade Unions and one by the Employers' Federation, the Chairman and the two remaining members being appointed by the Government. The Court could order the production of documents and the attendance of witnesses and could inspect machinery, &c. Its award was final and operated in the same manner as a collective agreement. A fine not exceeding twenty-five thousand kroner could be imposed on any person who initiated or continued a lock-out, or took part in a strike, contrary to the provisions of the Act, or on the members of the executive of a trade union, or employers' association, who participated in a resolution to take any steps in contravention of the Act. In this latter case, the organisation concerned could be ordered to pay the fine. Thus, compulsory arbitration in all disputes held to involve serious danger to the community was in operation from 1916 to 1923, but was then allowed to lapse.

By an Act dated 6th August, 1915, which came into force on 1st January, 1916, disputes regarding the validity, interpretation or existence of a collective agreement, or regarding a demand based on a collective agreement, must be brought before a specially constituted Labour Court, while disputes regarding terms of employment or wages or other conditions of work not covered by a collective agreement, are submitted to Conciliation Boards set up throughout the country. The Labour Court sits at Oslo, and consists of a Chairman and four other members, all of whom are appointed by the Crown. The Chairman must be qualified to act as a judge in the Supreme Court. Two of the four other members are selected from persons nominated by associations of employers, and two from persons nominated by the trade unions. None of these must be officers or paid servants of the associations or unions. Members hold office for three years and have fixed salaries paid by the State.

Under no circumstances may a strike or lock-out be resorted to for the purpose of determining the validity, the interpretation or the continuation of a collective agreement, or with the object of enforcing demands based on such an agreement. All controversies of this kind must be referred to the Labour Court for decision, unless the parties agree to settle their differences by private arbitration. The Court cannot, however, be invoked, unless negotiations for settlement of the points at issue have previously been set on foot between the parties, or unless an attempt at such negotiations has been made by the party seeking the aid of the Court. The parties may appear before the Court either personally or by accredited representatives. Except on questions of law, and of the jurisdiction of the Court, its decisions are final. They are, moreover, enforceable in the same way as decisions of the Supreme Court. Compulsory arbitration in this sense remains in force.

While the history of compulsion as applied to arbitration has been that described, the Act of August, 1915, also provided machinery for conciliation, and stoppages were prohibited until an opportunity had been given for that machinery to operate. The object of the machinery is to deal with disputes which do not arise out of collective agreements. It is controlled by a permanent Chief Conciliator, and the whole country is divided into six conciliation areas, over each of which a District Conciliator is appointed. Both classes of conciliators are nominated by the Crown, and hold office for three years. Each District Conciliator acts as the chairman of a Conciliation Board, consisting of himself and two persons to be selected by him from panels of candidates, nominated for each district by registered associations of employers and workpeople. When notice of a proposed stoppage of work owing to a difference arising out of some point not embodied in a collective agreement has been given by an employer or by workpeople, the party issuing the notice must at once inform the Chief Conciliator or the District Conciliator concerned. The stoppage of work must not take place before the time fixed by the notice, and in no case until four working days have elapsed from the time when the Conciliator has received notice that negotiations for settlement have not been opened, or that they have been broken off, or that notice to cease work has been given. Within two days after the receipt of information of a projected strike or lock-out, the Conciliator may forbid the stoppage of work if he considers that, having regard to the character and magnitude of the business involved, such stoppage would be detrimental to the public interest. Immediately such a prohibition has been imposed, the Conciliator must take action with a view to settling the question at issue. If, on the other hand, the stoppage of work has not been prohibited, the Chief or the District Conciliator may proceed to attempt to settle the dispute, either on his own initiative or at the request of one of the parties. After ten days have elapsed from the prohibition

of the stoppage of work, either of the parties to the dispute may demand that further negotiations shall cease, if the party making the demand has duly taken part in the negotiations. Four days after the demand has been made, negotiations must terminate. In cases where no settlement has been arrived at, the Conciliator may publish a statement on the matter.

Proceedings both before the Labour Court and the Conciliation Boards are free of cost to the parties.

Various measures have been introduced from time to time with a view to restricting strikes by strengthening existing legislation through the provision of more drastic penalties in the form of fines and imprisonment. So far nothing has come of these measures.

No satisfactory figures of recent date are available as to the results of conciliation. The official conciliators intervened in 87 disputes in 1921 affecting 58,271 workers, as compared with 202 (133,639) in 1920 and 154 (106,022) in 1919.

#### *Efficacy of Norwegian Legislation.*

In connection with the working of the temporary scheme of compulsory arbitration, the following remarks, made by Mr. Rasmussen, of the Norwegian Employers' Association, during the course of a lecture in April, 1921, are of interest as illustrating the attitude of the employers:—

“Various opinions could be held upon the question of arbitration, as negotiations between conflicting parties could often be merely a matter of fencing when it was known that arbitration would eventually take place. The law of compulsory arbitration has now run its course, and all who are interested in a healthy development of industry are content that it should be so, as the decisions of the Court of Arbitration last year caused great dismay and have laid burdens on commercial life which are difficult to bear.”

#### **Poland.**

An Act of 1st August, 1919, and an Order of the Commissariat of the People's Council of 15th June, 1919, made provision for the regulation of disputes between agricultural employers and work-people by means of collective agreements voluntarily concluded by the parties which might subsequently be made compulsory. This method did not always prove satisfactory, and a new Act was passed in March, 1923, which provided that if an amicable settlement of an agricultural labour dispute proved impossible, the Minister of Labour could appoint a special arbitration commission and nominate its chairman. The commission must include a representative of the Ministry of Agriculture, a representative of the Ministry of Justice, and an equal number—not less than three for

each—of representatives of employers and workpeople, to be selected by their respective organisations in the district concerned. If one of the parties fails to send representatives or if its representatives refuse to take part in the discussions of the commission, the question is to be settled by the Government representatives whose decision is binding on the parties. The commission fixes conditions for collective agreements in agriculture. Its decisions remain in force for one year only.

#### **Roumania.**

Under an Act dated 4th September, 1920, strikes or lock-outs begun without previous recourse to conciliation are prohibited in establishments employing ten or more workers. When a dispute arises, the workpeople are required to appoint delegates, who in concert with the employer and in the presence of an official of the Ministry of Labour, must endeavour to effect a settlement. If no settlement is reached the parties must submit their difficulties to arbitration. Provision is made for extending the scope of the proceedings, so that the decision may be made applicable to all local establishments similar to those involved in the original dispute. A collective cessation of work is prohibited in all Government or municipal establishments and public utility services, including transport by land, water or air, petroleum wells, coal mines, natural gas storage, gas and electricity works, waterworks, hydraulic power stations, flour mills, bakehouses, slaughter houses, sugar factories, restaurants and inns, road maintenance, scavenging, hospitals and services of public hygiene.

#### **United States of America.**

The federal constitution of the United States makes it necessary to divide any consideration of the social legislation in force in that country into two parts: (1) Federal legislation; (2) State legislation. Moreover, as will be seen later, the decisions of the United States Supreme Court, whether given on the reading of a Federal or State Act or an interpretation of the Federal constitution, can have a disturbing or even an annihilating effect on both Federal and State legislation.

#### *Federal Legislation.*

Five principal Federal Acts dealing with industrial disputes (mainly in the transport industry) have been passed by Congress. The following descriptions are quoted from "Conciliation and Arbitration," *Bulletins of Indian Industries and Labour*, No. 23.

(1) The Act of 1888, which "provided for voluntary arbitration at the initiative of the President, with compulsory investigation and the publication of the decision of the investigating authority." It "empowered the President to appoint two commissioners, who, acting with the United States Commissioner

of Labour, could investigate disputes and make a report. This investigation could be made on the application of either of the parties concerned, or on that of the Governor of the State in which the dispute took place, or on the President's own initiative. This Act was practically never brought into operation."

(2) The Erdman Act of 1898, which repealed the 1888 Act. It applied "specifically to transport workers. When a dispute was threatened, the Chairman of the Inter-State Commerce Commission and the United States Commissioner of Labour, on the application of either party, were enjoined to make an attempt to settle the dispute by mediation. If mediation was unsuccessful, it was the duty of the mediators to try to bring the case to arbitration. If the parties agreed, a board of arbitration of three members was formed; one represented each party, and the third was nominated by these two, or, failing their nomination, he was nominated by the Commissioner. The award of this Court was made binding, and neither side was permitted to cease work for three months after the award without at least thirty days' notice. It was directed that each award should continue in operation for at least one year, and that no new arbitration should take place on the subject during that time. The arbitrators were given powers of compulsory investigation. Violation of the compulsory clauses made the guilty parties liable to damages.

"In actual practice, although the arbitration clauses were regarded as the most important features in this Act, the mediation provisions proved of most value. Conferences were arranged with the parties separately. Neither party knew what the other was doing and a joint meeting was held only after a settlement had been reached, or the parties had decided to go to arbitration. These conferences proved to be much more useful than the judgments given in the few cases in which the arbitration machinery was invoked. In all, during the currency of the Act, only twelve cases were submitted to arbitration, of which only eight passed the mediation stage. Four of the cases were submitted directly. It is reported that in these twelve cases, in only three instances were the two arbitrators nominated by the parties concerned able to agree on the third member. But it is to be noted that, where an arbitration award was actually given, there is no case reported of an actual breach of the award. From 1898 to 1912, in all 48 applications for mediation or arbitration were received. Of 44 cases in which mediation was invoked, only eight ultimately went to arbitration."

(3) The Newlands Act of 1913. "In this Act, provision is made for a commissioner of mediation and conciliation, to be appointed for seven years by the President, with the advice



and consent of the Senate. The Act enjoins the President to nominate two other Government officials, who, acting with the Commissioner, constitute the United States Board of Mediation and Conciliation. Provision is also made for the appointment of an assistant commissioner. The duties of this Board of Mediation and Conciliation, as prescribed in the Act, are similar to those prescribed in the previous Acts; but the Newlands Act gives more detailed statutory prescriptions in regard to the procedure and form of arbitration. The Board was empowered to offer its services in any dispute which was likely to lead to the interruption of traffic, and on the failure of mediation, a Board of Arbitration was to be formed with either three or six arbitrators. With the consent of both parties, the Board of Arbitration was given powers of compulsory investigation.

"The Newlands Act did not have a long life. It broke down in 1916, when a railway dispute required the special intervention of Congress. The Board of Mediation and Conciliation offered to mediate in the dispute after the parties had failed to agree to go to arbitration and a date had been fixed for a strike. The mediation failed, and to save the situation, the President tried to compromise by offering the concession of an eight-hours day and a commission to examine the other points in dispute. The men agreed, but the managers demurred. As a result Congress passed an Act, the Adamson Act, which incorporated the proposals of the President. Later in the same year the Newlands Act again broke down, and compulsory federal legislation was contemplated. The entry of America into the war, however, turned the attention of Congress to more urgent matters. Under war conditions, the failure of the Newlands Act was covered up by emergency war measures. The railways to all intents and purposes were taken over by Government. A Wage Board was set up to advise on railway-men's wages, and Boards of Adjustment, on which there was equal representation of workers and the administration, were created to settle disputes. A division of labour, at the head of which was a railway union official, was created to act as a connecting link between the Boards and the men. These Boards proved acceptable to the men, who, it may be noted, steadfastly refused to submit their cases to arbitrators."

(4) "A fourth agency for settling disputes was set up in 1913, when the Department of Labour was created. The Act creating the Department empowers the Secretary of Labour to act as a mediator and to appoint conciliation commissioners, when he considers this to be necessary in the interests of industrial peace. Power is given in the Act to refer cases to arbitration when mediation fails, but the mediators do not act as

arbitrators. From 1915 to 1919, nearly 3,650 cases were dealt with by the Secretary of Labour, and agreements were effected in nearly 2,550 cases. In the first year after the armistice, 1,780 cases, of which 1,223 were settled, were dealt with by the departmental machinery."

(5) "The purely war machinery, the chief part of which was the National War Labour Board, need not concern us here. In the Transportation Act of February, 1920, however, we have an interesting peace-time measure, the fifth of its kind, which incorporates some of the war-time lessons. The main features of this measure, which declares that it is the duty of railwaymen to do all they can to avoid interruption of traffic, are (a) if a dispute arises, if possible it must be decided in a conference representative of both sides; (b) if grievances regarding rules and working conditions cannot be settled in this way, they must go before Boards of Adjustment,\* to be established by agreement between any railway or group of railways and its employees. The composition of the Boards is left mainly to the parties themselves. The Railway Labour Board, the management, the organised workers, or a hundred workers by a written petition may set the machinery in motion. The Act also establishes a Railway Labour Board. This is the final court for the settlement of railway disputes. The members of the Board, nine in number, equally representative of workmen, employers and the public, are appointed for five years. The representatives of employers and workmen are chosen from a list of nominees (not less than six) submitted by their respective groups. During their tenure of office, the members cannot be active members of unions or have financial interests in railway stock. Cases may be referred directly to the Board or, after failure of reference, to the Boards of Adjustment. Decisions are by majority vote, but in cases directly referred to the Board, at least one of the representatives of the public must agree to the decision. It may also be noted that the Board is empowered to revise a decision of an earlier conference, if that decision is likely to increase costs and to raise railway rates."

"The powers and duties of the Board of Mediation and Conciliation (established in 1913)† do not extend to any dispute which is received for hearing by an Adjustment Board or the Railway Board.

"One of the notable features of this Act is the place it gives to the public, the third party in disputes. In public utility services, like railways, this aspect of the American Federal

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\* Apparently these were seldom established. In December, 1920, the Railway Labour Board referred to later announced that it had no power to order the organization of the National Adjustment Boards.

† Under the Newlands Act, see pp. 376-7.

Law is coming more and more into prominence, and many American observers look with much favour on the compulsory investigation provisions of the well-known Lemieux Act of Canada."\*

*State Legislation.*

Considerable attention has been given in the various States of the Union to the question of preventing strikes by legislation. Most of the States have legislation for dealing with industrial disputes and have permanent Boards of Conciliation and Arbitration, usually consisting of three members, one of them being a representative of the workpeople. All but two States provide for the representation of the employers. In some States, particular local circumstances have dictated a peculiar constitution, e.g. in Oklahoma, where the farmers are represented on the Board. In certain States, the Labour Commissioner acts as a board of conciliation or as a mediator. In States with Industrial Commissions (i.e. State Departments of Labour), a mediator is usually appointed, to whom under certain conditions are assigned temporary powers of arbitration.

In regard to compulsion, the practice of the various States is by no means uniform. In several States, the State Board of Arbitration must conduct an investigation on the occurrence of certain circumstances as prescribed in the State law; these circumstances may be failure to settle a dispute by mediation or arbitration, or a demand by the Governor, or when the dispute is brought to the knowledge of the Board. In other States, such investigation is not obligatory, but may be carried out. In New York, the Industrial Commission may direct that such an investigation shall take place. In some States compulsory investigation may be employed when, after both parties refuse to go to arbitration, the dispute is likely to cause inconvenience to the public; in other States, simply when both parties cannot agree to go to arbitration. In one or two cases, compulsory investigation must take place whenever a dispute occurs.

The practice also varies in regard to the enforcement of awards. In some States, if arbitration has been agreed upon by both parties, they are obliged to accept the award. In some cases, a breach of the award may be dealt with as contempt of court, and in others it is punishable by fine or imprisonment.

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\* In March, 1925, the United States Supreme Court decided that Railway Companies are not required to submit their labour disputes to the Railway Labour Board. As a consequence, the Board has no real power, and appears to have given dissatisfaction to both employers and employed, both of whom seem either to have ignored it at different times or to have refused to appear before it.

It may be noted that in only one State, Colorado, has legislation on the lines of the Canadian Industrial Disputes Investigation Act\* been adopted. But in several States a voluntary agreement to go to arbitration must include a promise to abstain from a strike or lock-out pending the arbitration proceedings. In some States, notice must be given of an intention to stop work. In others, strikes during arbitration and for some time after an award, without a specific number of days' notice, are altogether unlawful, and render the organizers and participants liable to damages.

It is not proposed in this memorandum to deal at length with the various measures concerned with industrial disputes in force throughout the 48 States and two territories comprising the Union ; but it may be of some interest to give a brief account—both for their intrinsic interest and, in the case of Kansas, for the exemplification of the constitutional difficulty referred to at the outset—of the industrial disputes acts passed in Kansas and Colorado.

The Kansas Industrial Court Act of January, 1920, one of the first and more important of its kind, followed upon a strike of coal miners and met with determined opposition from both employers and employed. The object of the Act was to set up, for the purpose of forcing employers and workpeople into agreement, not a joint organization of the parties concerned, but a neutral authority. The Court consisted of three judges appointed by the Governor on the advice of the Senate, with powers to enforce the continuous functioning of essential industries (those connected with food, clothing, fuel and transport). Disputes in these industries had to be, and others might be, referred to the Court. The Court had power to intervene upon its own initiative in disputes in essential industries where the public welfare was endangered, and, in case of cessation of operations, to assume control of the industry. The Act recognised the right of collective bargaining and the right to cease work, but did not allow any form of incitement to strike. A union leader who called a strike, or an employer who closed his establishment without the Court's approval, was liable to imprisonment. The Court had extensive rights of scrutiny and determination, and it could lay down the conditions under which an industry was to be conducted. Appeal against the decisions of the Court was allowed to the Supreme Court of Kansas, pending whose decision production had to be continued.

The position of the Kansas Court was fundamentally changed by a decision given in June, 1923, by the United States Supreme Court. The action of the Kansas Court in regulating wages and hours of labour in a certain case was then declared to be unconstitutional. The decision repudiated all regulation of wages by State authorities except in certain special industries "affected with a public interest,"

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\* See p. 356 *et seq.*

but, though it declared that "the case involves the validity of the Court," it did not, apparently, invalidate the Kansas Act itself. It did, however, limit the activities of the Court to such an extent as would make it doubtful whether that institution could have any real effectiveness in future, for, according to the decision, the Act curtailed the liberty of an individual protected by the "Guarantee of the due process of law" clause of the Fourteenth Amendment of the Constitution (which liberty can be curtailed in exceptional circumstances only); and the Supreme Court denied that all the industries specified in the Act as being essential (except transport in certain cases) are sufficiently "clothed with public interest" to justify public regulation. The judges of the Court refused the request for their resignation made by the Governor of Kansas in the light of the Supreme Court decision, and it appears that the institution still functions, subject to the specific restrictions imposed by the above decision. Amongst those associated with the work of the Court opinions differ widely as to the ultimate effect of this decision on its future.

A report on the Court published by the National Industrial Conference Board in 1924 states that there is no conclusive evidence that it has reduced the number of strikes. Local interests hold that the number of strikes has increased since its establishment. On the other hand, the figures of the Department of Labour show that the number of strikes and lock-outs reported in Kansas in 1920, 1921 and 1922 was smaller in each of these years and in all three combined than in any one of the years 1917, 1918 and 1919, though, as stated, "much depends on how the number of strikes is computed." However, 1921-22 was a period of industrial depression. On the whole, the record of the Court indicates that, both in respect to disputes in small establishments which might have developed into stoppages, and in larger strikes which had begun, the Court has undoubtedly exercised a moderating influence, and in various ways has tended to protect the public interest.

The Colorado Act of 1915 empowers the Industrial Commission to enquire into a dispute and make an award, which is not binding unless the parties have agreed in writing to accept and be bound by the terms of the Award. No change in the terms of employment may take place unless 30 days' notice is given by one party to the other as well as to the Industrial Commission, and no strike or lock-out may be declared until after the final hearing and the entry of the final award by the Industrial Commission. According to The Bulletins of Indian Industries and Labour, No. 23,\* "the reports on the working of the Colorado Act show that it has been as successful as any piece of similar legislation in the world. In very few cases have strikes taken place against the law, and in many cases the law has completely prevented strikes. In only nine

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\* See p. 352.

cases out of 145 did strikes take place without the statutory notice. The Industrial Commission has also been very successful in settling disputes, either by its own awards or by conferences convened at the instance of the Commission."

A survey of the working of American legislation on conciliation and arbitration appears to suggest that the best results have been achieved by conciliation or mediation. Even during the war, compulsory arbitration was avoided save in a few extreme cases. Up to the present the powers of compulsory investigation and publicity which are granted by many of the American laws have been little used.

#### Other Countries.

Compulsion has also been applied in Colombia and Peru in recent years. In Colombia, by an Act of 4th October, 1920, no collective stoppage of work is permitted in any commercial, industrial or agricultural undertaking until conciliation procedure has been carried out. If a collective dispute which may result in a stoppage of work occurs in any establishment, the workers must appoint a delegation of three persons to represent their grievances to the head of the establishment, who must receive the delegation within 24 hours of their request for reception. If an agreement is reached as a result of these negotiations, it is binding for the period stipulated. If no agreement is reached, the dispute must be submitted for conciliation to a third person nominated by agreement between the two parties or to two persons nominated one by each of the two parties. Representatives of both parties must appear before the conciliators when summoned and must furnish them with all the information which may be asked for in connection with the dispute. The function of the conciliators is to endeavour to bring about an "equitable and suitable settlement" of the dispute; but their intervention ends 24 hours after they have entered on it unless an extension of the period is granted by agreement. The opinion or decision of the conciliators is not binding on the parties; but, if the latter conclude an agreement as the result of the negotiations, it is binding on the parties to the negotiations.

If no agreement is reached, the conciliators must inform the parties that the dispute *may* be submitted to arbitration. If the parties decide on this course, each of them nominates an arbitrator, who may be selected from among the conciliators. These arbitrators, at their first meeting, must nominate a third person to decide if they fail to agree. The Arbitration Board so constituted is empowered to require all the necessary information from the representatives of the parties, and to summon them to appear before it whenever necessary. The Board must make its award within the week following its constitution. The award of the Arbitration Board is binding and "invested with all the protection granted by the law to arbitration in general." Disputes must be submitted to an arbitration board

before a collective stoppage of work takes place. No collective stoppage may take place during the period for which the arbitration award is valid. Arbitration is compulsory, and all collective cessation of work is prohibited pending the issue of the award, in all means of transport, public lighting of towns, public waterworks, hygiene and cleansing of towns and in the national mines. If a stoppage of work takes place in any of these, the Government is authorised to take over the management by agreement with the employers, and to carry on the undertakings. Penalties are provided for breaches of the provisions of the Act.

In Peru, an amendment to the constitution proclaimed on 18th January, 1920, provides for compulsory arbitration. Workpeople are required to notify the authorities of their demands. An arbitration board is set up immediately and its decision is final, failure to comply with it being punishable by fine or imprisonment.

*Part II.—Countries with mainly Voluntary Methods.*

**Austria.**

Conciliation Boards were established in Austria by the Act of 18th December, 1919, on Conciliation Boards and Collective Agreements. They grew out of the Grievances Committees set up during the war for the protection and regulation of wages of workpeople compelled by the Industrial Conscription Act to remain at work in the munitions factories. These were deprived of their military character after the war and placed on a fresh basis by the 1919 Act.

The functions of the Boards are :—

- (1) To act as conciliation boards in disputes about labour conditions, individual or collective.
- (2) To act as judicial bodies in disputes connected with the application of the Act of 15th May, 1919, on the establishment of works councils.
- (3) To act as agents in assisting in the conclusion of collective agreements, and in registering and interpreting such agreements when made.

Their jurisdiction covers practically the whole of industry with the exception of home work, which is provided for by the local home work committees empowered to act as conciliation boards by the Home Work Act of 19th December, 1919.

There are 11 boards in the country for districts usually coinciding with the Factory Inspection Districts. They consist of a chairman and one or more vice-chairmen elected for an indefinite period by the Minister of Justice in conjunction with the Minister for Social Administration, and of an equal number of representatives of employers and workpeople, elected for a period of three years by

the Minister for Social Administration from nominations made by the respective trade organisations. The chairmen must not be State officials. In actual practice, the chairmen are elected from men of judicial rank, which practice is explained by the fact that the boards have judicial as well as conciliatory powers. The boards act in committees set up either for certain classes of disputes, or constituted as required to deal with special disputes. The boards take action either at the request of one of the parties to a dispute or of a public authority, or on their own initiative; in the last case, chiefly in important disputes. The procedure is that the chairman must first try to settle the matter without summoning the other members of the board. If this is unsuccessful, he brings the matter before the committee where the negotiations are not public. If no settlement is reached, the Conciliation Board may make an arbitration award. This award may be rejected by the parties; but any decision in a dispute arising out of existing conditions of work to which the parties have submitted, as well as any agreement concluded before the Central Conciliation Board, is legally enforceable.

This Central Conciliation Board at Vienna, which is composed in the same way as the District Boards, supervises the activities of the latter. The Central Board, if no agreement is brought about by the District Boards, is empowered to declare the award of the lower board binding, or to take over the case itself and settle it by a binding award.

The Conciliation Boards have a further important power. They may declare a particular collective agreement, which has acquired dominant importance, to be binding, as a whole or as regards particular provisions, in respect of conditions of work fundamentally similar to those regulated by the collective agreement, i.e. they may extend a particular agreement, in whole or in part, to enterprises in a given district not covered by the agreement and thus sweep in all unorganised employers and workpeople. The Central Conciliation Board decides finally on objections to a declaration of this kind which have been lodged with the Conciliation Boards.

In addition to these Boards, the factory inspectorate is, by a Law of 14th July, 1921, called upon to mediate in disputes and try to bring about an understanding between employer and workpeople. Further, in important disputes, which might endanger public order or be injurious to the welfare of the community, the Minister for Social Administration—in mining, the Minister for Trade and Commerce—may intervene if the intervention of the Conciliation Board has been unsuccessful.

In addition to the conciliation machinery described above, there are industrial courts established under an Act dated 5th April, 1923, for the settlement of legal disputes arising out of the conditions of work or service agreed between employers and workpeople.



**Belgium.**

Disputes affecting individuals are settled in Belgium by Conseils de Prud'hommes, as in France.\*

An Act dated 16th August, 1887, provides for the establishment of standing Councils of Industry in all localities where their operation is deemed expedient. Each council is composed of a number of trade sections, the members of a section (from 6 to 12) being elected by employers and workpeople in equal numbers; they choose their own chairman and secretary. An important part of the duties of these councils, as contemplated by the Act, was to exercise at the request of either the workpeople or employers the functions of conciliation and arbitration, in the event of collective disputes. It appears, however, that cases of intervention by the councils have been very rare, and that this part of their functions has of late years practically fallen into desuetude. It is possible that these functions are now exercised, or are largely rendered unnecessary, by the operations of the national joint industrial commissions (or councils) which have sprung up in recent years, but as to the growth and operations of which no official report has yet been issued.

The only legal enactment concerning conciliation or arbitration in Belgium that appears to have any practical validity is contained in the Employment Exchange Act of 19th February, 1924, which provides that the joint advisory committees of the employment exchanges may offer their services to the interested parties, with a view to preventing or stopping an interruption of work, in the event of a dispute. It is too soon for it to be possible to say whether this clause of the Act has produced any effective results.

In the case of persons employed by the State (including the railway, postal, telegraph and telephone services) strikes are definitely prohibited under Article 236 of the Criminal Code which provides that :—

“ Officials who, as a result of concerted action, shall resign their posts with the object of hindering or suspending either the administration of justice or the accomplishment of a lawful service, shall be punishable by imprisonment for a period of one month to two years and by a fine of 100 to 200 francs. They may further be deprived of the right to be employed in any capacity in the public service.”

**Denmark.**

The most recent Danish Conciliation Act, which came into force on 1st January, 1922, was designed to improve the machinery established by the legislation of 12th April, 1910 (amended in 1918

\* See p. 388.

and 1919), to meet the greatly increased demand for conciliation in labour disputes. The 1910 legislation provided for a Permanent Arbitration Court and a Public Conciliator.

The Permanent Arbitration Court consists of an equal number of representatives of employers and workpeople elected by their respective national federations, with a president and two or three vice-presidents of judicial qualifications who are paid officials. The jurisdiction of the Court extends to industry and handicrafts, agriculture, transport and (since 1919) commerce and general office work. Its functions are to enforce and interpret existing collective agreements. Between the years 1910 and 1920 the Court dealt with 363 cases, of which almost half fell within the last three and a half years. Of these, 70 per cent. were heard and settled, 20 per cent. were disposed of in the preliminary proceedings and 10 per cent. withdrawn.

The Public Conciliator is a paid official appointed by the Minister of Social Affairs on the nomination of the permanent Arbitration Court for a period of two years. His functions are defined in the Act as being "to endeavour to adjust disputes between employers and workpeople," his intervention or non-intervention in any dispute being left to his own discretion.

Whenever a strike or lock-out has occurred, or seems likely to occur, which threatens to have serious consequences for the community, and after negotiations between the parties have proved fruitless, the Conciliator may, either on his own initiative or at the request of one of the parties, summon both to a conference. This summons they must obey. At this conference he is empowered to suggest terms of settlement, but these must not be published, according to the original legislation, without the consent of both parties, unless a stoppage of work takes place. If, in the course of the negotiations, differences of opinion arise on important questions of wages or hours of labour, the Conciliator may require both parties to furnish information on these points. If the information furnished appears unsatisfactory, he may demand an examination of witnesses before the Permanent Court, but up to the year 1921 it had not been found necessary to make use of this power. Between October, 1910, and the middle of 1919 the Conciliator dealt with 132 cases, in 99 of which he succeeded in bringing about a settlement during the preliminary negotiations.

The latest Act does not affect the Permanent Court in any way. With regard to conciliation procedure, it was agreed that the existing system had worked satisfactorily, and that there was no necessity for making any alteration in principle. In view of the great increase of work it was, however, necessary to appoint three Conciliators instead of one. These have equal authority and apportion the work among themselves. The Conciliators are appointed for three years, but in order that there may be no interruption of the work the appointments must not terminate simultaneously.

The most important alteration is the replacement of the clause prohibiting the publication of the Conciliator's proposals without the consent of both parties by one which states that the proposals may not be published without the consent of the Conciliator until the answers of both parties to the proposals have been received. A further new provision empowers the Conciliators to require any employers' or workpeople's organisation to produce a copy of any collective agreement they may have concluded, while another provides that only the exact text of any conciliation proposal may be laid before any organisation of employers or workpeople, and that the voting must take the form of direct refusal or direct acceptance of the proposal.

#### Finland.

An Act which comes into force on 1st January, 1926, provides for the establishment of conciliation and voluntary arbitration in industrial disputes. Conciliation officers, under the supervision of the Ministry of Social Affairs and paid by the State, are to be appointed by the Council of State for a period of three years. The number is to be fixed later by Administrative Order. If a dispute affects the districts of several conciliation officers, the Minister for Social Affairs may either select one of the ordinary officers to deal with it, or appoint a special conciliator. The Minister may also appoint a special conciliator or conciliation board if he considers that the dispute may endanger the interests of the community, or if the negotiations instituted by the competent conciliation officer have failed.

At the request of one of the parties or of the trade association to which the party belongs, the conciliation officer must take steps to settle a dispute. He is empowered to summon the employers and workpeople concerned to appear before him and to supply the necessary information. He may also summon expert witnesses. If the dispute seems likely to endanger the interests of the community, the conciliation officer may intervene on his own initiative. In other cases he may not start conciliation proceedings until he has heard the opinions of the parties to the dispute, and not at all if it is against the unanimous wish of the parties.

If the conciliation officer does not succeed in inducing the parties to effect a settlement of the dispute in the course of the negotiations, he may lay before them a proposal for settlement, to be accepted or rejected by them within a period fixed by him. If his proposal is accepted a written agreement on this basis is to be drawn up and signed by the parties. If the proposal is rejected the conciliation officer must advise the parties to refer the dispute to one or more arbitrators, whose award they bind themselves to accept. The conciliation officer must not himself act as arbitrator; but he must give the parties assistance in selecting an arbitrator and supply the arbitrator selected with all useful information.

An account of the conciliation negotiations and the proposal of the conciliator may be published, if publicity seems likely to further the settlement of the dispute, unless this course is unanimously opposed by both parties.

#### France.

In France bodies known as *Conseils de Prud'hommes*, organised in groups of trades and composed of employers and workpeople in equal numbers, have existed since 1806 for the settlement of disputes affecting individual workers.\*

The first law for the settlement of collective disputes was the Voluntary Conciliation and Arbitration Act of 27th December, 1892. This Act is still in operation, and it forms part of Book IV of the Labour Code, having been incorporated in the Code as recently as June, 1923. Under this law, either party to a dispute, or both parties jointly, may apply to the local magistrate (*juge de paix*) for the appointment of a conciliation committee; but the magistrate may himself take the initiative in the case of a strike or lock-out. If the conciliation committee fails to agree, an arbitration court may be set up at the request of either of the parties, each side naming one or more up to five arbitrators. Should the arbitrators fail to agree, the magistrate invites the parties to appoint one or more umpires, or a joint umpire. If the umpires do not agree, they may choose another umpire to give the casting vote, or the umpire may be nominated by the President of the local Civil Tribunal. The parties to the dispute are, however, subject to no compulsion at any stage of the proceedings. Applications to set the law in motion, refusals to assent, failure of one of the parties to reply, and the decisions of conciliation committees, arbitration courts, or an umpire, must all be made public.

According to the latest figures available—French strike statistics for the year 1920—resort to the Act was made in the case of 187 disputes in 1919 and of 191 disputes in 1920. In the latter year this action led to the settlement of 69 disputes by conciliation and nine by arbitration. Earlier experience of the working of the Act led to the conclusion that, where the law was put into operation, it was almost invariably at the request of the work-people, or on the initiative of the magistrate. In a considerable percentage of cases the offer of mediation was refused (36 per cent. of the total for the years 1900–8), for the most part by the employers. Where conciliation committees were formed by consent of both sides, however, a successful issue was reached in a large proportion of cases (60 per cent. of the cases in the years 1900–8).

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\* See also Belgian practice, p. 385.

Civil Servants and persons who "participate in the exercise of the public powers vested in the State" are forbidden to strike, their conduct in the matter being governed by sections 123-6 of the Penal Code, which provides penalties of imprisonment for not less than two months and deprivation of civil rights and of eligibility for employment in the public service for a term not exceeding ten years.

#### Italy.

There are at present (June, 1925) no compulsory powers generally, but the right to strike is withheld from members of the public services by the Penal Code as amended in 1889. By a Law of 7th July, 1907, all employees on State railways are declared to be "public officials," and private railway undertakings are required under a Law dated 30th June, 1906, to draw up and submit to the Ministry of Public Works a code of disciplinary rules, which must be in harmony with those applied in the service of the State railways.

#### Netherlands.

The Act of 4th May, 1923, for "furthering the peaceful settlement of disputes concerning labour matters and for the prevention of such disputes" relies chiefly on conciliation, and on influencing public opinion by the publication of the facts of the disputes and the decisions of the various conciliation and arbitration bodies. "Dispute" within the meaning of the Act is defined as any dispute (excluding actions at law) between workers and one or more employers over labour matters.

The Act provides for four agencies in the process of State mediation in disputes: The State Conciliator, the Conciliation Council, the Arbitration Court and the Committee of Enquiry.

State Conciliators are to be appointed by Royal Decree for each district into which the country is divided or for trades to be afterwards specified. Whenever in any commune a dispute occurs which threatens to give rise, or has given rise, to a strike or lock-out involving at least 50 workpeople, the Burgomaster has to notify the State Conciliator immediately, and the employers or workers affected by the dispute may request the State Conciliator to intervene. The Conciliator, if he considers the dispute of sufficient importance, gives advice as to the best means of reaching an amicable settlement, and, further, may recommend the parties either to apply for the appointment of a Conciliation Council, or to submit the dispute to the decision of an Arbitration Court. If he receives a written request for the intervention of a Conciliation Council from the employers and workers affected, he must proceed to form a council or to appoint a special conciliator.

A Conciliation Council must consist of a chairman and secretary and two or more members, but otherwise its composition and membership is arranged by the State Conciliator in agreement with the parties to the dispute. It may summon the employers and workpeople affected by the dispute, the officials of their respective trade associations, as well as other witnesses, and it may order experts to conduct an inquiry into the circumstances of the dispute. If a Conciliation Council is successful in promoting a settlement, a minute has to be drawn up and signed by the members of the Council and in the name of the parties to the dispute. If unsuccessful, the Council may, unless the parties undertake to refer the dispute to the decision of an Arbitration Court, express its opinion on all points of the dispute and on the means for settling it. A copy must be sent to the parties with a request that they inform the Council within a specified period whether they accept the proposed means of settlement. If they do not, the Council has the option of publishing its opinions.

No dispute may be referred to an Arbitration Court unless the parties pledge themselves, in a manner satisfactory to the State Conciliator, to accept and carry out the decision of the Court. The agreement between the parties, in co-operation with the State Conciliator, to refer the dispute to an Arbitration Court must be embodied in a document which, *inter alia*, includes the names and addresses of the chairman and members of the Court, the method by which these are to be appointed, the points in dispute and the period for which the award is to be in force. In addition to powers identical with those of the Conciliation Council mentioned above, and the right of taking evidence under oath from witnesses called before it, the Arbitration Court may require that books and other documents necessary for its information shall be laid before it by undertakings and institutions affected by the dispute. In certain cases the award of a Court may be nullified by the Minister responsible for the administration of the Act, but the nullification may not have retroactive effect. The Minister may order the Court to issue a new award or reverse its old one in the light of the reasons given by him for nullifying the award.

A Committee of Enquiry may be appointed by the Minister in a dispute which may seriously affect the interests of the community and in which at least three hundred workpeople are involved, if all the previously described means of settlement have failed. Such a committee, whose terms of reference are prescribed by the Minister, may subpoena witnesses and experts who are obliged to appear and furnish information. A Committee of Enquiry may, also, demand the production of books and other necessary documents by undertakings and institutions affected by the dispute. The Committee reports to the Minister, who may publish the report after consulting the trade associations of employers and workpeople affected by the dispute.

The prevention of disputes, which is one of the objects of the Act as mentioned in its title, is referred to in only one clause, which provides that on the request of employers and workers the State Conciliator may assist in concluding labour agreements, if these are likely to promote good relations between employers and workpeople and prevent disturbance of work.

Previous to the Act of May, 1923, the official machinery of conciliation was based on the Chambers of Labour, which were formed either for districts or for single industries. They were composed of an equal number of employers and workpeople, and had to meet at least four times a year. Whenever a dispute occurred or was threatened, a Chamber could appoint a conciliation board. The means of settlement recommended had to be notified in writing to both parties. No specific provision was made for enforcing arbitration.

The Act of May, 1923, does not apply to disputes between persons in the service of a statutory public corporation and the corporation, or between persons employed in railway or tramway services and the management of these services, but certain amendments were made in 1903 in the Criminal Code calculated to prevent trade unions of railway servants from organising strikes.

#### Portugal.

Generally there are no compulsory powers, but strikes or lock-outs are prohibited in public utility services until 8 or 12 days' notice, according to the nature of the undertaking, has been given, together with a statement of the causes of the strike or lock-out.

#### Spain.

A Royal Decree, dated 5th October, 1922, provides for the creation of joint committees for the settlement of disputes between employers and employed in agricultural, commercial, industrial, mining and transport undertakings. The committees are set up by the Minister of Labour or by the provincial authorities either on his or their own initiative or at the instance of the interested parties. They are of two kinds—permanent and *ad hoc*—and they may be set up for an industry, for a group of enterprises, for a particular trade or occupation, or for a single enterprise employing over five hundred workpeople. They may be either local or regional.

Each joint committee is composed of an equal number of employers and of workpeople, who must be actively engaged in the industry or occupation they represent. The chairman is to be non-partisan and chosen by agreement between the two sides, or, in default of agreement, nominated by the Minister of Labour. He has a casting vote only by the unanimous agreement of both sides; otherwise his function is purely conciliatory. The committee may either appoint technical experts, or request the Minister of Labour to nominate

them, to assist it in its deliberations. The Minister may, of his own accord, appoint technical experts to attend the meetings of the committee. In either case, such technical experts do not vote.

Permanent joint committees are to be established by Royal Order in the more highly industrialised districts. The members of the committees will be elected by secret ballot among the members of the employers' association and the trade unions concerned, or, where these do not exist, at separate meetings of employers and employed held for the purpose. Permanent joint committees are to be renewed every two years.

*Ad hoc* joint committees are to be set up as occasion arises to deal with particular disputes in the less industrialised districts. The members of the committee are to be appointed by the local authorities after consultation with the organisations of employers and workpeople affected by the dispute.

The committees may decide, by unanimity of votes, before discussing and deciding upon any subject within their competence, that any matter in dispute between the two sides shall be submitted for arbitration to the local authority, to an official organisation or to the Minister of Labour. The decisions of the committees are operative (*ejecutivos*) in accordance with the rules laid down in the Order establishing the committees.

#### *Public Utility Services.*

By an Act of April, 1909, which has special reference to strikes in public utility services, a declaration must be made to the authorities giving the cause of the dispute eight days before a strike or lock-out takes place in which the light, water or railway services would be affected, and five days beforehand in the case of tramways or where the inhabitants of a locality would be deprived of an object of general and necessary consumption.

A Royal Decree, dated 23rd December, 1923, provides for the creation of special labour courts for the railways, to settle disputes between the companies and their employees. There are District Railway Courts for each company or group of companies and a Central Railway Court for all companies. The District Courts are composed of a chairman, representatives of the railway companies and the workpeople, one member representing the users of the railways, and as secretary a railway engineer. The Central Court is composed of a chairman—a Chief Judge—together with six members representing the companies, six representing the workers, two members elected by the Higher Council of Railways (one representing the users and one the Government) and a secretary, an engineer. This Central Court will decide on appeal all questions which are within the jurisdiction of the District Courts. Further, both the Central and the District Courts will consider any question which the Government may decide to submit to them.



**Sweden.**

An Act of December, 1906, providing for the appointment of conciliators, whose principal duty was to "promote the settlement of disputes between employers and workpeople," was replaced by three new measures in April, 1920. The first of these was a law amending and extending the original law concerning the appointment of local official conciliators; the second established a permanent arbitration court to deal with disputes arising under collective agreements, while the third related to the appointment of special arbitrators for individual disputes.

Local Conciliators had been appointed by the law of 1906 for each of seven districts into which the country was divided for this purpose, but experience showed that disputes in certain important industries are usually concentrated in certain districts, and that, in consequence the conciliators attached to these districts acquire wide knowledge of conditions in such industries. In order to utilise this knowledge to the best advantage, the Act of 1920 provided that the Crown may decree that a conciliator, besides exercising his office in his own district, "shall act likewise outside his own district in a definite sphere of activity defined for the purpose," or that "a special sphere shall be referred to a special conciliator." These provisions, it is stated, apply particularly to agriculture and State enterprises. The power to nominate the conciliator in a dispute extending beyond the limit of a single district rests with the Department for Social Affairs, and the conciliator is to be appointed from among the ordinary conciliators. The Government may appoint a special conciliation board or a single conciliator in cases of extensive disputes, or those which threaten public convenience.

The Permanent Arbitration Court was established in 1920 to provide for employers and workpeople a tribunal for the settlement of disputes arising out of collective agreements without recourse to strikes or lock-outs, or to legal process in the ordinary courts. The Court consists of seven members, three impartial persons (i.e. the chairman, vice-chairman and a jurist), appointed by the Government, together with two members appointed by the Council of the Employers' Federation and two by the Federation of Trade Unions. Recourse to the Court is voluntary. The parties may either provide for it in a collective agreement, or, when a dispute has arisen, may mutually agree to refer the matter to the Court for decision. The competence of the Court, also, depends on the nature of the agreement made between the parties. The decision of the Court is final, and it must not intervene where the parties retain the right to challenge its findings, nor in cases already pending before a Court of Law. The cost of the proceedings is borne by the State.

Special Arbitrators may, on request, be appointed to deal with individual disputes arising out of collective agreements, involving matters of minor importance, but it is intended that the permanent

Arbitration Court shall deal chiefly with disputes which involve matters of important principle or practice. The Act of 1920 provided that persons might be appointed by the Crown at the request of the parties to decide disputes referred by the parties to arbitration or to take part, as independent chairman, in boards for the settlement of disputes. Such chairmen are appointed for a definite period, but not for more than two years at a time.

According to reports furnished for 1924 by the conciliators, the total number of disputes subjected to some measure of conciliation was 243 in 1924, compared with 194 in 1923, and an average of 200 in the years 1915-1923. In each of these cases conciliation was offered or requested, but in some cases no negotiations took place before the Conciliator. In 1920 the number of disputes which became the subject of negotiations was 205, affecting 2,591 employers and 187,829 workpeople, and in 118 cases there was a cessation of work (629 employers and 16,608 workpeople). Conciliators mediated in 47 per cent. of the cases of suspension of work, covering 70 per cent. of the workpeople affected by these disputes. In 105 of the 118 cases of a cessation, work had ceased before negotiations began; in the other 13 cases the stoppage was preceded by negotiations before the Conciliator.

Of the 205 cases which formed the subject of negotiations 171, or 83·4 per cent., were solved during the year. Initiative came in 158 cases from the Conciliator, in 12 from the employers, in 8 from the workers, and in 27 from both parties.

#### Switzerland.

Conciliation and arbitration in Switzerland has a history dating back to 1882, when the Government of the Canton of Geneva established industrial courts on the model of the French *Conseils de Prud' hommes*.<sup>\*</sup> Other Cantons followed this example, and the powers of the courts were in some instances extended to cover collective disputes, notably in Basel-Stadt, St. Gall and Geneva.

The whole question of conciliation and arbitration was dealt with by federal enactment in clauses 30-35 of the Federal Factory Act of 18th June, 1914, which read:—

"30. For the amicable settlement of collective disputes between factory owners and workpeople, and also in regard to the interpretation and the execution of collective agreements, the Cantons shall establish permanent Conciliation Boards, bearing in mind the requirements of the various industries. The organisation of the Cantonal Conciliation Boards shall be subject to the approval of the Federal Council.

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<sup>\*</sup> See p. 388.

" 31. The Conciliation Boards shall intervene on their own initiative or upon request of the authorities or of the interested parties. Any person subpoenaed by a Board shall be compelled under penalty of a fine to appear, to take part in the proceedings, and to give all necessary information. The procedure shall be free of charge.

" 32. Should a dispute extend beyond the limits of the Canton, the Federal Council shall nominate the Conciliation Board. The Federal Council shall also be entitled to appoint a Cantonal Board to arbitrate.

" 33. Should a number of factory owners and their work-people, belonging to the same industry, unanimously appoint a Conciliation Board, the latter shall, as far as they are concerned, replace the public board.

" 34. The parties shall have the right in every case to empower the Conciliation Board to settle their difference by means of an arbitral award. Should the Board have been established by mutual consent, the parties may extend such power to all their differences.

" 35. The Cantons shall have the right to confer more extensive powers on their Conciliation Boards than those provided for in the present Act."

These clauses were implemented by Federal Resolution of 1st February, 1918, concerning the establishment of Conciliation Offices. The date, 1st April, 1918, was then fixed as that on which the clauses in question should come into operation.

It was reported in " Soziale Praxis " for 4th September, 1924, that Conciliation Offices have been set up in all except four of the Cantons.

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## CHAPTER VI.

## STATISTICAL TABLES.

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TABLE I.  
POPULATION OF GREAT BRITAIN—NUMBERS AND PERCENTAGES  
IN CERTAIN AGE-GROUPS (1881-1921).

<i>Males.</i>						
	Total.	Under 10.	10 & 11.	12 & 13.	14 & 15.	16 & over.
1881 ..	14,439,377	3,812,444			10,626,933	
1891 ..	16,003,118	3,964,942			12,038,176	
1901 ..	17,902,368	4,112,028		1,524,332		12,266,008
1911 ..	19,754,447	4,309,466	810,782	792,633	772,499	13,069,067
1921 ..	20,422,881	3,926,747	823,798	846,634	822,474	14,003,228
<i>Females.</i>						
1881 ..	15,270,635	3,816,431			11,454,204	
1891 ..	17,025,054	3,963,711			13,061,343	
1901 ..	19,097,578	4,117,751		1,523,796		13,456,031
1911 ..	21,076,949	4,288,216	811,425	792,516	773,429	14,411,363
1921 ..	22,346,315	3,863,601	815,776	839,469	818,647	16,008,822
<i>Males and Females together.</i>						
1881 ..	29,710,012	7,628,875			22,081,137	
1891 ..	33,028,172	7,928,653			25,099,519	
1901 ..	36,999,946	8,229,779		3,048,128		25,722,039
1911 ..	40,831,396	8,597,682	1,622,207	1,585,149	1,545,928	27,480,430
1921 ..	42,769,196	7,790,348	1,639,574	1,686,103	1,641,121	30,012,050

THE ABOVE FIGURES AS PERCENTAGES OF THE TOTAL OF  
THE YEAR.

<i>Males.</i>						
	Total.	Under 10.	10 & 11.	12 & 13.	14 & 15.	16 & over.
1881 ..	100	26			74	
1891 ..	100	25			75	
1901 ..	100	23		9		68
1911 ..	100	22	4	4	4	66
1921 ..	100	19	4	4	4	69
<i>Females.</i>						
1881 ..	100	25			75	
1891 ..	100	23			77	
1901 ..	100	22		8		70
1911 ..	100	20	4	4	4	68
1921 ..	100	17	4	4	4	71
<i>Males and Females together.</i>						
1881 ..	100	26			74	
1891 ..	100	24			76	
1901 ..	100	22		8		70
1911 ..	100	21	4	4	4	67
1921 ..	100	18	4	4	4	70

TABLE 2.

POPULATION OF GREAT BRITAIN—INCREASE OR DECREASE (—)  
IN CERTAIN AGE-GROUPS (1871-1921).

<i>Males.</i>				
Period.	Total Increase.	Under 10 years of age.	10 years of age & over.	
Between 1871-1881 .. ..	1,777,300	489,730	1,287,570	
.. 1881-1891 .. ..	1,563,741	152,498	1,411,243	
.. 1891-1901 .. ..	1,899,250	147,086	1,752,164	
.. 1901-1911 .. ..	1,852,079	197,438	1,654,641	
.. 1911-1921 .. ..	668,434	- 382,719	1,051,153	
<i>Females.</i>				
Between 1871-1881 .. ..	1,860,428	500,939	1,359,489	
.. 1881-1891 .. ..	1,754,419	147,280	1,607,139	
.. 1891-1901 .. ..	2,072,524	154,040	1,918,484	
.. 1901-1911 .. ..	1,979,371	170,465	1,808,906	
.. 1911-1921 .. ..	1,269,366	- 424,615	1,693,981	
<i>Males and Females together.</i>				
Between 1871-1881 .. ..	3,637,728	990,669	2,647,059	
.. 1881-1891 .. ..	3,318,160	299,778	3,018,382	
.. 1891-1901 .. ..	3,971,774	301,126	3,670,648	
.. 1901-1911 .. ..	3,831,450	367,903	3,463,547	
.. 1911-1921 .. ..	1,937,800	- 807,334	2,745,134	

THE ABOVE FIGURES AS PERCENTAGES OF THE TOTALS OF  
THE PREVIOUS CENSUS.

<i>Males.</i>				
Period.	Total Increase.	Under 10 years of age.	10 years of age & over.	
Between 1871-1881 .. ..	14·04	14·74	13·79	
.. 1881-1891 .. ..	10·83	4·00	13·28	
.. 1891-1901 .. ..	11·87	3·71	14·56	
.. 1901-1911 .. ..	10·35	4·80	12·00	
.. 1911-1921 .. ..	3·38	- 8·88	6·81	
<i>Females.</i>				
Between 1871-1881 .. ..	13·87	15·11	13·47	
.. 1881-1891 .. ..	11·49	3·86	14·03	
.. 1891-1901 .. ..	12·17	3·89	14·69	
.. 1901-1911 .. ..	10·36	4·14	12·08	
.. 1911-1921 .. ..	6·02	- 9·90	10·09	
<i>Males and Females together.</i>				
Between 1871-1881 .. ..	13·95	14·92	13·62	
.. 1881-1891 .. ..	11·17	3·93	13·67	
.. 1891-1901 .. ..	12·03	3·80	14·62	
.. 1901-1911 .. ..	10·36	4·47	12·04	
.. 1911-1921 .. ..	4·75	- 9·39	8·52	

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TABLE 3.

PERSONS SHOWN IN THE CENSUS AS FOLLOWING DEFINITE OCCUPATIONS—NUMBERS AND PERCENTAGES IN CERTAIN AGE-GROUPS (1881-1921).

## A. GREAT BRITAIN.

The figures in italics represent the numbers immediately above them as percentages of the corresponding totals of the year as in Table 1.

*Males.*

	Total 10 years & over.	10 & 11.	12 & 13.	14 & 15.	16 & over.
1881 ..	8,851,486 <i>83.3</i>	*	*	*	*
1891 ..	10,010,324 <i>83.2</i>	*	*	*	*
1901 ..	11,548,164 <i>83.7</i>	2,508	146,599	11,399,057 <i>92.9</i>	
		<i>9.8</i>			
1911 ..	12,929,619 <i>83.7</i>	98,157 <i>6.1</i>		564,843 <i>73.1</i>	12,266,619 <i>93.9</i>
1921 ..	13,655,895 <i>82.8</i>	—	43,876 <i>5.2</i>	532,441 <i>64.7</i>	13,079,578 <i>93.4</i>

*Females.*

1881 ..	3,887,128 <i>33.9</i>	*	*	*	*
1891 ..	4,489,408 <i>34.4</i>	*	*	*	*
1901 ..	4,763,375 <i>31.8</i>	1,017	75,897	4,686,461 <i>34.8</i>	
		<i>5.0</i>			
1911 ..	5,423,944 <i>32.3</i>	49,866 <i>3.1</i>		370,348 <i>47.9</i>	5,003,730 <i>34.7</i>
1921 ..	5,701,424 <i>30.8</i>	—	23,876 <i>3.4</i>	366,033 <i>44.7</i>	5,306,515 <i>33.1</i>

*Males and Females together.*

1881 ..	12,738,614 <i>57.7</i>	*	*	*	*
1891 ..	14,499,732 <i>57.8</i>	*	*	*	*
1901 ..	16,311,539 <i>56.7</i>	3,525	222,496	16,085,518 <i>62.5</i>	
		<i>7.4</i>			
1911 ..	18,353,563 <i>56.9</i>	148,023 <i>4.6</i>		935,191 <i>80.5</i>	17,270,349 <i>82.8</i>
1921 ..	19,357,319 <i>55.3</i>	—	72,752 <i>4.3</i>	898,474 <i>64.7</i>	18,386,093 <i>61.3</i>

\* Figures not available.

TABLE 3—continued.

## B. ENGLAND AND WALES.

*Note.*—The following figures for England and Wales are given in addition to the foregoing figures for Great Britain, in view of the fact that some of the subsequent occupational tables relate to England and Wales only. Percentages corresponding to those in the foregoing table have not been given. They would not in any case differ from the percentages for Great Britain by as much as one unit (1.0).

*Males.*

	Total, 10 years & over.	10 & 11.	12 & 13.	14 & 15.	16 & over.
1881 ..	7,758,907	*	*	*	*
1891 ..	8,806,415	*	*	*	*
1901 ..	10,156,976	2,174	135,956	10,018,846	
1911 ..	11,453,665	3,881	93,260	501,129	10,855,395
1921 ..	12,112,718	—	43,387	473,799	11,595,532

*Females.*

1881 ..	3,402,809	*	*	*	*
1891 ..	3,945,580	*	*	*	*
1901 ..	4,171,751	785	69,477	4,101,489	
1911 ..	4,830,734	217	49,059	326,502	4,454,956
1921 ..	5,065,332	—	28,605	323,510	4,713,217

*Males and Females together.*

1881 ..	11,161,716	*	*	*	*
1891 ..	12,751,995	*	*	*	*
1901 ..	14,328,725	2,959	205,433	14,120,333	
1911 ..	16,284,399	4,098	142,319	827,631	15,310,351
1921 ..	17,178,050	—	71,992	797,309	16,308,749

\* Figures not available.



TABLE 4.

NUMBERS AGED 10 YEARS AND OVER ENGAGED IN THE VARIOUS INDUSTRIES, ENGLAND AND WALES, SCOTLAND, GREAT BRITAIN, JUNE, 1921.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>ALL INDUSTRIES</b> .. .. .	17,178,050	2,179,269	19,357,319
<b>I.—Fishing.</b>			
Sea Fishing and Oyster Beds ..	39,406	23,572	62,978
Fishing in Rivers and Inland Waters, including Pisciculture	840	1,439	2,279
<b>Total, Group I</b> .. .. .	40,246	25,011	65,257
<b>II.—Agriculture.</b>			
Farming (not Fruit or Poultry) and Stock-rearing	965,624	162,564	1,128,188
Poultry Farming .. .. .	12,206	512	12,718
Market Gardening and Fruit Farming	68,275	3,914	72,189
Flower and Seed Growing and Nursery Gardening	33,068	3,244	36,312
Other or Undefined Gardening ..	29,400	2,575	31,975
Forestry .. .. .	8,897	2,919	11,816
Other Agricultural Industries ..	6,492	7,358	13,850
<b>Total, Group II</b> .. .. .	1,123,962	183,086	1,307,048
<b>III.—Mining and Quarrying and Treatment of Non-Metalliciferous Mine and Quarry Products.</b>			
1. Mining and Quarrying—			
Coal Mines (including all Minerals obtained from Coal Mines)	1,132,668	163,112	1,295,780
Coal, Iron and Steel Companies (branch of Industry not known)	8,794	—	8,794
Iron Ore Mines and Quarries ..	20,147	651	20,798
Lead Mines .. .. .	1,656	318	1,974
Tin and Copper Mines .. .. .	4,254	15	4,269
Stone Quarries and Mines ..	34,506	3,686	38,192
Slate Quarries and Mines ..	10,083	327	10,410
Clay, Sand, Gravel and Chalk Pits	10,658	342	11,000
Oil Shale Mines, Oil Wells ..	202	8,813	9,015
Salt Mines, Brine Wells and Salt Works	6,504	95	6,599
Other Mines and Quarries ..	2,258	183	2,441

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>III.—Mining and Quarrying and Treatment of Non-Metalliferous Mine and Quarry Products—continued.</b>			
<b>2. Treatment of Non-Metalliferous Mine and Quarry Products (excluding Gas Works)—</b>			
Coke Ovens and By-Product Works	12,195	141	12,336
Patent Fuel Manufacture ..	3,287	77	3,364
Mineral Oil Refining .. ..	4,466	1,220	5,686
Cement Manufacture .. ..	18,937	334	19,271
Artificial Stone and Concrete ..	5,298	178	5,476
Lime Kilns and Whiting Works	3,362	302	3,664
Ganister Manufacture (other than Ganister Bricks)	206	3	209
Other Manufactures .. ..	4,247	155	4,402
Total, Group III .. ..	1,283,728	179,952	1,463,680
<b>IV.—Manufacture of Bricks, Pottery, Glass.</b>			
Ganister and Silica Bricks .. ..	1,869	165	2,034
Bricks and Tiles (not Glazed Tiles), Fire Bricks and Fire-clay Goods	57,396	5,821	63,217
Earthenware, China, Porcelain, Terra Cotta, Glazed Tiles	70,226	2,345	72,571
Glass (other than Bottles) .. ..	26,418	1,225	27,643
Glass Bottles .. .. .	18,165	2,431	20,596
Miscellaneous Products of Clay and Sand (not elsewhere enumerated)	2,467	453	2,920
Total, Group IV .. ..	176,541	12,440	188,981
<b>V.—Manufacture of Chemicals, Dyes, Explosives, Paints, Non-Mineral Oils, Grease.</b>			
<b>1. Chemicals—</b>			
Alkalis and Heavy Acids .. ..	26,197	2,501	28,698
Tar and Wood Distillation .. ..	5,942	577	6,519
Dyes .. .. .	8,521	327	8,848
Drugs and Fine Chemicals .. ..	23,723	1,724	25,447
Fertilizers, Sheep Dips and Disinfectants	7,704	1,681	9,385
Other .. .. .	13,156	1,138	14,294
<b>2. Explosives—</b>			
Explosives .. .. .	4,869	3,347	8,216
Cartridges, Small Arms Ammunition (including Shell Filling Factories), Fuses, Rockets, &c.	7,963	423	8,386

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<i>V.—Manufacture of Chemicals, Dyes, Explosives, Paints, Non-Mineral Oils, Grease—continued.</i>			
3. White Lead, Paints and Varnish—			
Red and White Lead and Litharge	2,152	38	2,190
Paints and Colours .. ..	15,665	1,517	17,182
Varnish .. .. .	2,936	56	2,992
4. Non-Mineral Oils, Greases, Glue, &c.—			
Vegetable Oils, Crushing, Refining; Cake-making	20,867	1,259	22,126
Fat Extracting and Refining ..	2,003	281	2,284
Glue, Size, Gelatine .. ..	3,454	181	3,635
Soap, Candles, Glycerine ..	32,051	1,422	33,473
Other .. .. .	2,620	43	2,663
5. Miscellaneous—			
Blue and Polishes .. ..	9,246	125	9,371
Dextrine and Gum .. ..	515	42	557
Ink .. .. .	1,927	169	2,096
Matches .. .. .	5,925	230	6,155
Other .. .. .	241	6	247
Total, Group V .. ..	197,677	17,087	214,764
<i>VI.—Manufacture of Metals, Machines, Implements, Conveyances, Jewellery, Watches.</i>			
1. Smelting, Converting, Refining and Rolling of Iron and Steel:			
Pig Iron Manufacture (Blast Furnaces)	32,044	3,585	35,629
Puddling Furnaces and Iron Rolling Mills	26,181	3,059	29,240
Steel Works and Steel Rolling Mills	150,368	31,840	182,208
Iron Works (precise branch not stated)	4,632	3,020	7,652
Slag and Slag Wool .. ..	2,831	25	2,856
2. Extracting and Refining of other Metals and Alloys—			
Copper .. .. .	5,677	87	5,764
Lead .. .. .	2,345	100	2,445
Zinc and Spelter .. ..	920	41	961
Other Metals and Alloys ..	9,238	1,037	10,275

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
VI.— <i>Manufacture of Metals, Machines, Implements, Conveyances, Jewellery, Watches</i> —continued.			
3. Founding and other Secondary Processes in Metal Working—			
General Iron Foundries ..	53,230	26,986	80,216
Steel Foundries .. ..	4,620	3,179	7,799
Brass and other Copper Alloy Foundries and Cast Metal Finishing .. ..	23,970	3,596	27,566
Other Metal Foundries .. ..	2,988	258	3,246
Pattern Making .. ..	1,814	310	2,124
Forging of Chains and Anchors .. ..	6,977	106	7,083
Other Forging .. ..	36,539	7,126	43,665
Tin plate .. ..	24,810	242	25,052
Galvanised Sheet .. ..	12,977	164	13,141
Tubes, Iron or Steel .. ..	22,895	9,946	32,841
Rolling Mills and Tube and Pipe Making—Non-Ferrous Metals .. ..	15,880	250	16,130
Wire, Wire Netting, Wire Rope .. ..	23,437	2,243	25,680
Other .. ..	639	17	656
4. Engineering (not Marine or Electrical)—			
Stationary Engines and Power Transmission Plant .. ..	25,277	837	26,114
Steam Locomotives, Road and Rail, and Railway Plant .. ..	82,787	14,455	97,242
Agricultural Engineering .. ..	36,561	1,249	37,810
Textile Machinery and Accessories .. ..	75,500	4,243	79,743
Heating and Ventilating Engineering .. ..	9,981	1,349	11,330
Machine Tools .. ..	19,709	1,354	21,063
Other .. ..	280,011	67,810	347,821
5. Electrical Installations, Cables and Apparatus—			
Generators, Motors, Transformers, Switchgear .. ..	40,335	2,700	43,035
Cables, Wire and Flex .. ..	34,709	438	35,147
Incandescent Lamps .. ..	10,648	33	10,681
Wiring and Contracting .. ..	28,764	6,140	34,904
Other Electrical Manufactures .. ..	51,372	207	51,579
6. Vehicles—			
Rolling-stock for Railways and Tramways .. ..	73,378	3,692	77,070
Self-propelled Vehicles (not steam) and Cycles .. ..	199,086	10,704	209,790

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TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<i>VI.—Manufacture of Metals, Machines, Implements, Conveyances, Jewellery, Watches.—continued.</i>			
6. Vehicles—continued.			
Carriages, Coach and Motor Car Bodies	29,273	2,584	31,857
Carts and Vans, Motor Lorry Bodies and Wheelwrights' Work	18,571	861	19,432
Cycle and Motor Accessories ..	21,476	116	21,592
Aeroplanes, Airships and Bal- loons	8,677	90	8,767
Other Vehicles .. .. .	6,515	147	6,662
7. Shipbuilding and Repairing and Marine Engineering	283,443	123,724	407,167
8. Cutlery and Small Tools (not Machine Tools)—			
Cutlery .. .. .	17,724	92	17,816
Files .. .. .	5,703	72	5,775
Saws .. .. .	2,548	120	2,668
Other Tools .. .. .	21,745	759	22,504
Pins .. .. .	1,672	4	1,676
Needles and Fish-hooks ..	5,445	6	5,451
9. Other Metal Industries (not Precious Metals, Jewellery, or Plate)—			
Axles, Axle Boxes, Springs and other Coach Iron-work	2,182	24	2,206
Bedsteads (not Wood) and Wire Mattresses	6,083	91	6,174
Boilers and Tanks .. ..	20,141	6,149	26,290
Bolts, Nuts, Rivets, Screws ..	24,810	1,986	26,796
Brass and Yellow Metal (Sheet Goods) Spinning and Finish- ing :—			
Builders' and Cabinet Makers' Light Brass Goods	2,064	9	2,073
Lamps (not Cycle or Motor), and Lighting Fittings	12,035	114	12,149
Other Brass Goods .. ..	9,957	47	10,004
Constructional Engineering, Bridge and Girder Works	26,446	8,668	35,114
Dies, Seals, Coins, Medals ..	5,163	230	5,393
Gas and Water Meters ..	5,042	985	6,027
Harness Furniture and Cart Gear	3,041	15	3,056
Hollow-ware of Iron or Steel (Cast or Wrought)	11,808	168	11,976

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>VI.—Manufacture of Metals, Machines, Implements, Conveyances, Jewellery, Watches—continued.</b>			
9. Other Metal Industries (not Pre- cious Metals Jewellery, or Plate)—continued.			
Japanning and Enamelling ..	2,576	121	2,697
Locks, Keys and Latches ..	7,857	39	7,896
Nails and Tacks .. ..	3,620	501	4,121
Safes .. .. .	2,378	31	2,409
Scales and Weighing Machines	8,665	331	8,996
Tin Boxes, Canisters, and Con- tainers	12,525	984	13,509
Other Sheet Metal Working (not Brass), Press Working, Stamp- ing and Piercing	33,803	1,856	35,659
Small Arms .. .. .	7,544	144	7,688
Stoves, Grates, Ranges ..	10,986	108	11,094
Type-founding .. .. .	1,338	225	1,563
Other .. .. .	49,543	1,673	51,216
10. Precious Metals, Jewellery, Plate : Jewellery (including Imitation Jewellery) .. .. .			
Diamond and Precious Stone- cutting	18,624	550	19,174
Watches and Clocks (including Material and Parts)	1,390	85	1,475
Gold, Silver and Electro Plate ; Nickel Silver and Britannia Metal-ware	17,542	1,940	19,482
Other .. .. .	26,137	381	26,518
Other .. .. .	6,792	152	6,944
Total, Group VI .. ..	2,196,014	368,610	2,564,624
<b>VII.—Manufacture of Textiles and Tex- tile Goods (not Dress), Cellulose.</b>			
1. Cotton—			
Carding, Spinning, Doubling, and Thread Mills	209,964	17,396	227,360
Weaving .. .. .	377,971	7,529	385,500
Velvet and Fustian Cutting ..	3,869	3	3,872
Other or Undefined Cotton Manufactures	3,751	81	3,832
2. Wool, Worsted and Shoddy—			
Combing and Top Making ..	11,556	12	11,568
Worsted Spinning (including Camel Hair, Mohair, and Al- paca)	52,524	1,189	53,713

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>VII.—Manufacture of Textiles and Textile Goods (not Dress), Cellulose—continued.</b>			
<b>2. Wool, Worsted and shoddy—contd.</b>			
Worsted Weaving (including Camel Hair, Mohair, and Alpaca)	55,028	225	55,253
Mungo Making, Rag Grinding and Carbonising	6,173	1	6,174
Woolen Manufacture (Spinning and subsequent processes)	111,155	20,927	132,082
Felt (not woven) .. ..	899	3	902
<b>3. Silk—</b>			
Artificial Silk Spinning ..	4,046	17	4,063
Silk Throwing, Silk Spinning, Silk (including Artificial Silk) Weaving	29,361	629	29,990
<b>4. Flax, Hemp, Jute—</b>			
Flax and Hemp (including Thread)	4,088	14,821	18,909
Jute (including Thread) ..	512	33,550	34,062
Flax, Hemp, Jute (not separately specified)	74	5,451	5,525
<b>5. Miscellaneous Products—</b>			
Hosiery and other Knitted Goods	80,372	15,306	95,678
Lace .. .. .	23,725	3,118	26,843
Carpets and Rugs .. ..	17,069	6,556	23,625
Rope, Cord, Twine .. ..	13,883	5,272	19,155
Tapes, Smallwares, Elastic Web	17,079	412	17,491
Asbestos .. .. .	3,762	115	3,877
Hair Curling, Spinning and Weaving; Hair Felt	2,089	390	2,479
Preparing, Spinning and Weaving of other or Mixed Fibres	5,736	166	5,902
Tents, Tarpaulins and Canvas Goods	8,054	2,396	10,450
Hemming and Embroidering ..	6,834	281	7,115
Making of other Textile Goods (not Articles of Dress)	2,438	27	2,465
<b>6. Textile Dyeing, Printing, Bleaching, Calendering, Finishing—</b>			
Bleaching, Printing, Dyeing, Finishing	96,908	15,160	112,068
Making-up and Export Packing	4,909	133	5,042
<b>Total, Group VII .. ..</b>	<b>1,153,829</b>	<b>151,166</b>	<b>1,304,995</b>

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>VIII.—Preparation of Skins and Leather and Manufacture of Goods of Leather and Leather Substitute (not Boots or Shoes).</b>			
<b>1. Furs, Skins, Leather—</b>			
Furriers and Fur Dressing ..	12,338	813	13,151
Fellmongery .. .. .	3,081	461	3,542
Tanning, Currying and Leather Dressing	31,003	2,396	33,399
<b>2. Saddlery, Harness, Bags, Trunks, and other Goods of Leather and Leather Substitute (not Boots or Shoes)—</b>			
Saddlery, Harness and Whips ..	12,280	1,304	13,584
Leather Belting .. .. .	2,369	379	2,748
Bags, Trunks and other Goods of Leather and Leather Substi- tute (not Boots or Shoes)	19,401	668	20,069
Total, Group VIII .. .. .	80,472	6,021	86,493
<b>IX.—Manufacture of Clothing.</b>			
Tailoring .. .. .	288,200	29,053	317,253
Dress and Blouse Making .. ..	150,445	14,521	164,966
Shirts, Collars, Overalls .. ..	31,780	3,304	35,084
Stays and Corsets .. .. .	14,719	303	15,022
Underclothing .. .. .	12,527	1,015	13,542
Handkerchiefs, Scarves, Ties ..	3,695	249	3,944
Millinery .. .. .	40,491	2,488	42,979
Straw Hats (including Straw Plait)	12,191	40	12,231
Cloth Hats and Caps .. .. .	4,355	363	4,718
Felt Hats .. .. .	10,814	86	10,900
Other Hats and Caps .. .. .	7,152	418	7,570
Gloves (not Knitted or Rubber) ..	10,396	48	10,444
Boots, Shoes, Slippers (not Rubber)	195,237	13,598	208,835
Clogs .. .. .	3,030	143	3,173
Other .. .. .	20,646	1,259	21,905
Total, Group IX .. .. .	805,678	66,888	872,566
<b>X.—Manufacture of Food, Drink, To- bacco.</b>			
<b>1. Food—</b>			
Grain Milling .. .. .	44,475	3,615	48,090
Cereal Foods and Starches (in- cluding Industrial Starch)	5,242	1,007	6,249
Cattle and Poultry Foods (not Oil Cake)	2,526	111	2,637



TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>X.—Manufacture of Food, Drink, Tobacco—continued.</b>			
1. Food—continued.			
Bread and Flour Confectionery	142,251	23,628	165,879
Biscuits .. .. .	23,542	4,988	28,530
Sugar Refining (including Glucose and Invert Sugar)	11,241	2,169	13,410
Sugar Confectionery (Sweets) ..	33,510	6,355	39,865
Jam Making and Fruit Preserving	20,174	2,317	22,491
Cocoa and Chocolate .. ..	40,990	3,365	44,355
Bacon, Hams, Lard and Sausages	5,347	1,497	6,844
Other Meat Preserving .. ..	6,577	563	7,140
Fish Curing and Preserving ..	4,770	10,754	15,524
Butter, Cheese, Condensed and Dried Milk	9,099	613	9,712
Margarine .. .. .	8,288	714	9,002
Vinegar, Pickles, Spices and other Condiments	9,374	343	9,717
Other (including Tripe Dressing and Gut Scraping)	10,177	880	11,057
2. Drink—			
Maltings .. .. .	5,751	361	6,112
Beer Breweries .. .. .	81,300	5,621	86,921
Other Breweries (not Vinegar)	638	8	646
Distilling, Rectifying and Compounding of Potable Spirits	3,350	6,616	9,966
Cider and Perry .. .. .	966	15	981
Mineral and Aerated Waters ..	17,275	3,058	20,333
Bottling of Beer, Wines, Spirits, &c.	6,588	233	6,821
Other .. .. .	886	13	899
3. Tobacco, Cigars, Cigarettes, Snuff			
	46,381	3,000	49,381
Total, Group X .. .. .	540,718	81,844	622,562
<b>XI.—Woodworking, Manufacture of Cane and Basketware, Furniture, Fittings (not elsewhere enumerated).</b>			
1. Woodworking and Basketware—			
Sawmills and Joinery Works; Dealing in Timber	79,915	16,586	96,501
General and Jobbing Carpentry	34,203	16,798	51,001
Cooperages .. .. .	4,958	2,097	7,055
Wooden Boxes and Packing Cases	10,525	1,839	12,364

TABLE 4—*continued.*

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
<b>XI.—Woodworking, Manufacture of Cane and Basketware, Furniture, Fittings (not elsewhere enumerated) —continued.</b>			
1. Woodworking and Basketware— <i>continued.</i>			
Wood Turning and Wooden Ware (not Bobbins)	3,987	285	4,272
Basketware .. .. .	9,439	687	10,126
Other .. .. .	8,852	621	9,473
2. Furniture (not Metal or Basket); Fittings—			
Cabinet and Furniture Making and Upholstering	79,267	10,956	90,223
Bedding and Mattresses (not Wire)	3,491	725	4,216
House and Shop Fittings (not elsewhere enumerated), Shop Fitting	19,093	699	19,792
Wood Carving, Carving and Gilding; Picture Frames	7,802	667	8,469
Other .. .. .	324	25	349
Total, Group XI .. ..	261,856	51,985	313,841
<b>XII.—Paper Making, Manufacture of Stationery and Stationery Requisites, Printing, Bookbinding and Photo- graphy.</b>			
1. Paper and Board Making, Coating, Enamelling	43,088	12,830	55,918
2. Paper Goods, Stationery and Sta- tionery Requisites—			
Wall Papers .. .. .	5,583	135	5,718
Cardboard Boxes .. .. .	24,061	1,287	25,348
Paper Bags, Envelopes, Sta- tionery	26,712	5,022	31,734
Compressed Paper, Paper Vul- canite and Articles thereof	1,602	8	1,610
Pencils, Penholders, Fountain and Stylographic Pens	3,070	28	3,098
Other Stationery and Type- writing Requisites	3,434	206	3,640
Other .. .. .	6,834	185	7,019
3. Printing, Bookbinding and Photo- graphy—			
Production of Newspapers and Periodicals	56,488	4,648	61,136

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
XII.— <i>Paper Making, Manufacture of Stationery and Stationery Requisites, Printing, Bookbinding and Photography—continued.</i>			
3. Printing, Bookbinding and Photography—continued.			
Production of Printed Books and Music	11,781	3,573	15,354
Production of Account Books (including Machine Ruling)	2,311	292	2,603
*Government Printing and Bookbinding	1,563	5	1,568
Job and General Letterpress Printing	119,877	12,062	131,939
Lithography and Photo-Lithography	14,198	1,754	15,952
Process Engraving, Stereotyping and Electrotyping	4,227	259	4,486
Bookbinding .. .. .	10,990	1,708	12,698
Photography .. .. .	16,476	1,846	18,322
Other (excluding Machine Ruling)	4,513	230	4,743
Total, Group XII .. .. .	356,808	46,078	402,886
XIII.— <i>Building, Decorating, Stone and Slate Cutting and Dressing, and Contracting.</i>			
Stone Cutting, Dressing, Turning	1,463	1,867	3,330
Slate Cutting, Dressing, Turning ..	680	32	712
Building and Contracting .. .. .	720,670	65,655	786,325
Mine and Well Sinking .. .. .	1,544	217	1,761
Other .. .. .	2,011	58	2,069
Total, Group XIII .. .. .	726,368	67,829	794,197
XIV.— <i>Other Manufacturing Industries.</i>			
Rubber Boots and Shoes .. .. .	1,332	388	1,720
Tyres and other Rubber Goods ..	44,967	7,825	52,792
Linoleum, Leather Cloth, Oil Cloth and Table Baize	9,218	3,669	12,887
Bone, Horn, Ivory, Tortoiseshell	1,531	658	2,189
Celluloid and Casein Compositions	3,026	25	3,051
Buttons .. .. .	5,851	61	5,912
Feather Dressing, Cleaning and Dyeing	2,455	43	2,498

\* Includes only those engaged in Government Printing Works.

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total Great Britain.
<b>XIV.—Other Manufacturing Industries</b> —continued.			
Brooms and Brushes .. ..	16,576	684	17,260
Scientific Instruments and Apparatus	25,345	2,906	28,251
Photographic Instruments and Apparatus	3,983	62	4,045
Photographic Plates, Films and Papers	2,760	9	2,769
Pianos and Organs (including Actions)	16,491	438	16,929
Gramophones, Phonographs, &c. (including Records)	3,817	20	3,837
Other Musical Instruments .. ..	1,630	96	1,726
Toys, Games and Sports Requisites	17,795	1,172	18,967
Tobacco Pipes (not Clay) .. ..	2,956	31	2,987
Jewel, &c., Cases and Fancy Boxes	2,176	296	2,472
Artificial Flowers .. ..	4,044	20	4,064
Other defined Manufacturing Industries	14,555	1,496	16,051
Minor Multiple or Ill-defined Manufacturing Industries	4,514	168	4,682
<b>Total, Group XIV .. ..</b>	<b>185,022</b>	<b>20,067</b>	<b>205,089</b>
<b>Total in Manufacturing Industries IV to XIV</b>	<b>6,680,983</b>	<b>890,015</b>	<b>7,570,998</b>
<b>XV.—Gas, Water and Electricity ..</b>	<b>162,767</b>	<b>16,451</b>	<b>179,218</b>
<b>XVI.—Transport and Communications.</b>			
1. Railways* .. ..	548,673	73,492	622,165
2. Roads† .. ..	296,513	38,154	334,667
3. Water‡ .. ..	186,524	25,796	212,320
4. Docks, Lighthouses, Canals, &c. . .	143,856	14,857	158,713
5. Aerodromes and Aviation Service	510	16	526
6. Storage .. ..	12,819	2,169	14,988
7. Other Transport and Communication	14,671	1,080	15,751
<b>Total, Group XVI .. ..</b>	<b>1,203,566</b>	<b>155,564</b>	<b>1,359,130</b>

\* Excluding those employed in Railway Companies' Works, Docks, Shipping Services, Hotels and Catering Departments.

† Excluding those employed in Omnibus and Tramcar Repair Depots and in Tramway Generating Stations.

‡ Excluding those employed in Shipping and Railway Companies' Repair Yards and Engineering Shops.

TABLE 4—continued.

Industry.	Total engaged in each Industry, June, 1921.		
	England and Wales.	Scotland.	Total, Great Britain.
XVII.— <i>Commerce and Finance</i> ..	2,275,148	279,449	2,554,597
XVIII.— <i>Public Administration and De- fence.</i>			
1. Defence .. .. .	294,241	22,601	316,842
2. Central Civil Government (British and Imperial) §	352,700	36,708	389,408
3. Local Government    .. ..	688,938	83,882	772,820
Total, Group XVIII .. ..	1,335,879	143,191	1,479,070
XIX.— <i>Professions</i> .. .. .	514,776	65,792	580,568
XX.— <i>Entertainments and Sport</i> ..	122,004	10,689	132,693
XXI.— <i>Personal Service (including Hotels and Catering, but excluding Government and Local Authority)</i>	2,046,825	199,648	2,246,473
XXII.— <i>Other Industries or Industry not stated.</i> ¶	388,166	30,421	418,587
Grand Total .. .. .	17,178,050	2,179,269	19,357,319

§ Excluding those employed in Government Factories and Shipbuilding Yards.

|| Excluding those employed in Tramways, Gas and Waterworks and similar undertakings.

¶ Including 29,687 occupied persons whose industry could not be ascertained.

TABLE 5.

Population of Great Britain—Numbers aged 10 years and over, and proportions, engaged in the principal industry groups, 1881-1921; and intercensal percentage change in each group.

*Note* :—This table has been constructed to indicate in a very general manner the fluctuations of the numbers engaged in each industry shown. In using the table the figures for the years 1881-1901 must be compared with those in the *first* column for the year 1911, and those in the *second* column of the year 1911 must be used for comparison with 1921. Owing to radical changes which have been made in the method of classification only very rough comparisons can be made. The figures for 1881-1911 (*first* column) exclude maintenance staff, clerks, carmen and certain other occupations common to all industries. The figures for 1911 (*second* column) and 1921 include all persons employed in the industry. The numbers are given to the nearest thousand. The proportions engaged and the intercensal increases and decreases have been calculated on the actual numbers.

INDUSTRY.	Numbers engaged in each Industry.						Proportion engaged in each Industry per 10,000 Occupied.						Intercensal Increase or Decrease (-) per cent.			
	1881.	1891.	1901.	1911 (a)	1911 (b)	1921.	1881.	1891.	1901.	1911 (a)	1911 (b)	1921.	1881-1891-	1891-1901-	1901-1911-	1911-1921.
<b>MALES AND FEMALES TOGETHER.</b>																
Total aged 10 years and over.	22,081,000	25,100,000	26,770,000	32,234,000	32,234,000	34,679,000	—	—	—	—	—	—	14	15	12	9
Total occupied .. ..	12,739,000	14,500,000	16,312,000	18,354,000	18,354,000	19,357,000	10,000	10,000	10,000	10,000	10,000	10,000	14	12	13	5
Fishing .. .. .	61,000	84,000	81,000	84,000	70,000	65,000	48	37	32	29	38	34	- 11	- 5	4	- 7
Agriculture .. ..	1,593,000	1,498,000	1,403,000	1,501,000	1,429,000	1,307,000	1,250	1,033	860	818	779	675	- 6	- 6	7	- 9
Coal and Shale Mining ..	437,000	599,000	752,000	1,021,000	1,128,000	1,305,000	343	413	461	556	615	674	37	26	36	16
Manufacture of Bricks, Cement, Pottery and Glass.	130,000	142,000	177,000	174,000	201,000	214,000	102	98	109	95	110	110	9	25	- 2	6
Manufacture of Chemicals, Explosives, Paints, Oils, Rubber, &c.	52,000	69,000	101,000	149,000	185,000	269,000	41	48	62	81	100	139	33	46	47	47
Manufacture of Metals, Machines, Implements and Conveyances.	927,000	1,065,000	1,447,000	1,765,000	1,779,000	2,461,000	728	755	887	962	969	1,287	18	32	22	40
Manufacture of Textiles ..	1,191,000	1,253,000	1,169,000	1,294,000	1,359,000	1,293,000	935	864	717	705	740	668	5	- 7	11	- 5
Cotton .. .. .	820,000	862,000	844,000	820,000	846,000	821,000	498	388	333	338	352	321	8	- 3	14	- 4
Wool and Worsted .. ..	252,000	275,000	235,000	248,000	261,000	260,000	198	190	144	135	142	134	9	- 15	6	- 1
Silk .. .. .	64,000	83,000	37,000	31,000	33,000	34,000	50	36	23	17	18	18	- 17	- 29	- 17	3
Flax, Hemp, Jute, Rope, Canvas and Canvas Goods.	85,000	93,000	99,000	102,000	105,000	88,000	67	64	61	55	57	46	8	7	3	- 16
Dyeing, Bleaching, Printing, Finishing.	66,000	66,000	79,000	105,000	111,000	117,000	52	46	49	57	60	60	0	19	32	8

Males		POPULATION.																		
Total, aged 10 years and over.		10,627,000	12,038,000	13,790,000	15,445,000	15,445,000	16,496,000	— — — —				— —		13	15	12	7			
Total occupied .. ..		8,851,000	10,010,000	11,548,000	12,830,000	12,830,000	13,656,000	10,000	10,000	10,000	10,000	10,000	10,000	13	15	12	6			
Fishing .. .. .	58,000	53,000	51,000	53,000	63,000	63,000	63,000	68	53	44	41	49	46	—	9	—	4	—	0	
Agriculture .. ..	1,477,000	1,418,000	1,536,000	1,436,000	1,301,000	1,189,000	1,658	1,417	1,157	1,110	1,007	877	1,007	—	4	—	6	7	—	8
Coal and Shale Mining ..	434,000	585,000	748,000	1,015,000	1,122,000	1,284,000	480	694	646	785	608	847	608	37	28	36	15			
Manufacture of Bricks, Cement, Pottery and Glass.	108,000	113,000	145,000	137,000	162,000	161,000	120	113	125	108	125	118	125	7	28	—	6	—	1	
Manufacture of Chemicals, Explosives, Paints, Oils, Rubber, &c.	44,000	55,000	75,000	112,000	145,000	195,000	50	55	65	86	112	142	112	24	36	49	34			
Manufacture of Metals, Machines, Implements, &c.	899,000	1,049,000	1,384,000	1,670,000	1,670,000	2,251,000	1,004	1,048	1,199	1,291	1,291	1,948	1,291	18	82	21	85			
Manufacture of Textiles..	477,000	508,000	453,000	525,000	585,000	540,000	539	508	393	408	452	395	452	7	—	11	16	—	8	
Cotton .. .. .	192,000	216,000	199,000	238,000	257,000	234,000	217	216	173	183	199	171	199	13	—	8	19	—	9	
Wool and Worsted ..	111,000	121,000	87,000	108,000	118,000	115,000	128	121	84	82	91	84	91	9	—	20	9	—	2	
Silk .. .. .	20,000	18,000	11,000	9,000	11,000	14,000	23	18	9	7	9	10	9	—	13	—	38	—	14	28
Flax, Hemp, Jute, Rope, Canvas and Canvas Goods.	34,000	34,000	32,000	35,000	40,000	33,000	38	34	28	27	31	24	31	0	—	4	9	—	19	
Dyeing, Bleaching, Printing, Finishing.	51,000	51,000	63,000	82,000	91,000	89,000	57	51	55	64	70	65	70	1	24	30	—	2		
FEMALES.																				
Total, aged 10 years and over.		11,454,000	13,061,000	14,980,000	16,789,000	16,789,000	18,483,000	— — — —				— —		14	18	12	10			
Total occupied .. ..		3,887,000	4,489,000	4,763,000	5,424,000	5,424,000	5,701,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Fishing .. .. .	3,900	1,000	*	*	7,000	2,000	7	3	1	1	19	3	19	—	58	—	74	34	—	72
Agriculture .. ..	118,000	89,000	67,000	68,000	128,000	109,000	298	179	141	121	236	192	236	35	—	16	—	—	—	15
Coal and Shale Mining ..	4,000	4,000	4,000	5,000	6,000	11,000	9	9	8	10	11	19	11	10	0	0	36	80		
Manufacture of Bricks, Cement, Pottery and Glass.	24,000	29,000	33,000	37,000	39,000	53,000	62	65	68	69	72	93	72	21	12	14	34			
Manufacture of Chemicals, Explosives, Paints, Oils, Rubber, &c.	8,000	14,000	26,000	38,000	38,000	75,000	20	32	55	70	70	131	70	86	86	43	97			
Manufacture of Metals, Machines, Implements, and Conveyances.	38,000	45,000	63,900	95,000	110,000	240,000	97	101	132	175	202	422	202	20	39	51	119			
Manufacture of Textiles..	714,000	744,000	716,000	798,000	774,000	753,000	1,637	1,657	1,503	1,418	1,427	1,321	1,427	4	—	4	7	—	3	
Cotton .. .. .	328,000	346,000	345,000	384,000	388,000	386,000	844	771	723	707	716	575	716	6	—	0	11	—	1	
Wool and Worsted ..	141,000	154,000	138,000	142,000	143,000	145,000	383	342	289	292	264	253	264	9	—	10	3	—	1	
Silk .. .. .	43,000	35,000	26,000	21,000	22,000	20,000	111	78	55	39	40	35	40	—	19	—	25	—	19	7
Flax, Hemp, Jute, Rope, Canvas and Canvas Goods.	52,000	59,000	67,000	67,000	84,000	55,000	133	131	140	123	119	97	119	14	13	—	0	—	14	
Dyeing, Bleaching, Printing, Finishing.	16,000	15,000	16,000	23,000	20,000	29,000	40	34	33	42	38	50	38	—	2	4	43	40		

\* The number engaged in this industry was under 500.

POPULATION.

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TABLE 6.

Population of England and Wales.—Numbers aged 10 years and over, and proportions, engaged in the various industries, 1881–1921; and intercensal percentage change in each industry.

*Notes* :—This table has been constructed to indicate in a very general manner the fluctuations of the numbers engaged in each industry. In using the table the figures for the years 1881–1901 must be compared with those in the *first* column for the year 1911, and those in the *second* column of the year 1911 must be used for comparison with 1921. Owing to radical changes which have been made in the method of classification only very rough comparisons can be made. The figures for 1881–1911 (*first* column) exclude maintenance staff, clerks, carmen and certain other occupations common to all industries. The figures for 1911 (*second* column) and 1921 include all persons engaged in the industry. The numbers are given to the nearest thousand. The proportions engaged and the intercensal increases and decreases have been calculated on the actual numbers.

## MALES AND FEMALES TOGETHER.

Industry.	Numbers engaged in each Industry.						Proportion engaged in each Industry per 10,000 Occupied.						Intercensal Increase or Decrease (—) per cent.			
	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881–1891–1891.	1901–1901.	1911–1911.	1921–1921.
Total aged 10 years and over.	19,306,000	22,054,000	25,324,000	28,519,000	28,519,000	31,046,000	—	—	—	—	—	—	14	15	13	9
Total occupied .. ..	11,162,000	12,752,000	14,328,000	16,284,000	16,284,000	17,178,000	10,000	10,000	10,000	10,000	10,000	10,000	14	12	14	5
Fishing .. .. .	30,000	25,000	24,000	25,000	29,000	40,000	27	20	17	15	18	23	— 15	— 5	6	37
Agriculture .. . .	1,353,000	1,285,000	1,198,000	1,297,000	1,230,000	1,124,000	1,212	1,008	806	797	755	654	— 5	— 7	8	— 9
Mining and Quarrying and Treatment of Non-Metalliferous Mine and Quarry Products, including :—	509,000	630,000	791,000	1,028,000	1,122,000	1,288,000	456	494	552	631	692	749	24	26	30	14
Coal Mines .. . .	382,000	517,000	644,000	877,000	971,000	1,133,000	342	406	449	539	596	659	35	24	36	17
Iron Ore Mines and Quarries .. . . .	26,000	18,000	17,000	22,000	25,000	20,000	23	14	12	14	15	12	— 30	— 7	31	— 18
Stone Quarrying, Cutting and Dressing.	36,000	37,000	56,000	47,000	49,000	36,000	32	29	39	29	30	21	3	51	— 16	— 27
State Quarrying, Cutting and Dressing.	16,000	14,000	16,000	13,000	15,000	11,000	14	11	11	8	9	6	— 14	17	— 17	— 28
Coke Ovens and By-Product Plants.	?	?	?	?	9,000	12,000	?	?	?	?	6	7	?	?	?	31
Manufacture of Lime, Cement, Concrete, &c.	7,000	8,000	13,000	12,000	19,000	28,000	6	6	9	8	12	16	17	55	— 3	45
Manufacture of Bricks, Pottery and Glass, including :—	118,000	128,000	156,000	153,000	171,000	177,000	106	99	109	94	105	103	7	24	— 2	3
Bricks and Pottery ..	97,000	100,000	128,000	122,000	136,000	129,000	87	79	88	75	84	75	4	26	— 4	— 5



Glass .. .. .	22,000	25,000	30,000	31,000	35,000	45,000	19	21	21	19	21	26	21	18	8	26
Manufacture of Chemicals, Paints, Oils, &c., in- cluding—	36,000	47,000	67,000	98,000	133,000	198,000	32	37	47	59	81	115	81	43	43	49
Chemicals (not Dyes) ..	17,000	22,000	29,000	44,000	61,000	77,000	16	18	20	27	38	45	29	29	53	25
Soap, Candles, Glycerine ..	5,000	7,000	9,000	14,000	20,000	32,000	5	5	7	8	12	19	18	43	45	59
Manufacture of Metals (not precious Metals), Ma- chines, Implements, Conveyances, Includ- ing—	796,000	941,000	1,232,000	1,509,000	1,516,000	2,128,000	713	788	860	925	931	1,237	18	31	22	40
Iron and Steel (including Tubes),	?	?	?	?	166,000	239,000	?	?	?	?	102	139	?	?	?	44
Brass Founding and Finishing.	?	?	?	?	41,000	48,000	?	?	?	?	25	28	?	?	?	19
Forging (a) .. .. .	?	?	?	?	72,000	44,000	?	?	?	?	45	25	?	?	?	— 40
Tinplate and Galvanised Sheet.	?	?	?	?	31,000	38,000	?	?	?	?	19	22	?	?	?	23
Wire, Wire Netting and Wire Rops.	9,000	11,000	15,000	22,000	24,000	23,000	8	9	11	14	18	14	21	38	45	— 2
Ironfoundry, Engineer- ing, Boiler Making and Shipbuilding.	?	?	?	?	637,000	887,000	?	?	?	?	391	516	?	?	?	39
Electrical Apparatus and Installations.	3,000	13,000	50,000	84,000	80,000	168,000	2	10	35	58	49	97	400	293	90	108
Vehicles .. .. .	63,000	81,000	118,000	182,000	197,000	357,000	57	64	83	112	121	208	29	45	54	81
Cutlery and Tools (includ- ing Needles and Pins).	44,000	48,000	50,000	58,000	52,000	55,000	39	38	35	36	32	32	10	8	17	5
Manufacture of Precious Metals, Jewellery, Plate.	?	?	71,000	64,000	69,000	70,000	?	?	50	39	43	41	?	?	— 11	2
Manufacture of Textiles, including—	997,000	1,058,000	995,000	1,123,000	1,174,000	1,142,000	894	830	694	689	721	685	6	0	13	— 8
Cotton .. .. .	488,000	546,000	529,000	605,000	628,000	696,000	437	428	369	372	386	347	12	— 3	14	— 5
Wool and Worsted ..	222,000	242,000	210,000	223,000	233,000	237,000	199	190	148	137	143	136	9	— 13	6	— 2
Silk .. .. .	61,000	49,000	35,000	30,000	32,000	33,000	54	38	24	18	20	19	— 19	— 29	— 15	5
Flax, Hemp, Rope, Twine, Canvas and Canvas Goods.	35,000	30,000	29,000	31,000	30,000	27,000	31	24	30	19	18	15	— 13	— 4	7	— 11
Hosiery and other Knitted Goods.	40,000	49,000	48,000	58,000	59,000	80,000	36	38	34	35	36	47	22	— 1	17	37
Lace .. .. .	44,000	35,000	36,000	41,000	44,000	24,000	40	27	25	25	27	14	— 21	— 5	13	— 46
Carpets and Rugs ..	14,000	17,000	15,000	15,000	18,000	17,000	13	13	10	9	11	10	16	— 12	3	— 5
Bleaching, Printing, Dyeing, Finishing, &c.	45,000	47,000	60,000	84,000	90,000	102,000	40	37	42	52	55	59	4	28	40	15
Preparation of Skins and Leather, Manufacture of Leather Goods, including—	64,000	74,000	79,000	84,000	87,000	80,000	57	58	55	51	58	47	16	8	8	— 7
Fur, Skins, Leather ..	?	?	?	?	44,000	46,000	?	?	?	?	27	27	?	?	?	— 6
Manufacture of Leather Goods.	?	?	?	?	43,000	34,000	?	?	?	?	26	20	?	?	?	— 21

(a) Comparison of these groups for 1911 and 1921 is affected by changes in the method of classification.

POPULATION.

419

TABLE 6—continued. (See Note on p. 418).  
 MALES AND FEMALES TOGETHER—continued.

Industry.	Numbers engaged in each Industry.						Proportion engaged in each Industry per 10,000 Occupied.						Intercensal Increase or Decrease (—) per cent.			
	1881.	1891.	1901	1911. (a)	1911. (b)	1921.	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881-1891-	1901-1911-	1911-1921.	
Manufacture of Textile Goods and Clothing, including—(a)	?	?	1,025,000	1,044,000	1,050,000	815,000	?	?	715	641	645	474	?	?	2	- 22
Tailoring .. ..	?	?	237,000	250,000	262,000	288,000	?	?	166	154	161	168	?	?	6	10
Dressmaking and Millinery (a).	?	?	391,000	410,000	401,000	191,000	?	?	273	232	246	111	?	?	5	- 52
Hats and Caps ..	?	?	39,000	40,000	43,000	35,000	?	?	27	25	26	20	?	?	4	- 19
Boots, Shoes, Clops ..	?	?	229,000	214,000	218,000	196,000	?	?	180	131	134	115	?	?	7	- 9
Manufacture of Food ..	?	?	217,000	295,000	337,000	373,000	?	?	151	181	207	229	?	?	36	12
Manufacture of Drinks ..	?	?	?	?	106,000	117,000	?	?	?	?	67	68	?	?	?	8
Manufacture of Tobacco, Cigars, Cigarettes, Snuff.	?	?	27,000	27,000	31,000	46,000	?	?	19	17	19	27	?	?	- 1	50
Woodworking: Manufacture of Basket Ware, Furniture, &c.	?	?	230,000	245,000	242,000	228,000	?	?	160	151	149	133	?	?	7	- 6
Paper Making: Manufacture of Stationery, &c.; Printing and Bookbinding, including—	?	?	220,000	273,000	285,000	340,000	?	?	154	168	175	198	?	?	24	10
Paper Manufacture ..	?	?	24,000	25,000	31,000	43,000	?	?	17	15	19	25	?	?	3	29
Printing, Bookbinding, &c.	?	?	194,000	245,000	250,000	290,000	?	?	135	150	153	168	?	?	26	16
Building, Decorating and Contracting.	?	?	1,052,000	961,000	861,000	758,000	?	?	734	590	529	442	?	?	- 9	- 12
Other Manufacturing Industries, including—	?	?	?	?	129,000	187,000	?	?	?	?	79	109	?	?	?	45
Rubber and Rubber Goods.	?	?	?	?	24,000	46,000	?	?	?	?	14	27	?	?	?	96
Scientific and Surgical Instruments.	?	?	10,000	18,000	20,000	29,000	?	?	7	11	13	17	?	?	?	44
Musical Instruments ..	?	?	14,000	16,000	19,000	22,000	?	?	10	10	12	13	?	?	?	15
Gas, Water, Electricity ..	21,000	35,000	56,000	78,000	109,000	163,000	?	19	27	39	48	67	64	61	40	50
Transport and Communication, including—(a)	?	?	?	?	1,127,000	1,204,000	?	?	?	?	692	701	?	?	?	7
Railways .. ..	?	?	?	?	455,000	549,000	?	?	?	?	279	319	?	?	?	21
Road (a) .. ..	?	?	?	?	291,000	287,000	?	?	?	?	179	173	?	?	?	2
Water .. ..	?	?	?	?	284,000	330,000	?	?	?	?	174	192	?	?	?	16
National Government and Defence.	?	?	?	?	414,000	647,000	?	?	?	?	254	377	?	?	?	56

Personal service (including Hotels, &c.), including:-	?	?	?	?	1,527,000	1,232,000	?	?	?	?	937	717	?	?	?	?	- 19
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MALES.

Total aged 10 years and over.	9,314,000	10,892,000	12,134,000	13,682,000	13,682,000	14,627,000	—	—	—	—	—	—	14	15	13	7	
Total occupied .. ..	7,759,000	8,906,000	10,157,000	11,454,000	11,454,000	12,113,000	10,000	10,000	10,000	10,000	10,000	10,000	14	16	13	6	
Fishing .. .. .	29,000	25,000	24,000	25,000	29,000	39,000	38	28	23	22	25	32	—	15	5	6	33
Agriculture .. ..	1,288,000	1,234,000	1,159,000	1,259,000	1,135,000	1,038,000	1,660	1,401	1,141	1,099	991	857	—	4	6	9	6
Mining and Quarrying and Treatment of Non-Metalliciferous Mine and Quarry Products, including:-	503,000	625,000	787,000	1,024,000	1,122,000	1,275,000	648	710	774	894	980	1,052	—	24	26	30	14
Coal Mines .. ..	379,000	514,000	641,000	874,000	938,000	1,126,000	488	533	631	783	845	930	—	36	25	36	16
Iron Ore Mines and Quarries.	28,000	18,000	17,000	22,000	25,000	20,000	33	21	17	19	22	17	—	30	6	31	19
Stone Quarrying, Cutting and Dressing.	36,000	37,000	56,000	47,000	46,000	36,000	46	43	55	41	48	29	—	3	51	16	28
Slate Quarrying, Cutting and Dressing.	16,000	14,000	16,000	13,000	14,000	11,000	21	16	16	12	13	9	—	14	17	18	26
Coke Ovens and By Product Plants.	?	?	?	?	9,000	12,000	?	?	?	?	8	10	?	?	?	?	30
Manufacture of Linn, Cement, Concrete, &c.	7,000	8,000	13,000	12,000	19,000	27,000	9	9	12	11	16	22	—	18	54	3	41
Manufacture of Bricks, Pottery and Glass, including:-	98,000	100,000	127,000	118,000	135,000	128,000	124	113	125	108	118	105	—	4	27	7	6
Bricks and Pottery ..	76,000	76,000	99,000	90,000	103,000	88,000	98	86	97	76	90	73	—	0	80	9	15
Glass .. .. .	20,000	24,000	28,000	28,000	32,000	38,000	26	27	27	25	28	31	—	21	15	2	19
Manufacture of Chemicals, Paints, Oils, &c., including:-	31,000	39,000	52,000	75,000	107,000	148,000	40	44	51	66	94	122	—	25	54	44	37
Chemicals (not Dyes) ..	16,000	21,000	25,000	37,000	53,000	60,000	21	23	25	32	46	50	—	27	31	48	15
Soap, Candles, Glycerine	5,000	5,000	7,000	10,000	15,000	21,000	7	6	7	9	13	17	—	7	24	45	37
Manufacture of Metals (not precious Metals), Machines, Implements, Conveyances, including:-	760,000	868,000	1,176,000	1,421,000	1,415,000	1,904,000	579	1,020	1,158	1,241	1,235	1,572	—	16	31	21	35
Iron and Steel (including Tubes).	?	?	?	?	165,000	232,000	?	?	?	?	144	192	?	?	?	?	41
Brass Founding and Finishing.	?	?	?	?	34,000	35,000	?	?	?	?	30	29	?	?	?	?	3

(a) Comparison of these groups for 1911 and 1921 is affected by changes in the method of classification.

POPULATION.

TABLE 8—continued. (See Note on p. 418).

## MALES—continued.

Industry.	Numbers engaged in each Industry.					Proportion engaged in each Industry per 10,000 Occupied.					Interannual Increase or Decrease (—) per cent.			
	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881-1891-1901-1911-1921.	
<b>Manufacture of Metals (not precious metals), Machines, Implements, Conveyances, including:—</b>														
Fording (a) . . . . .	?	?	?	?	70,000	42,000	?	?	?	?	81	34	? ? ? - 41	
Tinplate and Galvanised Sheet.	?	?	?	?	28,000	34,000	?	?	?	?	24	28	? ? ? - 22	
Wire, Wire Netting and Wire Ropes.	9,000	10,000	14,000	20,000	21,000	21,000	11	12	13	17	18	17	17 34 44 - 1	
Ironfounding, Engineering, Boiler Making and Shipbuilding.	?	?	?	?	629,000	845,000	?	?	?	?	550	697	? ? ? 34	
Electrical Apparatus and Installations.	2,000	12,000	47,000	85,000	69,000	127,000	3	14	46	74	60	105	366 288 60 86	
Vehicles . . . . .	63,000	80,000	115,000	174,000	187,000	328,000	81	91	113	152	163	269	28 43 51 74	
Cutlery and Tools (including Needles and Pins).	38,000	42,000	42,000	50,000	45,000	40,000	49	47	42	43	37	33	9 2 17 - 5	
<b>Manufacture of Precious Metals, Jewellery, Plate.</b>	?	?	58,000	48,000	51,000	47,000	?	?	57	42	45	39	? ? - 17 - 8	
<b>Manufacture of Textiles, including:—</b>														
Cotton . . . . .	414,000	446,000	402,000	469,000	517,000	489,000	534	506	396	409	452	403	8 - 10 17 - 6	
Wool and Worsted . . . . .	185,000	213,000	197,000	233,000	252,000	228,000	239	242	194	204	220	188	15 - 8 19 - 10	
Silk . . . . .	98,000	107,000	88,000	96,000	106,000	106,000	126	122	86	83	92	88	10 - 18 9 0	
Flax, Hemp, Rope Twine, Canvas and Canvas Goods.	19,000	16,000	10,000	9,000	11,000	14,000	24	18	10	8	9	11	- 13 - 36 - 12 27	
Hosiery and other Knitted Goods.	18,000	16,000	13,000	14,000	15,000	13,000	24	18	13	12	13	10	- 13 - 15 1 - 14	
Lace . . . . .	19,000	18,000	14,000	15,000	17,000	20,000	24	21	14	13	14	17	- 4 - 24 7 24	
Carpets and Rugs . . . . .	11,000	13,000	13,000	15,000	17,000	10,000	15	15	12	13	15	9	15 - 3 20 - 39	
Dyeing, Finishing, &c.	9,000	9,000	7,000	7,000	9,000	8,000	12	11	7	6	8	6	2 - 24 - 2 - 15	
Preparation of Skins and Leather, Manufacture of Leather Goods, including:—	39,000	40,000	51,000	70,000	78,000	80,000	50	45	51	61	68	66	2 30 35 2	
Leather, Manufacture of Leather Goods, including:—	56,000	63,000	65,000	66,000	68,000	58,000	72	72	64	58	59	48	12 3 1 - 15	



TABLE 6—continued. (See Note on p. 418).

FEMALES.

Industry.	Numbers engaged in each Industry.						Proportion engaged in each Industry per 10,000 Occupied.						Intercensal Increase or Decrease (—) per cent.				
	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881.	1891.	1901.	1911. (a)	1911. (b)	1921.	1881-1891.	1891-1901.	1901-1911.	1911-1921.	
Total aged 10 years and over.	9,983,000	11,482,000	13,190,000	14,857,000	14,857,000	16,419,000	—	—	—	—	—	—	15	15	13	11	
Total occupied .. ..	3,403,000	3,946,000	4,172,000	4,831,000	4,831,000	5,065,000	10,000	10,000	10,000	10,000	10,000	10,000	16	6	16	8	
Fishing .. .. .	*	*	*	*	*	2,000	1	1	0	0	1	3					
Agriculture .. ..	84,000	81,000	39,000	38,000	85,000	85,000	189	129	93	79	196	169	12	50	40	289	
Mining and Quarrying and Treatment of Non-Metaliferous Mine and Quarry Products, including:—	6,000	5,000	4,000	4,000	5,000	11,000	19	12	10	9	10	22	—	21	24	3	10
Coal Mines .. ..	3,000	3,000	3,000	3,000	3,000	6,000	9	8	6	6	7	13	5	18	7	101	
Iron Ore Mines and Quarries.	*	*	*	*	*	*	1	0	0	0	0	0	68	93	140	431	
Stone Quarrying, Cutting and Dressing.	—	—	*	*	*	*	—	—	0	0	0	1	—	—	322	316	
Slate Quarrying, Cutting and Dressing.	*	—	*	*	*	*	0	—	0	0	0	0	—	—	2,600	0	
Coke Ovens and By-Products Plants.	?	?	?	?	*	*	?	?	?	?	0	0	?	?	?	151	
Manufacture of Lime, Cement, Concrete, &c.	*	—	*	*	*	1,000	0	—	0	0	0	2	—	—	4	605	
Manufacture of Bricks, Pottery and Glass, including:—	22,000	27,000	30,000	35,000	38,000	49,000	66	67	72	72	74	98	19	13	17	37	
Bricks and Pottery ..	21,000	24,000	28,000	32,000	33,000	41,000	61	62	66	67	68	82	19	13	17	27	
Glass .. .. .	2,000	2,000	2,000	3,000	3,000	7,000	5	5	6	6	6	13	24	12	16	131	
Manufacture of Chemicals, Paints, Oils, &c., including:—	5,000	8,000	15,000	21,000	25,000	50,000	14	20	36	43	52	89	67	93	98	98	
Chemicals (not Dyes) ..	1,000	2,000	4,000	7,000	9,000	16,000	3	5	10	15	18	32	54	117	80	87	
Soap, Candles, Glycerine	1,000	1,000	3,000	4,000	5,000	11,000	1	3	6	8	11	23	133	126	45	122	
Manufacture of Metals (not Precious Metals), Machines, Implements, Conveyances, including:—	36,000	43,000	56,000	85,000	101,000	221,000	107	108	134	176	209	437	17	31	52	119	

Tubes)	?	?	?	?	6,000	18,000	?	?	?	?	13	26	?	?	?	101
Brass Founding and Finishing.	?	?	?	?	2,000	2,000	?	?	?	?	5	4	?	?	?	19
Forging	?	?	?	?	3,000	4,000	?	?	?	?	6	7	?	?	?	29
Tinplate and Galvanised Sheet.																
Wire, Wire Netting and Wire Rope.	1,000	1,000	2,000	3,000	3,000	3,000	2	2	4	6	6	5	88	84	57	7
Ironfounding, Engineering, Boiler Making and Shipbuilding.	?	?	?	?	8,000	42,000	?	?	?	?	16	83	?	?	?	486
Electrical Apparatus and Installations.	*	*	2,000	9,000	11,000	39,000	0	1	6	19	23	76	1,704	431	272	247
Vehicles	*	1,000	3,000	8,000	11,000	31,000	1	3	8	16	22	62	169	182	130	192
Cutlery and Tools (including Needles and Pins).	6,000	7,000	7,000	9,000	10,000	14,000	17	17	18	18	20	29	16	13	17	62
Manufacture of Precious Metals, Jewellery, Plats.	?	?	14,000	16,000	18,000	23,000	?	?	33	33	38	46	?	?	16	27
Manufacture of Textiles, including:—	583,000	612,000	593,000	654,000	656,000	654,000	1,714	1,552	1,421	1,354	1,359	1,291	6	3	10	0
Cotton .. .. .	302,000	333,000	332,000	372,000	376,000	368,000	889	843	796	770	776	726	10	0	12	2
Wool and Worsted ..	125,000	135,000	122,000	127,000	128,000	131,000	367	342	283	263	264	259	8	10	4	3
Silk .. .. .	42,000	33,000	24,000	21,000	21,000	20,000	123	83	59	43	43	39	22	25	16	6
Flax, Hemp, Rope, Twine, Canvas and Canvas Goods.	16,000	14,000	15,000	17,000	15,000	14,000	48	36	37	35	31	28	13	8	11	7
Hosiery and other Knitted Goods.	22,000	31,000	34,000	41,000	42,000	60,000	63	78	89	86	87	118	44	12	20	43
Lace .. .. .	33,000	22,000	24,000	28,000	27,000	18,000	96	55	57	53	56	26	34	10	8	50
Carpets and Rugs ..	5,000	7,000	8,000	8,000	9,000	9,000	15	19	18	17	18	18	42	3	9	5
Bleaching, Printing, Dyeing, Finishing, &c.	6,000	7,000	9,000	14,000	12,000	22,000	17	18	21	30	24	43	20	20	67	87
Preparation of Skins and Leather; Manufacture of Leather Goods.	8,000	11,000	14,000	18,000	18,000	22,000	22	27	35	37	38	44	40	37	24	21
Furs, Skins, Leather ..	?	?	?	?	7,000	10,000	?	?	?	?	15	21	?	?	?	48
Manufacture of Leather Goods.	?	?	?	?	11,000	12,000	?	?	?	?	24	24	?	?	?	5
Manufacture of Textile Goods and Clothing, including:—(a)	?	?	687,000	711,000	703,000	803,000	?	?	1,647	1,472	1,456	992	?	?	3	28
Tailoring .. .. .	?	?	118,000	127,000	131,000	162,000	?	?	282	263	271	319	?	?	8	24
Dressmaking and Millinery (a).	?	?	389,000	406,000	395,000	184,000	?	?	633	640	618	364	?	?	4	53
Hats and Caps ..	?	?	23,000	22,000	23,000	20,000	?	?	55	46	46	36	?	?	2	16

\* The number engaged was under 500.

(a) Comparison of these groups for 1911 and 1921 is affected by changes in the method of classification.

POPULATION.

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TABLE 6—continued. (See Note on p. 418).

## FEMALES—continued.

Industry.	Numbers engaged in each Industry.						Proportion engaged in each Industry per 10,000 Occupied.						Intercensal Increase or Decrease (—) per cent.				
	1881.	1891.	1901.	1911.		1921.	1881.	1891.	1901.	1911.		1911.	1921.	1881-1891.	1891-1901.	1901-1911.	1911-1921.
				(a)	(b)					(a)	(b)						
Boots, Shoes, Clogs ..	?	?	45,000	45,000	46,000	52,000	?	?	108	92	95	103	?	?	- 1	14	
Manufacture of Food ..	?	?	73,000	118,000	114,000	147,000	?	?	174	244	235	291	?	?	62	30	
Manufacture of Drinks ..	?	?	?	?	6,000	22,000	?	?	?	?	13	43	?	?	?	256	
Manufacture of Tobacco, Cigars, Cigarettes, Snuff.	?	?	20,000	19,000	20,000	31,000	?	?	48	40	42	61	?	?	- 3	51	
Woodworking: Manufacture of Basket Ware, Furniture, &c.	?	?	21,000	24,000	23,000	24,000	?	?	51	49	48	48	?	?	12	5	
Paper Making: Manufacture of Stationery, &c., Printing and Book-binding, including:—	?	?	75,000	98,000	97,000	119,000	?	?	180	203	200	235	?	?	31	23	
Paper Manufacture ..	?	?	8,000	8,000	8,000	10,000	?	?	21	16	17	20	?	?	- 12	24	
Printing, Bookbinding, &c.	?	?	66,000	90,000	88,000	107,000	?	?	158	186	181	211	?	?	36	22	
Building, Decorating and Contracting.	?	?	2,000	5,000	3,000	9,000	?	?	6	10	6	18	?	?	99	201	
Other Manufacturing Industries, including:—	?	?	?	?	39,000	72,000	?	?	?	?	81	142	?	?	?	873	
Rubber and Rubber Goods.	?	?	?	?	6,000	17,000	?	?	?	?	13	33	?	?	?	182	
Scientific and Surgical Instruments.	?	?	2,000	3,000	4,000	9,000	?	?	4	7	8	17	?	?	85	122	
Musical Instruments ..	?	?	*	1,000	1,000	3,000	?	?	1	1	2	6	?	?	65	236	
Gas, Water, Electricity ..	?	*	*	*	5,000	5,000	?	?	0	0	1	9	- 50	675	42	861	
Transport and Communication, including:—	?	?	?	?	20,000	39,000	?	?	?	?	41	77	?	?	?	97	
Railways .. .. .	?	?	?	?	4,000	17,000	?	?	?	?	8	34	?	?	?	357	
Road .. .. .	?	?	?	?	3,000	10,000	?	?	?	?	7	19	?	?	?	194	
Water .. .. .	?	?	?	?	2,000	10,000	?	?	?	?	4	20	?	?	?	444	
National Government and Defence.	?	?	?	?	33,000	111,000	?	?	?	?	69	219	?	?	?	234	
Local Government ..	?	?	?	?	178,000	244,000	?	?	?	?	364	481	?	?	?	39	
Personal Services (including Hotels, &c.), including:—	?	?	?	?	1,859,000	1,507,000	?	?	?	?	3,848	2,976	?	?	?	- 19	
Private Personal Service	?	?	?	?	1,261,000	1,005,000	?	?	?	?	2,610	1,983	?	?	?	- 20	

\* The number engaged was under 500.

(a) Comparison of these groups for 1911 and 1921 is affected by changes in the method of classification.



TABLE 7.

## MARITAL CONDITION OF PERSONS FOLLOWING DEFINITE OCCUPATIONS.

Note.—This table relates, in regard to the year 1901, to persons aged 14 and over; and in regard to the years 1911 and 1921 to persons aged 16 and over. M = Male and F = Female. The percentages shown relate to the figures given in the section headed "Total."

England and Wales.

Year.	Total.		Unmarried.				Married.				Widowed or Divorced.			
	M.	F.	M.		F.		M.		F.		M.		F.	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1901 ..	10,018,846	4,101,489	*	*	3,183,980	77·6	*	*	917,509†	22·4†	*	*	*	*
1911 ..	10,855,395	54,454,956	4,654,661†	42·9†	3,363,754	75·5	6,200,734	57·1	680,191	15·3	*	*	411,011	9·2
1921 ..	11,595,532	4,713,217	4,033,639	34·8	3,594,202	76·3	7,092,532	61·2	693,034	14·7	469,361	4·0	425,981	9·0

† Including widowers or widowed.

Great Britain.

Year.	Total.		Unmarried.				Married.				Widowed or Divorced.			
	M.	F.	M.		F.		M.		F.		M.		F.	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1911 ..	12,266,619	5,003,730	*	*	3,837,000	76·7	*	*	711,656	14·2	*	*	455,074	9·1
1921 ..	13,079,578	5,306,515	4,647,468	35·5	4,102,998	77·3	7,893,774	60·4	733,313	13·8	538,336	4·1	470,204	8·9

\* Figures not available.

POPULATION.

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TABLE

POPULATION OF

Families (i.e., living Children and Step-children under 16) of

Occupation.	MARRIED MEN.							
	Total No. of Married Men.	Average No. of Children per Married Man.	No. of Families of following number of living children (in-children) under 16 years of age.					
			Total.	Not stated.	0.	1.	2.	3.
Total .. .. .	7,475,051	1·27	7,475,051	1,030,661	2,196,439	1,716,418	1,136,228	667,683
Fishermen .. . . .	18,431	1·56	18,431	2,400	4,709	3,804	2,780	1,063
Agricultural Occupations	627,539	1·25	627,539	80,878	214,190	126,605	85,884	52,979
Mining and Quarrying Occupations.	613,181	1·82	613,181	65,100	111,018	143,781	109,819	76,309
Workers in the treatment of Non-Metalliferous Mine and Quarry Products (excluding Workers in Gas Works).	17,211	1·69	17,211	1,959	3,652	4,010	2,827	1,993
Makers of Bricks, Pottery and Glass.	50,509	1·54	50,509	6,341	11,672	11,911	8,343	5,333
Workers in Chemical Processes, Makers of Oils, Paints, &c.	40,522	1·51	40,522	4,710	9,939	9,423	6,924	4,322
Metal Workers (not Electro-plate or Precious Metals)	881,629	1·41	881,629	110,567	214,586	222,715	151,621	87,401
Workers in Precious Metals and Electro-plate.	18,114	1·23	18,114	2,393	5,078	4,941	2,945	1,567
Electrical Apparatus Makers and Fitters, and Electricians.	72,756	1·36	72,756	8,221	16,904	20,931	13,434	6,797
Makers of Watches, Clocks and Scientific Instruments.	13,761	1·04	13,761	1,832	4,747	3,344	2,013	993
Workers in Skins and Leather, and Makers of Leather and Leather Substitute Goods (not Boots or Shoes).	35,244	1·23	35,244	4,681	10,784	8,275	5,270	3,009
Textile Workers .. . . .	201,072	1·01	201,072	26,484	69,779	51,236	29,380	13,728
Makers of Textile Goods and Articles of Dress.	177,537	1·24	177,537	25,822	52,184	40,941	26,836	15,321
Makers of Foods, Drinks and Tobacco.	122,925	1·30	122,925	15,909	34,388	29,533	19,653	11,269
Workers in Wood and Furniture.	306,975	1·23	306,975	43,297	91,773	71,555	47,921	26,709
Makers of and Workers in Paper; Printers, Bookbinders, Photographers, &c.	101,102	1·13	101,102	13,594	30,896	25,872	15,942	7,977
Builders, Bricklayers, Stone and Slate Workers; Contractors.	350,733	1·44	350,733	51,508	92,728	73,238	52,927	35,079
Painters and Decorators (not Pottery).	140,950	1·37	140,950	20,068	37,837	31,935	21,871	13,534
Workers in other Materials	19,736	1·31	19,736	2,636	5,230	4,856	3,301	1,855
Workers in Mixed or Undefined Materials.	57,836	1·36	57,836	7,694	15,294	13,883	9,369	5,544
Persons employed in Gas, Water and Electricity Undertakings (not elsewhere enumerated).	37,538	1·52	37,538	4,802	9,364	8,320	6,060	3,862
Persons employed in Transport and Communication	823,402	1·42	823,402	102,169	208,495	200,376	137,217	81,637
Commercial, Finance and Insurance Occupations (excluding Clerks).	691,049	1·10	691,049	83,724	221,283	169,863	107,270	63,113

## ENGLAND AND WALES.

## Married Men and Widowers, by Occupational Groups, 1921.

		WIDOWERS.									
cluding step-		Total No. of Widowers.	Average No. of Children per Widower	No. of Families of following number of living children (including step-children) under 16 years of age.							5 and over.
4.	5 and over.			Total.	Not stated.	0.	1.	2.	3.	4.	
871,484	363,140	642,311	0.32	642,311	232,948	304,274	50,928	27,694	14,334	7,282	4,851
1,301	1,454	1,281	0.48	1,281	435	559	130	68	46	26	20
32,036	34,967	56,931	0.31	56,931	18,077	30,072	4,117	2,273	1,214	669	309
50,483	56,671	37,251	0.72	37,251	12,438	12,386	5,085	3,376	1,998	1,151	819
1,350	1,420	988	0.64	988	310	375	126	84	51	27	15
3,420	3,469	3,543	0.58	3,543	1,192	1,348	424	282	167	86	44
2,622	2,582	2,444	0.55	2,444	787	965	324	185	102	58	28
48,565	46,274	50,584	0.52	50,584	16,882	20,259	6,468	3,626	1,859	913	577
821	671	1,149	0.38	1,149	395	511	123	73	30	9	8
3,465	3,004	2,157	0.72	2,157	583	755	411	208	118	56	26
475	357	984	0.26	984	310	536	68	38	20	9	3
1,694	1,531	2,866	0.34	2,866	944	1,409	254	137	74	29	19
6,438	5,027	13,653	0.33	13,653	4,184	6,845	1,473	702	280	113	76
8,397	7,936	13,865	0.34	13,865	4,728	6,669	1,208	648	355	164	98
6,288	5,685	7,347	0.44	7,347	2,338	3,296	869	447	223	103	69
14,514	13,206	22,563	0.35	22,563	7,512	10,829	2,102	1,133	552	273	162
3,813	3,108	5,783	0.44	5,783	1,733	2,667	708	347	177	83	48
21,913	23,340	28,889	0.42	28,889	9,936	12,953	2,764	1,552	844	460	350
8,135	7,770	9,587	0.41	9,587	3,298	4,279	950	553	267	143	97
975	883	1,329	0.43	1,329	498	538	146	76	37	25	11
3,081	3,001	3,745	0.41	3,745	1,309	1,616	417	204	114	53	32
2,492	2,838	2,363	0.59	2,363	729	955	296	195	96	52	38
67,086	46,120	45,749	0.51	45,749	15,002	18,892	5,602	3,190	1,667	846	550
24,968	20,768	38,258	0.35	38,258	11,425	19,374	3,988	1,924	870	416	261

TABLE 8

Occupation.	MARRIED MEN.							
	Total No. of Married Men.	Average No. of Children per Married Man.	No. of Families of following number of living children (in-children) under 16 years of age.					
			Total.	Not stated.	0.	1.	2.	3.
Persons employed in Public Administration and Defence (excluding Professional Men and Typists).	224,519	1.15	224,519	30,010	59,847	64,818	38,408	17,938
Professional Workers (excluding Clerical Staff).	187,523	0.90	187,523	24,614	71,284	44,719	27,505	12,104
Persons employed in Entertainments and Sport.	39,629	1.07	39,629	7,519	11,399	9,419	5,728	2,897
Persons engaged in Personal Service (including Institutions, Clubs, Hots, &c.)	222,632	1.05	222,632	38,709	72,748	48,366	30,806	16,742
Clerks and Draughtsmen (not Civil Service or Local Authority); Typists	261,598	0.94	261,598	30,390	89,984	76,059	40,056	15,704
Warehousemen, Storekeepers and Packers.	131,454	1.17	131,454	17,893	39,700	33,102	20,051	10,382
Stationary Engine Drivers, Dynamo and Motor Attendants.	113,827	1.59	113,827	15,401	23,969	26,365	19,431	12,692
Other and Undefined Workers.	477,433	1.44	477,433	73,299	124,400	100,133	69,912	46,713
Retired or not Gainfully Occupied.	394,684	0.39	394,684	95,997	226,809	32,349	18,624	9,877

## POPULATION.

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-continued.

		WIDOWERS.										
Including step		Total No. of Widowers.	Average No. of Children per Widower	No. of Families of following number of living children (including step-children) under 16 years of age.								
4.	5 and over.			Total.	Not stated.	0.	1.	2.	3.	4.	5 and over.	
7,836	5,664	6,296	0.56	6,296	1,710	2,673	971	516	254	112	60	
4,554	2,743	9,481	0.30	9,481	2,474	5,324	839	443	197	72	32	
1,414	1,253	2,175	0.37	2,175	775	970	229	106	56	19	20	
8,182	7,068	15,647	0.32	15,647	5,273	7,642	1,436	729	292	165	110	
5,729	3,676	10,738	0.57	10,738	2,901	5,361	1,469	613	234	97	38	
5,519	4,767	8,349	0.41	8,349	2,723	3,790	940	486	243	101	66	
7,850	8,119	6,638	0.62	6,638	1,990	2,623	952	511	289	167	106	
30,552	32,424	49,123	0.36	49,123	19,992	20,293	4,149	2,300	1,323	637	429	
5,524	5,504	180,580	0.03	180,580	80,065	97,511	1,740	676	305	148	135	

TABLE 9.

## COURSE OF WHOLESALE PRICES IN THE UNITED KINGDOM.

The following table shows the general course of wholesale prices before and since the war, as indicated by the index numbers of the Board of Trade. The percentage proportions of the index numbers for the various periods to those for 1913 are given in the table. A change in the method of compilation of the index numbers was made in 1920, and the later series is based on more comprehensive data than the earlier series.

Period.		Food.	Materials.	All Articles.
(a)	Average 1875-9 .. ..	124.8	98.1	115.7
	" 1880-4 .. ..	116.2	89.2	107.0
	" 1885-9 .. ..	93.9	76.3	87.9
	" 1890-4 .. ..	92.6	74.7	86.5
	" 1895-9 .. ..	83.3	67.9	78.0
	" 1900-4 .. ..	85.6	80.3	83.8
	" 1905-9 .. ..	89.0	85.6	87.8
	" 1910 .. ..	92.6	94.7	93.3
	" 1911 .. ..	94.7	91.7	93.7
	" 1912 .. ..	101.9	92.3	98.6
" 1913 .. ..	100.0	100.0	100.0	
(b)	" 1920 .. ..	271.8	328.5	307.3
	" 1921 .. ..	209.0	190.9	197.2
	" 1922 .. ..	165.2	155.3	158.8
	" 1923 .. ..	154.5	161.3	158.9
	" 1924 .. ..	166.3	165.9	166.2
	" Jan.-June, 1925 .. ..	171.8	160.1	164.2

(a) Old Board of Trade Index (47 articles). Relative importance of items : Food, 330 ; Materials, 176.

(b) New Board of Trade Index (150 articles). Relative importance of items : Food, 53 ; Materials, 97.

RECOGNISED HOURS OF LABOUR AND OVERTIME RATES OF PAY AGREED UPON BY EMPLOYERS' ASSOCIATIONS AND TRADE UNIONS.

- Notes :—(i) The recognised hours of labour are those in a full ordinary week (exclusive of overtime).  
(ii) Statistics are not available as to the number of individual establishments in which a longer normal week is in operation or the extent to which overtime over and above these normal hours is worked (see also page 130).  
(iii) Except where hours per shift are quoted, the hours shown are exclusive of meal-times.  
(iv) If no overtime rate appears in any column, there is, so far as is known to the Ministry of Labour, no formal agreement between employers and workpeople fixing such rate.  
(v) The following abbreviations are used in regard to overtime :—  
 $1\frac{1}{4}$  means 25 per cent. above ordinary rates or time and a quarter.  
 $1\frac{1}{2}$  means 33 $\frac{1}{3}$  per cent. above ordinary rates or time and a third.  
 $1\frac{3}{4}$  means 50 per cent. above ordinary rates or time and a half.  
2 means double the ordinary rate.  
(vi) No information is available as to overtime rates paid in industries in which no agreements exist between employers' and work-peoples' associations fixing such rates.

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	Ordinary.	Saturday.	Sunday.
<i>Mining and Quarrying.</i>						
Coal Mining —						
Underground Workers .. ..	Great Britain	8 per shift (a)	7 per shift (a)	$1\frac{1}{4}$	$1\frac{1}{4}$ (b)	$1\frac{1}{4}$ (b)
Surface Workers .. ..	.. ..	51 to 58 (c)	46 $\frac{1}{2}$	$1\frac{1}{4}$	$1\frac{1}{4}$ (b)	$1\frac{1}{4}$ (b)
Ironstone Mining :—						
Underground Workers .. ..	Cleveland	8 per shift (d)	8 per shift (d)	—	—	—
Surface Workers .. ..	.. ..	Various	49	—	—	—
Slate Quarrying .. ..	North Wales	52 $\frac{1}{2}$ to 55 (a)	47 and 47 $\frac{1}{2}$ (a)	$1\frac{1}{2}$ ( $1\frac{1}{2}$ after 2 hours)	—	2
Limestone Quarrying .. ..	S. & W. Durham	48	46 $\frac{1}{2}$	—	—	—

For Footnotes see p. 443.

TABLE 10—continued.

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	Ordinary.	Saturday.	Sunday.
<i>Metal, Engineering and Shipbuilding Trades.</i>						
Pig Iron Manufacture :—						
Shift Workers .. .. .	Great Britain	8 to 12 per shift	8 per shift (approx. 56 per week).	—	—	—
Day Workers .. .. .	" "	Various	47 (usually)	1½ (1½ after 2 hours)	—	2
Iron and Steel Manufacture :—						
Shift Workers (steel smelting)	" "	8 to 12 per shift	8 per shift (approx. 46 per week).	—	1½	—
Shift Workers (iron and steel rolling).	" "	8 to 12 per shift	8 per shift (approx. 42 per week).	—	1½	—
Shift Workers (Gas Producers, &c.).	" "	8 to 12 per shift	8 per shift (approx. 56 per week).	—	—	—
Day Workers .. .. .	" "	Various	47 (usually)	1½ (1½ after 2 hours)	—	2
Railway Workshops, Running Sheds, &c.	" "	Various	47	1½ (1½ after 2 hours and for night work).	—	2
Light Castings Manufacture ..	England.	50 to 54	47	1½ (1½ after 4 hours)	—	2
Heating and Domestic Engineering.	England & Wales	52½ to 54	47	1½ (1½ after 2 hours)	1½	2
Tinplate Manufacture :—						
Shift Workers .. .. .	South Wales & Monmouthshire.	8 to 12 per shift	8 per shift (approx. 44 per week).	—	2 (after 6 p.m.).	2 (to 6 a.m.).
Day Workers .. .. .	" "	53 (generally)	47	1½ (1½ after 2 hours)	—	2
Railway Wagon Building and Repairing.	Great Britain	Various	47	—	—	—
Sheet Metal Working and Gas Meter Making.	" "	Various	47	—	—	—
Lead Smelting :—						
Shift Workers .. .. .	" "	Various	8 per shift (approx. 56 per week).	1½ (1½ after 2 hours)	—	2 (to 6 a.m. Monday).



Day Workers .. .. .	" "	Various	"	"	"	"	Monday).
Copper Smelting and Refining :—							
Shift Workers .. .. .	North East Coast, South Wales, &c.	Various	8 per shift (approx. 42 per week).	—	—	—	
Day Workers .. .. .	" "	Various	47	1½ (1½ after 2 hours)	—	2	
Spelter Manufacture :—							
Shift Workers .. .. .	South Wales	Various	8 per shift (approx. 56 per week).	1½	—	—	
Day Workers .. .. .	" "	54 (generally)	48	1½ (1½ after 2 hours)	—	—	
Jewellery, Silver and Electroplate Working .. .. .	{ Sheffield "	49 to 55	47	1½ (1½ after mid- night).	—	2	
Electric Cable Making .. .. .	{ Birmingham Great Britain	49 to 55	47	1½ (1½ after 2 hours)	—	2	
Hollow-ware .. .. .	" "	Various	47 (g)	1½ (f)	1½ (f)	2 (f)	
Tin Box Making .. .. .	" "	Various	48 (g)	1½	—	2 (f)	
Stamped or Pressed Metal Wares	" "	Various	47 (g)	1½ (1½ after 2 hours) (f)	1½ ( )	2 (f)	
Metallic Bedstead-making .. .. .	" "	Various	48	—	—	—	
Farmery .. .. .	" "	51 to 55	47 (h)	1½ or 1½ (h)	—	—	
Ammunition, Tube and Wire Rope-making.	Midland Counties	53 or 54	47	1½ (1½ after 4 hours)	1½ (after 6 p.m.)	1½	
Engineering and Boilermaking :—							
Time Workers :—							
Day Shift .. .. .	Great Britain	53 or 54 (i)	47	1½ (2 after mid- night).	—	2	
Night Shift .. .. .	" "	53 or 54 (i)	47	1½ (on day work rate).	—	2	
Piece Workers :—							
Day Shift .. .. .	" "	53 or 54 (i)	47	Piece-rate plus 50% of time-rate.	—	2	
Night Shift .. .. .	" "	53 or 54 (i)	47	Piece-rate plus 66⅔% of time-rate.	—	2	
Shipbuilding :—							
Time Workers :—							
Day Shift .. .. .	" "	53 or 54 (i)	47	1½	(a)	2	
Night Shift .. .. .	" "	53 or 54 (i)	47	1½	(a)	2	

For Footnotes see p. 443.

TABLE 10—continued.

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	•Ordinary.	Saturday.	Sunday.
<i>Metal, Engineering and Shipbuilding Trades—continued.</i>						
Shipbuilding—continued.						
Piece Workers:—						
Day Shift .. .. .	.. ..	53 or 54 (i)	47	1½ of piecework earnings.	(a)	1½ of piecework earnings.
Night Shift .. .. .	.. ..	53 or 54 (i)	47	1½ of piecework earnings.	(a)	1½ of piecework earnings.
<i>Textile Trades.</i>						
Cotton Industry:—						
Preparing, Spinning and Weaving Depts.	Lancashire and adjoining Counties	55½	48	—	—	—
Boiler Firemen, Under Engineers, Oilers, Greasers, &c.	.. ..	55½	48	1½ (1½ after 2 hours)	1½	1½
Mill Engineers .. .. .	N. & N.E. Lancashire.	55½	48	1½ (1½ after 2 hours)	1½	1½
Tapers .. .. .	Darwen	55½	48	1½	—	—
Tapers .. .. .	Blackburn	55½	48	1½ (1½ after 12 hours per week).	1½	1½
Wool Textile Industry:—						
Woollen and Worsted Weaving:						
Time Workers .. .. .	West Riding of Yorkshire	55½ (generally)	48	1½ (1½ after 2 hours)	—	—
Piece Workers .. .. .	.. ..	55½ (generally)	48	(j)	—	—
Worsted Spinning:—						
Time Workers .. .. .	.. ..	55½ (generally)	48	1½ (1½ after 2 hours)	—	—
Piece Workers .. .. .	.. ..	55½ (generally)	48	1½	—	—
Enginemn, Firemen and Greasers.	.. ..	55½ (generally)	48	1½ (1½ after 2 hours)	1½	2

Worsted Spinning). Managers and Overlookers (Worsted Spinning).	" "	55½ (generally)	48	1½	—	—
Lace Manufacture .. .. .	Nottingham	54 or 55	48 (generally)	1½ (Curtain Section)	—	—
Silk Industry .. .. .	Leek	49½ to 56	48	1½ (1½ after 8 p.m.)	1½	—
Hosiery Manufacture .. .. .	Leicester & Nottingham Districts.	Various	48	3d. per hour (h)	—	—
Jute Industry .. .. .	Dundee	55	48 (g)	1½ (f)	—	2 S
Flax and Hemp Industry .. .. .	Great Britain	Various	48 (g)	1½	1½ (f)	2 S
Carpet Manufacture ..	England	55 to 55½	48	(1½ after 2 hours) (g)	—	—
	Scotland	49 to 56	48	1½ (1½ after 2 hours)	—	—
	Yorkshire :—					
Bleaching, Dyeing and Finishing.	Engineers ..	54 to 55½	48	1½ (1½ after 2 hours)	—	1½
	Others ..	54 to 55½	48	4½d. per hour (h)	9d. per hour	2
	Lancs, Cheshire, Derby	{ 55½ to 56 (day) 50 to 52½ (night)	{ 48 (day) 43½ (night)	{ 1½ (1½ after 2 hours) Piece-workers 3d. an hour.	—	—
	Scotland ..	55 to 56	48	Piece-workers 3d. per hour	—	—
<i>Chemical, Brick, Pottery, &amp;c., Trades.</i>						
Chemical Manufacture :—						
Shift Workers .. .. .	England & Wales	12 per shift.	8 per shift (average per wk. = 56).	1½ (1½ after 2 hours)	—	—
Day Workers .. .. .	" "	53 or 54	47	1½ (1½ after 2 hours)	—	—
Brickmaking .. .. .	Great Britain	Various	48	1½ (1½ after 2 hours)	1½	2
Cement Making .. .. .	" "	54 to 56½	48	1½	1½	2
Pottery Manufacture :—						
Labourers, Stokers and Engine-men.	North Staffordshire.	55	48	1½	—	—
Other Workers .. .. .	" "	52 (generally)	47	—	—	—
Match Manufacture .. .. .	Great Britain	50 to 56	47	—	—	—
Paint, Colour and Varnish Manufacture.	" "	Various	47	1½ (1½ after 2 hours)	1½	2

For Footnotes see p. 443.

TABLE 10—*continued.*

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	Ordinary.	Saturday.	Sunday.
<i>Chemical, Brick, Pottery, &amp;c., Trades—continued.</i>						
Glass Bottle Making (Process Workers).	England ..	47½	7½ per shift (approx. 38 per week exclusive of meals). 9 per shift (45 per week). 6 per shift (48 per week).	—	—	—
	Scotland ..	48½		—	—	—
	Midlands ..	6 per shift (48 per week).		—	—	—
Flint Glass Manufacture..	Midlands ..	6 per shift (48 per week).	6 per shift (48 per week).	—	—	—
<i>Clothing Trades.</i>						
Boot and Shoe Manufacture ..	Great Britain	52½ (generally)	48	1½	1½	—
Boot and Shoe Repairing ..	" "	Various	48 (g)	1½ (1½ after 2 hours) (f)	1½ (1½ after 2 hours) (f)	2 (f)
Corset Making .. .. .	" "	Various	48 (g)	1½ (1½ after 2 hours) (f)	1½ (f)	2 (f)
Dressmaking .. .. .	England & Wales	Various	48 (g)	1½ (1½ after 2 hours) (f)	1½ (f)	2 (f)
	Scotland ..	Various	46 (g)	1½ (1½ after 2 hours) (f)	1½ (f)	2 (f)
Tailoring (Retail Bespoke) ..	Great Britain	Various	48 (g)	1½ (1½ after 2 hours) (f)	1½ (f)	2 (f)
Tailoring (Wholesale) .. ..	" "	Various	48 (g)	1½ (1½ after 2 hours, 2 after 4 hours) (f)	1½ (2 after 4 hours) (f).	2 (f)
Shirtmaking :—						
Males .. .. .	" "	52	48 (g)	1½ (1½ after 2 hours, 2 after 4 hours) (f)	1½ (1½ after 2 hours, 2 after 4 hours) (f)	2 (f)
Females.. .. .	" "	52	48 (g)	1½ (1½ after 2 hours, 2 after 4 hours) (f)	1½ (2 after 4 hours) (f)	2 (f)

Wholesale Mantle and Costume Making.	" "	Various	48 (g)	1½ (1½ after 2 hours, 2 after 4 hours) (f)	1½ (2 after 4 hours) (f)	2 (f)
Hat, Cap and Millinery Trade	England & Wales	Various	48 (g)	1½ (1½ after 2 hours per week) (f)	1½ (f)	2 (f)
	Scotland ..	Various	46 (g)	1½ (1½ after 2 hours per week) (f)	1½ (f)	2 (f)
Laundries :—						
Males .. .. .	Great Britain	Various	48 (g)	1½ (1½ after 6 hours per week) (f)	1½ (1½ after 4 hours) (f)	2 (f)
Females .. .. .	" "	Various	48 (g)	1½ (1½ after 2 hours) (f)	1½ (1½ after 2 hours) (f)	2 (f)
Dyeing and Cleaning	" "	47 to 51	47	1½ (m)	—	—
Glove Making :—						
Males .. .. .	England	Various	47	—	—	—
Females .. .. .	" "	Various	44	—	—	—
Felt Hat Making	Bury, Denton, Hyde & Stockport.	55½	46½	—	—	—
<i>Transport Trades.</i>						
Railway Service (Traffic Section) :						
Day Workers .. .. .	Great Britain	Various	48	1½	—	1½
Night Workers .. .. .	" "	Various	48	1½	—	—
Road Transport .. .. .	Certain Districts	55½ to 68	48	1 (1½ after 1 hour, 1½ after 3 hours) or 1 (1½ after 6 hours per week) (h)	—	2
Tramways .. .. .	Great Britain	49½ to 61½	48	1½ (1½ after 2 hours)	—	1½
Dock Labour :—						
(Meal times paid for) .. .. .	Principal Ports	Various	44 (8 per day)	1½	1½ (2 after 5 p.m.)	2
(Meal times not paid for) .. .. .	" "	Various	44 (8 per day)	1½	1½ (2 after 5 p.m.)	2
Motor Omnibus Service (Drivers and Conductors).	London	63 and 64	48	1½ (1½ after 2 hours)	—	—
Furniture Removing and Warehousing.	Great Britain	60 (generally)	48	—	—	—

For Footnotes see p. 443.

TABLE 10—continued.

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	Ordinary.	Saturday.	Sunday.
<i>Building and Allied Trades.</i>						
Building Trade .. .. .	Great Britain	48½ to 56½ (n)	46½ (o)	1½ (1½ after 2 hours, 2 after 4 hours).	1½ (2 after 4 p.m.).	2
Electrical Installation :—						
Day Workers .. .. .	.. .. .	48 to 56	47	1½ (2 after mid- night).	(a)	2
Night Workers .. .. .	.. .. .	48 to 56	47	1½ (of day work rates).	(a)	2
Civil Engineering Construction ..	.. .. .	56 (approx.)	{ 49½ (summer) 44½ (winter)	1½ (1½ after 2 hours, 2 after 4 hours).	1½ (2 after 4 p.m.).	2
<i>Distributive Trades.</i>						
Retail Stores :—						
Shop Assistants, &c. .. .. .	London (certain large firms).	Various	48	1½	—	2
Transport Workers .. .. .	.. .. .	Various	48	{ 1½ (1½ after 3 hours), or 1 (1½ after 6 hours per week).	—	2
Co-operative Societies ..	{ England & Wales Scotland .. .. .	Various	48 (generally)	1½ (i)	—	2
Milk Distribution :—						
Shop Assistants .. .. .	England & Wales	Various	48 (g)	1 (1½ after 6 hours per week) (j)	—	1 (2 after 1 hour).
Others .. .. .	.. .. .	Various	48 (g)	1 (1½ after 1 hour, 1½ after 2 hours) (f)	—	2 (f)
All Classes .. .. .	Scotland	Various	48 (g)	1 (1½ after 4 hours per week, 1½ after 8 hours per week) (f)	—	2 (f)
Wholesale Textile Warehouses ..	London	Various	44	—	—	—

<i>Food, Drink and Tobacco Trades.</i>						
Baking Trade .. ..	England & Wales	50 to 54	48 (h)	1½ (1½ after 2 hours)	2 (after 7 p.m.) (h)	2 (h)
	Scotland ..	48 to 51	44 to 47 (h)	1½ (h)	—	2 (h)
Flour Milling :—	Great Britain	56 (generally)	8 per shift, 44 per wk.	1½ (1½ after 10 hours per week).	1½	2
Shift Workers .. ..	" "	56 (generally)	47 (h)			
Day Workers .. ..	" "	" "	" "	1½ (1½ after 2 hours)	1½	2
Cocoa, Chocolate, Sugar Confectionery, &c., Manufacture :—	" "	Various	44			
Shift Workers .. ..	" "	Various	47	1½	—	2 (f)
Day Workers .. ..	" "	Various	48 (g)	(1½ after 2 hours) (f)	1½ (1½ after 1 hour per week).	1½
Tobacco Manufacture .. ..	" "	Various	48	1 (1½ after 2 hours) (f)		
Breweries .. ..	Burton-on-Trent	54 (at Burton)	48	1½ (1½ after 2 hours)	1½ (1½ after 2 p.m.).	1½
	London, Northumberland, Durham & Yorkshire	Various	48	1 (1½ after 1 hour per week).	1½	2
Sugar Refining :—	Great Britain	Various	8 per shift	—	—	—
Shift Workers .. ..	" "	Various	47	—	—	—
Day Workers .. ..	" "	Various	48 (g)	1½	1½ (f)	2 (f)
Aerated Water Manufacture	England & Wales	Various	48 (g)	(1½ after 2 hours) (f)	—	2 (f)
	Scotland ..	Various	48 (g)	1½ (f).	—	2 (f)
<i>Paper, Printing, &amp;c.</i>						
Printing, Bookbinding and Allied Trades.	England & Wales	50 or 51 (generally)	48 (p)	1½ (1½ after 2 hours, 2 after 5 hours).	1½ (2 after 5 hours).	2
	Scotland ..	50 or 51 (generally)	48	1½ (m)	2 (m)	3 (m)
Paper Making :—	Great Britain	Various	44	1½	1½	2
Shift Workers in 3-Shift Mills ..	" "	Various	46			
Shift Workers in 2-Shift Mills ..	" "	Various	48	1½	1½ (f)	2 (f)
Day Workers .. ..	" "	Various	48 (g)			
Paper Box Making .. ..	" "	Various	48 (g)	(1½ after 2 hours) (f)	—	2 (f)
Paper Bag Making .. ..	" "	Various	48 (g)	1½ (1½ after 2 hours, 2 after 4 hours). (f)	—	2 (f)

For Footnotes see p. 443.

TABLE 10—continued.

Industry.	District.	Recognised Hours of Labour.		Overtime Rates.		
		December, 1918.	June, 1925.	Ordinary.	Saturday;	Sunday.
<i>Public Utility Services.</i>						
Electricity Supply:—						
Shift Workers .. .. .	Great Britain	Various	8 per shift (g)	1½ (1½ after 2 hours, 2 after 4 hours) (h)	—	1½ or 2 (h)
Day Workers .. .. .	" "	Various	47	1½ (1½ after 2 hours, 2 after 4 hours) (h)	—	2 (h)
<i>Gas Works:—</i>						
Shift Workers .. .. .	" "	Various	8 per shift (g)	—	—	1½
Day Workers .. .. .	" "	Various	47	1½ (1½ after 2 hours)	—	1½
Local Authorities (Non-Trading Services).	" "	Various	44 to 48	1½ (1½ after 3 hours)	—	2
<i>Waterworks:—</i>						
Shift Workers .. .. .	England & Wales	Various	8 per shift	} 1½ (1½ after 2 hours)	—	1½
Day Workers .. .. .	" "	Various	47			
<i>Woodworking Trades.</i>						
Furniture Making .. .. .	" "	48 to 53	44 to 47	1½ (1½ after 2 hours, 2 after 4 hours) (h)	1½ (2 after 4 hours) (h)	2 (h)
Mill Sawing .. .. .	" "	49 to 58½	44 to 48	1½ (1½ after 2 hours, 2 after 4 hours) (h)	1½ or 2 (h)	2 (h)
Vehicle Building .. .. .	Great Britain	50 to 54	47	1½ (1½ after 2 hours, 2 after 4 hours).	1½ (2 after 2 hours).	2
Coopering .. .. .	" "	50 to 54	47	1½ (1½ after 2 hours)	1½	2
Packing-Case Making .. .. .	" "	48 to 54	47 (generally)	—	—	—
<i>Miscellaneous Trades.</i>						
General Waste Materials Reclamation.	" "	Various	48 (g)	1½ (1½ after 2 hours) (f)	—	2 (f)
Brush and Broom Making .. .. .	" "	Various	48 (g)	1½ (1½ after 2 hours) (f).	—	2 (f)



1933	Leather Tanning and Currying ..	" "	50 to 54	48	(1½ after 2 hours) (r)	1½	2
	Fellmongery .. .. .	" "	55 (generally)	48	1½	1½	1½
	Patent Fuel Manufacture — Shift Workers .. .. .	Swansea, Llanelly & Neath	Various	8 per shift (approx. 42 per week).	—	—	—
	Day Workers .. .. .	" "	Various	47	1½ (2 after mid- night).	1½	2
	Saddlery, Harness, Portmanteau, Bag and Fancy Leather Trades.	" "	50 to 54	48	—	—	—
	India Rubber Industry .. .. .	Great Britain	48 to 60	47 and 48	—	—	—
	Basket Making .. .. .	Yorkshire, Lan- cashire, Cheshire, London & Mid- lands	50 to 60	48	—	—	—

(a) The number of shifts worked per week varies in different districts and according to the state of trade. See page 128 as to the effect of "winding time" on the length of the shift.

(b) Payable from commencement of the Saturday afternoon shift to the commencement of the Sunday night shift.

(c) The hours in Northumberland and Durham were in some cases longer.

(d) The number of shifts worked per week varies according to the state of trade.

(e) The hours quoted are those for the summer months; in winter the hours are less.

(f) As specified in Trade Board orders.

(g) Hours, as specified in Trade Board orders, beyond which overtime rates are payable.

(h) There is no general agreement, but the conditions shown appear in the majority of local agreements.

(i) A shorter week was worked in some of the ship-repairing centres.

(j) In addition to piece-work earnings, 1½d. per hour is paid for the first 2 hours and 3d. per hour after 2 hours. These additions are subject to the addition of cost of living wage, &c., which amounted to 80 per cent. in June, 1925.

(k) Subject to a bonus of 8d. in the shilling on total earnings.

(l) For work done by day workers before 6 a.m. or after 6 p.m., and by night workers before 6 p.m. or after 6 a.m., 9d. per hour.

(m) Compositors only.

(n) The hours quoted are those for the summer period; in winter the working week was shorter.

(o) The hours quoted are those applicable during the statutory summer period, except in districts where it is agreed to work 44 hours. Except in the statutory summer period the hours are generally 44. In the principal towns in Scotland and in some towns in England and Wales, 44 hours have been agreed upon for the summer period also.

(p) For some occupations, the hours were less than 48.

(q) In some towns shift-workers average 6 shifts per week and in others 7 shifts per week.

(r) In the case of "wet workers" in the light leather and chrome tanning section, the first 5 hours are paid for at ordinary time rates and the second 5 hours at time and a quarter and subsequent hours at time and a half.

TABLE 11.  
*Percentages of Insured Workpeople Unemployed at the end of each Quarter from June, 1923, to June, 1925.*  
*(Great Britain and Northern Ireland.)*

## A. MALES.

Industry.	Percentage Unemployed.								
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.
Fishing .. .. .	9.9	13.1	18.2	13.8	11.1	11.4	16.2	14.6	12.5
Mining :—									
Coal Mining .. .. .	2.5	3.1	2.4	2.1	4.7	8.2	7.9	11.8	25.0
Iron Ore and Ironstone Mining and Quarrying .. .. .	18.1	25.1	19.4	22.6	21.4	26.5	18.6	17.8	25.4
Lead, Tin and Copper Mining .. .. .	23.2	19.6	18.2	15.5	14.9	17.4	18.0	18.3	14.2
Stone Quarrying and Mining .. .. .	4.2	6.0	6.2	4.3	4.0	5.0	6.3	6.1	6.0
Slate Quarrying and Mining .. .. .	1.3	1.3	1.8	1.7	1.2	1.3	1.1	1.7	1.4
Other Mining and Quarrying .. .. .	7.3	5.9	6.7	5.2	4.7	6.3	7.7	7.2	6.4
Clay, Sand, Gravel & Chalk Pit Digging .. .. .	5.5	5.9	6.5	4.9	4.1	4.3	4.6	3.8	3.0
Non-Metalliferous Mining Products :—									
Coke Ovens and Bye-Product Works .. .. .	6.3	6.0	5.3	5.8	6.7	9.2	13.4	11.6	13.8
Artificial Stone and Concrete Manufacture .. .. .	14.0	15.6	18.7	14.3	13.9	13.4	20.4	16.8	13.5
Cement, Limekilns and Whiting Works .. .. .	8.8	8.0	10.0	8.9	7.0	6.8	7.0	5.9	4.8
Brick, Tile, &c., Making .. .. .	7.4	7.0	7.9	6.3	5.3	6.1	7.0	6.2	5.4

(1953)	Pottery, Earthenware, &c. .. ..	10.3	10.3	12.3	10.3	8.9	8.4	15.3	11.0	13.0
	Glass Trades :—									
	Glass (excluding Bottles, Optical and Scientific Glass) Manufacture	17.9	13.9	12.6	12.8	12.3	15.0	13.0	14.3	11.5
	Glass Bottle Making .. ..	24.6	21.9	19.7	19.8	18.0	23.5	19.3	22.5	18.4
	Ammunition Explosives, Chemicals, &c. :—									
	Chemicals manufacture .. ..	12.9	12.5	11.3	9.2	9.7	9.9	9.9	8.8	9.4
	Explosives Manufacture .. ..	14.4	13.6	11.6	10.6	9.9	8.4	9.5	7.5	6.8
	Paint, Varnish, Japan, Red and White Lead, Manufacture	4.2	3.9	4.6	4.6	4.8	4.8	4.1	4.6	4.7
	Oil, Grease, Glue, Soap, Ink, Match, &c., Manufacture	8.9	8.7	7.5	6.4	7.2	8.3	6.3	8.0	8.7
	Metal, Manufacture and Secondary Processes :—									
	Pig Iron Manufacture (Blast Furnaces)	9.5	16.3	11.4	11.8	13.5	15.7	18.1	18.2	19.6
	Steel Melting and Iron Puddling Furnaces, Iron and Steel Rolling Mills and Forges	20.8	22.0	17.3	16.5	18.9	26.0	28.0	24.2	25.0
	Manufacture of Brass, Copper, Zinc, Tin, Lead, &c.	16.8	16.5	13.3	11.7	11.2	11.8	12.1	12.0	12.3
	Manufacture of Tin Plates .. ..	3.7	3.4	3.7	3.6	2.6	3.7	47.4	39.9	20.4
	Iron and Steel Tube Making .. ..	15.4	19.1	15.0	14.6	11.9	16.2	20.6	20.4	18.8
	Wire, Wire Netting, Wire Rope Manufacture	9.1	10.9	10.2	9.1	10.4	13.4	12.1	14.1	15.1
	Engineering, &c. :—									
	Engineering : Engineers Iron and Steel Founding	21.8	21.1	19.1	16.7	14.6	15.6	14.3	13.4	12.8
	Electrical Engineering .. ..	7.1	7.2	5.9	5.6	5.3	5.1	4.9	5.3	5.5
	Marine Engineering, &c. .. ..	21.3	25.3	22.6	16.5	15.1	17.2	17.4	18.8	19.7
P 2	Constructional Engineering .. ..	12.2	11.1	12.1	13.3	12.3	14.0	14.1	14.3	12.8

TABLE 11.—A. MALES—continued.

Industry.	Percentage Unemployed.									
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.	
Construction and Repair of Vehicles :—										
Construction and Repair of Motor Vehicles, Cycles and Aircraft	9·8	12·6	10·4	7·9	7·2	10·7	7·6	6·6	6·0	
Construction and Repair of Carriages, Carts, &c.	14·1	15·3	13·6	11·8	10·1	12·9	12·2	11·0	10·0	
Railway Carriage, Wagon and Tramcar Building	4·3	4·8	5·2	4·1	4·9	7·1	7·9	6·8	6·7	
Shipbuilding and Ship Repairing .. ..	44·1	43·7	34·5	28·6	27·4	30·8	32·2	33·6	33·2	
Metal Trades :—										
Stove, Grate, Pipe, &c., and General Ironfounding	17·6	18·4	15·5	12·3	11·1	12·7	11·8	10·5	10·8	
Electrical Wiring and Contracting ..	17·7	15·3	9·2	9·6	9·2	8·9	7·0	10·2	8·5	
Electrical Cable, Wire and Electric Lamp Manufacture	9·9	9·5	7·9	8·0	6·9	7·4	6·4	7·7	7·0	
Hand, Tool, Cutlery, Saw, File Making	17·2	18·9	15·5	17·0	15·1	16·4	12·3	13·8	13·2	
Bolts, Nuts, Screws, Rivets, Nails, &c., Manufacture	16·1	16·5	13·1	11·9	10·6	15·3	17·4	16·7	13·9	
Brass and Allied Metal Wares Manu- facture	20·9	21·2	18·5	16·3	14·8	16·9	13·2	13·0	11·9	
Heating and Ventilating Apparatus..	6·9	6·3	4·2	5·2	4·9	4·3	5·3	9·7	7·0	
Watches, Clocks, Plate, Jewellery, &c., Manufacture	14·6	14·0	10·8	14·4	14·8	14·2	11·7	12·3	11·5	
Other Metal Industries .. ..	10·6	11·2	10·5	9·7	9·5	11·5	9·9	10·1	9·7	

(1932)	Textile Trades:—											
	Cotton .. .. .	19.5	18.3	10.1	15.3	14.1	13.3	5.9	6.7	6.8		
	Woolen and Worsted .. .	8.1	11.4	10.2	5.3	6.6	8.3	9.7	13.8	17.3		
	Silk .. .. .	6.4	7.6	9.5	6.2	4.1	4.8	6.1	6.9	5.5		
	Linen .. .. .	16.2	19.3	15.4	13.2	15.4	13.9	12.7	22.9	33.4		
	Jute .. .. .	12.5	13.6	13.8	13.0	11.5	13.3	12.8	13.5	16.9		
	Hemp, Spinning and Weaving, Rope, Cord, Twine, &c., Making	12.0	13.5	10.7	11.6	12.3	12.0	11.3	12.0	10.7		
	Hosiery .. .. .	6.5	10.2	7.5	5.3	4.5	7.1	7.7	6.7	6.8		
	Lace .. .. .	32.3	30.4	22.6	22.1	22.5	22.1	25.4	22.9	21.8		
	Carpet Manufacture .. .	3.7	4.5	3.5	4.0	4.6	5.2	4.9	5.2	7.1		
	Other Textile Industries	9.3	10.6	10.3	9.6	9.2	10.0	9.4	10.3	9.1		
	Textile Bleaching, Printing, Dyeing, &c.	11.2	15.8	13.1	13.2	12.7	13.8	11.3	12.3	12.0		
	Leather and Leather Goods:—											
	Tanning, Currying and Leather Dressing	11.7	12.0	10.5	10.0	9.6	9.9	8.4	10.1	11.0		
Saddlery, Harness and Other Leather Goods, Manufacture	13.2	11.4	10.9	10.9	9.7	11.4	10.9	11.4	10.5			
Clothing Trades:—												
Tailoring .. .. .	6.5	11.3	12.2	10.0	6.2	12.0	13.8	10.8	6.4			
Dress and Mantle Making and Millinery	6.5	7.5	8.1	7.9	6.6	6.9	9.7	8.4	6.9			
Hat and Cap (including Straw Plait), Manufacture	8.6	9.3	17.4	12.1	8.2	8.9	12.0	9.8	6.0			
Blouses, Shirts, Collars, Underclothing, &c., Making	5.4	5.8	5.5	4.6	5.2	5.6	5.4	6.3	5.8			
Other Dress Industries	9.3	11.1	10.2	10.8	8.1	9.3	9.1	10.0	7.8			
Boot, Shoe, Slipper and Clog Trades	10.9	12.0	11.2	11.3	9.3	10.1	13.1	10.9	11.6			
Food, Drink and Tobacco:—												
Bread, Biscuit, Cake, &c., Making	11.9	10.9	10.4	10.5	9.8	10.0	9.9	10.9	9.1			
Grain Milling .. .. .	5.3	5.0	4.2	4.7	5.3	4.9	4.8	4.3	5.0			
Cocoa, Chocolate and Sugar Confectionery	6.2	7.2	8.0	8.6	7.5	6.6	7.3	7.6	8.0			

TABLE 11.—A. MALES—*continued*.

Industry.	Percentage Unemployed.									
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.	
Food, Drink and Tobacco ( <i>contd.</i> ):—										
Other Food Industries .. .. .	7.8	8.1	9.3	7.7	7.7	7.1	12.3	9.1	8.3	
Drink Industries .. .. .	6.3	6.0	5.1	5.5	5.9	5.6	5.1	5.7	5.4	
Tobacco, Cigar, Cigarette and Snuff, Manufacture	6.6	7.2	5.9	7.6	7.7	7.5	5.9	7.1	5.5	
Sawmilling, Furniture and Woodwork :—										
Sawmilling and Machined Woodwork	12.3	11.6	11.1	10.6	9.1	9.9	9.9	10.6	9.3	
Wood Box and Packing Case Making	17.1	18.0	14.6	14.8	13.9	14.2	12.9	16.0	13.4	
Furniture Making, Upholstering, &c.	7.5	9.1	7.6	8.0	6.3	6.9	5.9	6.5	5.5	
Other Woodworking .. .. .	13.6	13.9	11.4	10.7	9.2	11.5	9.7	10.2	10.2	
Printing and Paper Trades :—										
Paper and Paper Board Making ..	7.3	8.9	8.7	9.3	7.2	8.8	7.8	7.7	6.7	
Cardboard Boxes, Paper Bags and Stationery	6.2	5.9	5.5	5.8	6.0	6.1	5.1	6.1	5.2	
Wall Paper Making and Paper Staining	4.8	4.4	3.3	4.1	4.0	3.3	3.0	6.1	3.3	
Stationery and Typewriting Requisites (not paper)	5.3	6.5	6.5	6.3	5.0	5.3	5.7	7.1	6.3	
Printing, Publishing and Bookbinding	5.8	5.9	5.1	5.6	4.9	4.8	4.7	5.3	4.5	
Building and Construction of Works :—										
Building .. .. .	12.6	11.9	13.7	10.2	8.3	9.8	12.0	9.6	7.5	
Public Works, Contracting, &c. ..	19.4	18.6	19.0	17.0	15.9	17.5	19.2	18.3	15.6	
Other Manufacturing Industries :—										
Rubber Manufacture .. .. .	12.6	13.6	12.4	10.0	10.0	11.4	11.5	9.6	8.4	
Oilcloth, Linoleum, &c., Manufacture	4.9	4.5	5.2	5.1	9.3	4.4	4.4	4.3	4.0	

Brush and Broom Making .. ..	12.1	11.4	10.3	8.1	8.9	15.3	12.1	9.6	14.5
Scientific and Photographic Instrument and Apparatus Manufacture	7.1	6.6	5.5	5.2	5.0	4.7	4.6	5.7	4.2
Musical Instrument Making .. ..	6.1	4.9	4.9	8.2	12.4	7.0	5.6	7.8	6.9
Toys, Games and Sports Requisites, Manufacture	11.4	9.3	8.8	9.4	9.7	10.4	10.2	9.5	8.7
Gas, Water and Electricity Supply Industries	7.6	7.0	6.4	6.0	5.8	6.0	6.5	6.6	6.0
Transport and Communication :—									
Railway Service .. ..	6.2	5.7	6.0	5.4	5.2	5.9	6.9	6.6	5.7
Tramway and Omnibus Service .. ..	2.9	3.4	3.5	3.3	2.9	2.8	3.4	3.7	3.4
Other Road Transport .. ..	18.2	17.2	16.6	15.4	15.0	15.7	15.4	15.5	13.5
Shipping Service .. ..	18.2	18.8	21.7	19.6	16.9	19.1	23.6	20.9	20.6
Canal, River, Dock and Harbour Service	25.9	23.1	22.6	24.3	25.5	28.0	25.3	31.3	30.9
Other Transport and Communication and Storage	22.4	20.1	16.6	17.8	16.6	23.5	16.2	15.2	14.4
Distributive Trades .. ..	7.0	7.2	6.8	7.3	7.1	7.1	7.2	8.0	7.8
Commercial, Banking, Insurance and Finance	5.3	5.1	5.3	5.4	4.9	4.5	4.4	4.5	4.0
Miscellaneous Trades and Services :—									
National Government .. ..	13.1	12.0	11.0	10.5	9.6	10.4	9.6	9.8	8.0
Local Government .. ..	6.1	6.6	6.9	6.5	6.3	8.2	9.2	9.5	8.3
Professional Services .. ..	4.9	4.9	4.8	4.8	4.6	4.5	4.8	4.8	4.3
Entertainments and Sports .. ..	15.1	13.5	15.1	14.4	13.2	12.9	16.2	15.2	12.8
Hotel, Boarding House, Club Services	12.0	12.4	14.0	14.2	10.9	11.5	14.0	14.8	10.2
Laundries, Dyeing and Dry Cleaning	5.9	5.6	6.3	6.1	5.4	6.3	6.3	6.4	5.3
Other Industries and Services ..	32.7	34.3	35.0	35.5	33.4	31.0	31.2	33.1	28.8
General Rate for Males ..	12.2	12.3	11.2	10.3	10.0	11.3	11.5	11.9	13.0

TABLE II.—B. FEMALES.

Industry.	Percentage Unemployed.									
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.	
Fishing	9.1	6.4	17.5	10.0	12.6	4.0	20.8	8.5	12.3	
Mining:—										
Coal Mining	4.1	5.9	4.9	4.6	6.5	10.6	10.0	13.8	26.3	
Iron Ore and Ironstone Mining and Quarrying	8.0	8.0	6.0	4.0	6.0	10.0	10.0	7.5	5.0	
Lead, Tin and Copper Mining	12.9	12.9	7.1	4.3	5.7	4.0	8.0	6.0	6.0	
Stone Quarrying and Mining	3.0	5.2	6.7	4.8	1.5	4.7	6.3	7.0	4.0	
Slate Quarrying and Mining	10.0	—	10.0	5.0	5.0	—	20.0	—	—	
Other Mining and Quarrying	11.2	12.3	10.9	11.1	9.7	8.6	10.1	11.6	20.1	
Clay, Sand, Gravel and Chalk Pit Digging	25.3	15.9	12.9	14.7	14.1	7.8	8.1	5.6	6.3	
Non-Metalliferous Mining Products:—										
Coke Ovens and By-Product Works	33.0	18.5	20.5	6.5	9.0	15.0	10.8	23.1	9.6	
Artificial Stone and Concrete Manufacture	13.3	14.2	10.5	10.8	11.1	10.1	11.2	11.2	10.1	
Cement, Limekilns and Whiting Works	5.8	6.3	6.3	4.2	5.0	6.1	8.6	7.4	5.1	
Brick, Tile, &c., Making	12.6	10.2	11.7	11.1	10.6	12.6	14.3	13.3	12.5	
Pottery, Earthenware, &c.	11.2	13.2	17.0	13.4	12.6	14.9	23.8	16.5	22.1	
Glass Trades:—										
Glass (excluding Bottles, Optical and Scientific Glass) Manufacture	8.2	9.0	6.9	7.9	8.4	9.7	9.1	10.1	9.0	
Glass Bottle Making	10.4	11.7	7.8	7.6	6.8	11.3	10.6	12.8	9.4	



Ammunition Explosives, Chemicals, &c.—									
Chemicals Manufacture ..	16.9	6.5	6.4	6.7	16.1	6.7	16.9	16.9	5.8
Explosives Manufacture ..	19.1	10.9	10.8	9.8	7.7	6.1	6.6	6.9	7.5
Paint, Varnish, Japan Red and White	14.7	6.0	5.6	5.6	5.6	5.2	7.1	6.4	4.9
Lead Manufacture ..									
Oil, Grease, Glue, Soap, Ink, Match,	6.8	17.3	6.6	7.6	7.0	7.9	7.5	8.4	6.0
&c., Manufacture ..									
Metal Manufacture and Secondary Pro-									
cesses :—									
Pig Iron Manufacture (Blast Furnaces)	11.8	3.3	14.2	10.8	5.0	12.9	17.4	11.0	7.7
Steel Melting and Iron Puddling	7.6	8.0	6.4	6.8	7.0	11.1	9.5	9.9	7.0
Furnaces, Iron and Steel Rolling									
Mills and Forges ..									
Manufacture of Brass, Copper, Zinc,	14.0	13.8	10.9	10.7	9.2	10.4	8.8	8.9	9.6
Tin, Lead, &c. ..									
Manufacture of Tin Plates ..	4.1	4.8	3.4	4.6	3.1	3.9	31.3	26.2	11.3
Iron and Steel Tube Making ..	16.8	14.5	12.5	13.2	11.9	13.1	11.4	11.4	9.1
Wire, Wire Netting, Wire Rope	8.0	8.9	7.9	8.6	10.3	12.7	10.9	10.6	6.7
Manufacture ..									
Engineering, &c. :—									
Engineering Engineers Iron and Steel	6.0	8.9	5.7	5.8	5.1	5.9	5.7	5.8	5.4
Founding ..									
Electrical Engineering ..	3.2	14.8	14.1	4.9	5.5	5.4	5.3	16.7	6.3
Marine Engineering, &c. ..	1.6	3.9	3.6	3.2	3.2	3.4	2.6	5.0	5.6
Constructional Engineering ..	1.2	7.6	3.6	4.5	4.4	3.9	5.3	4.5	4.7
Construction and Repair of Vehicles :—									
Construction and Repair of Motor	6.2	8.4	6.2	5.4	5.3	9.8	6.7	6.1	5.6
Vehicles, Cycles and Aircraft									
Construction and Repair of Carriages,	17.8	11.2	8.0	8.0	8.2	9.6	8.7	8.4	7.4
Carts, &c. ..									
Railway Carriage, Wagon and Tramcar	2.3	1.8	3.2	2.7	2.3	2.6	3.4	3.6	3.8
Building ..									

TABLE 11.—B. FEMALES—continued.

Industry.	Percentage Unemployed.								
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.
Shipbuilding and Ship Repairing .. ..	11.3	8.6	8.1	6.5	5.5	6.9	6.2	5.4	5.7
Metal Trades :—									
Stove Grate, Pipe, &c., and General Ironfounding	10.3	11.9	10.4	11.4	12.0	11.4	12.1	11.3	9.1
Electrical Wiring and Contracting ..	3.3	5.0	2.9	3.1	2.9	2.2	3.1	3.6	3.4
Electrical Cable, Wire and Electric Lamp Manufacture	9.6	8.9	7.3	8.1	7.7	6.7	6.3	8.9	9.0
Hand Tool, Cutlery, Saw File Making..	13.0	12.5	9.6	14.1	12.7	11.8	11.3	13.9	10.3.
Bolts, Nuts, Screws, Rivets, Nails, &c., Manufacture	17.8	16.4	14.0	13.1	12.5	17.3	16.1	14.3	13.1
Brass and Allied Metal Wares Manu- facture	20.0	20.9	17.3	16.4	15.5	16.6	15.4	14.5	12.4
Heating and Ventilating Apparatus ..	1.7	1.9	2.9	3.6	4.5	1.2	1.6	3.3	2.1
Watches, Clocks, Plate, Jewellery, &c., Manufacture	10.6	9.0	8.4	10.3	10.4	9.1	9.1	11.4	9.6
Other Metal Industries.. .. .	10.9	12.3	11.4	11.7	12.5	14.1	13.2	12.6	11.6
Textile Trades :—									
Cotton .. .. .	22.2	21.2	13.1	15.4	15.8	14.9	7.6	7.5	9.7
Woolen and Worsted .. .. .	5.8	10.7	9.8	4.8	5.3	7.2	8.8	14.1	21.4
Silk .. .. .	6.3	10.5	9.7	7.8	4.4	5.9	7.8	8.6	8.0
Linen .. .. .	15.7	21.7	14.9	7.4	9.0	9.4	10.2	23.4	39.3
Jute .. .. .	10.9	10.3	8.2	8.4	8.5	8.4	8.9	10.2	15.5
Hemp, Spinning and Weaving, Rope, Cord, Twine, &c., Making	17.1	15.2	14.1	15.2	17.5	21.0	16.3	18.6	21.4

Hosiery .. .. .	6·8	10·2	8·6	6·6	5·0	7·7	9·3	9·3	10·1
Lace .. .. .	15·6	18·6	11·7	11·8	13·7	14·6	17·1	12·4	12·9
Carpet Manufacture .. .. .	3·3	5·7	4·5	6·5	8·1	8·2	8·9	9·3	13·3
Other Textile Industries .. .. .	15·5	17·0	14·6	12·2	11·8	11·5	13·9	13·9	14·0
Textile Bleaching, Printing, Dyeing, &c.	9·6	15·4	10·6	9·8	12·1	11·0	12·8	12·9	12·7
<b>Leather and Leather Goods :-</b>									
Tanning, Currying and Leather Dressing	9·5	10·2	9·9	12·4	11·8	11·2	13·0	13·1	14·0
Saddlery, Harness and other Leather Goods Manufacture	10·1	9·3	8·7	10·0	10·3	8·8	9·2	10·9	9·9
<b>Clothing Trades :-</b>									
Tailoring .. .. .	5·2	11·0	12·5	6·7	3·8	11·3	12·0	7·6	4·8
Dress and Mantle Making and Millinery	5·6	7·9	9·5	6·9	4·2	8·1	9·9	7·7	4·3
Hat and Cap (including Straw Plait) Manufacture	6·4	9·0	10·9	6·1	7·1	12·2	12·8	7·5	5·9
Blouses, Shirts, Collars, Underclothing, &c., Making	7·5	8·3	9·1	5·5	5·6	9·1	9·6	7·3	7·2
Other Dress Industries .. .. .	12·2	14·7	12·5	9·1	8·4	12·1	14·0	10·7	8·6
Boot, Shoe, Slipper and Clog Trades..	5·3	7·0	7·2	6·2	4·6	5·8	9·3	5·9	7·5
<b>Food, Drink and Tobacco :-</b>									
Bread, Biscuit, Cake, &c., Making ..	7·7	6·9	8·0	8·8	7·2	7·8	8·9	9·5	6·8
Grain Milling .. .. .	5·6	5·9	5·4	6·8	7·3	7·0	6·9	6·8	6·3
Cocoa, Chocolate and Sugar Confectionery	9·6	8·0	8·8	15·7	9·9	8·3	11·2	13·0	13·6
Other Food Industries .. .. .	13·5	14·4	18·7	17·0	13·0	15·5	20·5	15·3	11·4
Drink Industries .. .. .	9·5	12·2	11·3	12·7	9·7	12·8	12·0	13·2	8·9
Tobacco, Cigar, Cigarette and Snuff Manufacture	7·1	6·6	7·2	10·7	8·2	7·2	7·0	10·1	7·4
<b>Sawmilling, Furniture and Woodwork :-</b>									
Sawmilling and Machined Woodwork	6·4	7·4	7·0	8·5	7·1	9·2	7·8	9·5	8·1
Wood Box and Packing Case Making..	13·2	15·0	11·9	13·2	10·5	12·9	15·8	19·9	15·0
Furniture Making, Upholstering, &c... .	5·7	7·2	6·1	7·6	6·5	7·7	7·0	8·2	6·6
Other Woodworking .. .. .	13·9	14·2	10·7	11·8	14·2	15·5	11·5	11·4	14·7

TABLE II.—B. FEMALES—continued.

Industry	Percentage Unemployed.								
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.
Printing and Paper Trades:—									
Paper and Paper Board Making	5.8	7.3	8.4	8.0	7.1	8.0	7.6	8.2	6.8
Cardboard Boxes, Paper Bags and Stationery	8.0	8.4	6.9	8.2	7.4	6.6	7.1	7.6	6.8
Wall Paper Making and Paper Staining	6.5	5.9	3.9	11.3	5.8	2.6	2.9	11.7	5.4
Stationery and Typewriting Requisites (not paper)	4.6	4.5	4.0	5.5	4.4	4.8	6.4	7.3	5.0
Printing, Publishing and Bookbinding	5.2	5.2	5.0	6.3	5.5	5.4	5.6	7.5	5.7
Building and Construction of Works:—									
Building	2.1	2.7	2.0	2.9	2.3	2.3	2.4	3.0	2.4
Public Works Contracting, &c.	2.3	3.4	2.7	1.5	2.4	1.7	3.7	2.7	2.5
Other Manufacturing Industries:—									
Rubber Manufacture	8.2	12.7	12.9	10.2	9.9	11.3	12.9	9.9	9.2
Oilcloth, Linoleum, &c., Manufacture	6.6	8.4	11.9	6.3	6.6	5.0	5.5	7.9	4.6
Brush and Broom Making	8.3	13.1	14.7	8.7	8.7	10.3	10.9	9.2	11.4
Scientific and Photographic Instrument and Apparatus Manufacture	8.5	2.9	3.1	8.1	3.2	4.2	4.8	4.7	4.2
Musical Instrument Making	4.6	4.1	4.6	7.7	8.0	5.7	5.1	7.5	4.3
Toys, Games and Sports Requisites Manufacture	13.4	10.6	11.0	14.8	10.1	12.7	13.9	11.5	8.9
Gas, Water and Electricity Supply Industries	3.2	3.7	4.2	3.4	2.7	3.8	3.8	4.8	3.0

Transport and Communication :—									
Railway Service .. .. .	2.1	2.4	4.8	4.3	2.4	2.8	5.5	4.4	2.9
Tramway and Omnibus Service ..	2.0	2.1	3.2	3.5	3.1	3.9	5.1	5.7	4.4
Other Road Transport .. .. .	2.1	2.3	2.8	3.5	2.6	3.4	3.8	4.7	3.5
Shipping Service .. .. .	5.6	6.0	9.5	7.2	5.8	7.3	12.6	9.8	7.0
Canal, River, Dock and Harbour Service	7.6	6.4	9.2	7.2	6.2	4.3	5.6	6.3	5.0
Other Transport and Communication and Storage	15.4	11.8	9.1	11.9	11.5	12.0	9.7	14.8	13.2
Distributive Trades .. .. .	4.1	4.7	4.7	6.1	4.8	5.3	5.5	6.8	5.0
Commercial, Banking, Insurance and Finance	2.7	2.5	2.5	2.7	2.2	2.0	2.1	2.1	1.7
Miscellaneous Trades and Services :—									
National Government .. .. .	6.4	5.2	5.1	6.0	4.5	4.3	4.5	4.4	3.0
Local Government .. .. .	1.9	2.4	3.9	3.5	2.7	3.3	4.5	4.3	2.2
Professional Services .. .. .	2.8	3.0	2.8	2.9	2.6	2.4	2.5	2.5	2.0
Entertainments and Sports .. ..	12.0	10.2	10.6	12.4	11.4	9.4	11.3	11.2	10.2
Hotel, Boarding House, Club Services	8.9	9.9	13.5	12.6	8.9	9.2	14.1	12.3	7.9
Laundries, Dyeing and Dry Cleaning ..	4.9	5.8	6.3	6.0	5.5	6.5	6.7	6.8	5.2
Other Industries and Services .. ..	9.9	10.9	11.2	9.7	9.7	8.9	10.6	8.3	8.4
General Rate for Females .. .. .	8.9	10.0	8.9	8.6	7.6	8.6	8.7	8.9	8.6

UNEMPLOYMENT.

TABLE 11.—C. TOTALS.

Industry.	Percentage Unemployed.								
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.
Fishing .. .. .	9.9	12.9	18.2	13.7	11.1	11.2	16.3	14.5	12.5
Mining :—									
Coal Mining .. .. .	2.5	3.1	2.4	2.1	4.7	8.2	7.9	11.8	25.0
Iron Ore and Ironstone Mining and Quarrying	18.0	25.1	19.4	22.6	21.3	26.5	18.6	17.8	25.4
Lead, Tin and Copper Mining ..	23.1	19.5	18.0	15.4	14.7	17.2	17.9	18.2	14.2
Stone Quarrying and Mining ..	4.2	6.0	6.2	4.3	4.0	5.0	6.3	6.1	6.0
Slate Quarrying and Mining ..	1.4	1.2	1.8	1.7	1.2	1.3	1.2	1.7	1.4
Other Mining and Quarrying ..	7.5	6.3	6.9	5.6	5.0	6.5	7.8	7.5	7.4
Clay, Sand, Gravel and Chalk Pit Digging	5.8	6.0	6.6	5.0	4.3	4.4	4.7	3.8	3.1
Non-Metalliferous Mining Products :—									
Coke Ovens and By-Product Works ..	6.7	6.2	5.5	5.8	6.7	9.3	13.3	11.8	13.7
Artificial Stone and Concrete Manu- facture	14.0	15.5	18.2	14.1	13.7	13.2	19.9	16.4	13.3
Cement, Limekilns and Whiting Works	8.6	8.0	9.9	8.7	6.9	6.8	7.1	6.0	4.8
Brick, Tile, &c., Making .. .. .	8.0	7.4	8.4	6.9	5.9	6.8	7.8	7.0	6.2
Pottery, Earthenware, &c. .. .. .	10.7	11.8	14.6	11.9	10.7	11.5	19.4	13.6	17.4
Glass Trades :—									
Glass (excluding Bottles, Optical and Scientific Glass) Manufacture	16.2	13.0	11.6	11.9	11.6	13.9	12.2	13.5	11.0
Glass Bottle Making .. .. .	23.2	20.9	18.5	18.6	16.9	22.3	18.5	21.5	17.5

<b>Ammunition, Explosives, Chemicals, &amp;c. :-</b>									
Chemicals Manufacture .. ..	11.4	11.1	10.2	8.6	8.9	9.2	9.2	8.4	8.6
Explosives Manufacture .. ..	13.0	12.9	11.4	10.3	9.3	7.8	8.7	7.0	7.0
Paint, Varnish, Japan, Red and White Lead Manufacture	4.3	4.4	4.8	4.8	4.9	4.9	4.8	5.0	4.7
Oil, Grease, Glue, Soap, Ink, Match, &c., Manufacture	8.3	8.3	7.2	6.7	7.1	8.2	6.6	8.1	7.9
<b>Metal Manufacture and Secondary Pro- cesses :-</b>									
Pig Iron Manufacture (Blast Furnaces)	9.4	16.2	11.4	11.8	13.5	15.7	18.0	18.1	19.4
Steel Melting and Iron Puddling Furnaces, Iron and Steel Rolling Mills and Forges	20.6	21.7	17.1	16.3	18.7	25.7	27.6	23.9	24.7
Manufacture of Brass, Copper, Zinc, Tin, Lead, &c.	16.5	16.2	13.1	11.6	11.0	11.7	11.8	11.7	12.1
Manufacture of Tin Plates .. ..	3.8	3.6	3.6	3.8	2.7	3.7	45.0	37.9	19.0
Iron and Steel Tube Making .. ..	15.4	18.8	14.9	14.5	11.9	16.0	20.1	19.9	18.3
Wire, Wire Netting, Wire Rope Manu- facture	8.9	10.6	9.8	9.1	10.4	13.3	11.9	13.5	14.2
<b>Engineering, &amp;c. :-</b>									
Engineering: Engineers' Iron and Steel Founding	20.9	20.2	18.3	16.1	14.0	15.0	13.7	12.9	12.3
Electrical Engineering .. ..	6.4	6.8	5.6	5.4	5.4	5.2	5.0	5.5	5.6
Marine Engineering, &c. .. ..	21.0	25.0	22.2	16.3	14.9	16.9	17.1	18.5	19.4
Constructional Engineering .. ..	11.8	11.0	11.8	13.0	12.0	13.6	13.8	13.9	12.5
<b>Construction and Repair of Vehicles :-</b>									
Construction and Repair of Motor Vehicles, Cycles and Aircraft	9.4	12.2	10.0	7.6	7.0	10.7	7.5	6.6	6.0
Construction and Repair of Carriages, Carts, &c.	13.6	14.9	13.2	11.5	9.9	12.5	11.9	10.7	9.8
Railway Carriage, Wagon and Tramcar Building	4.3	4.7	5.1	4.0	4.8	7.0	7.8	6.7	6.7

TABLE 11.—C. TOTALS—continued.

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Industry.	Percentage Unemployed.									
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.	
Shipbuilding and Ship Repairing .. ..	43.7	43.2	34.2	28.3	27.1	30.5	31.9	33.2	32.8	
Metal Trades :—										
Stove, Grate, Pipe, &c., and General Ironfounding	17.0	17.8	15.1	12.2	11.2	12.6	11.9	10.6	10.7	
Electrical Wiring and Contracting ..	16.6	14.6	8.8	9.1	8.8	8.4	6.8	9.7	8.1	
Electrical Cable, Wire and Electric Lamp Manufacture	9.8	9.3	7.7	8.0	7.2	7.1	6.3	8.1	7.7	
Hand Tool, Cutlery, Saw File Making ..	16.1	17.3	14.1	16.3	14.5	15.2	12.0	13.8	12.8	
Bolts, Nuts, Screws, Rivets, Nails, &c., Manufacture	16.8	16.5	13.4	12.4	11.4	16.2	16.9	15.7	13.6	
Brass and Allied Metal Wares Manu- facture	20.6	21.1	18.0	16.3	15.1	16.8	14.0	13.6	12.1	
Heating and Ventilating Apparatus ..	6.5	6.0	4.1	5.1	4.9	4.0	5.0	9.2	6.6	
Watches, Clocks, Plate, Jewellery, &c., Manufacture	12.9	11.9	9.8	12.7	13.0	12.1	10.6	12.0	10.7	
Other Metal Industries .. .. .	10.7	11.6	10.8	10.4	10.6	12.6	11.1	11.0	10.4	
Textile Trades :—										
Cotton .. .. .	21.2	20.1	12.0	15.4	15.2	14.3	7.0	7.2	8.7	
Woolen and Worsted .. .. .	6.8	11.0	9.9	5.9	5.8	7.7	9.2	14.6	19.7	
Silk .. .. .	6.3	9.4	9.6	7.2	4.3	5.5	7.2	7.9	7.1	
Linen .. .. .	15.8	20.9	15.1	9.2	11.0	10.7	11.0	23.3	37.4	
Jute .. .. .	11.4	11.4	10.1	10.0	9.5	10.0	10.1	11.2	15.0	
Hemp, Spinning and Weaving, Rope, Cord, Twine, &c., Making	15.2	14.5	12.8	13.8	15.5	17.7	14.5	16.1	17.5	

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TABLE 11.—C. TOTALS—*continued*.

Industry.	Percentage Unemployed.									
	June, 1923.	Sept., 1923.	Dec., 1923.	March, 1924.	June, 1924.	Sept., 1924.	Dec., 1924.	March, 1925.	June, 1925.	
Sawmilling, Furniture and Woodwork :—										
Sawmilling and Machined Woodwork	12.0	11.4	10.9	10.5	9.0	9.9	9.8	10.5	9.2	
Wood Box and Packing Case Making,	16.5	17.5	14.1	14.6	13.4	14.0	13.4	16.5	13.7	
Furniture Making, Upholstering, &c.	7.1	8.8	7.3	7.9	6.3	7.0	6.1	6.8	5.7	
Other Woodworking .. .. .	13.7	14.0	11.2	10.8	10.4	12.4	10.1	10.5	11.3	
Printing and Paper Trades :—										
Paper and Paper Board Making ..	6.9	8.4	8.6	8.9	7.2	8.6	7.7	7.8	6.7	
Cardboard Boxes, Paper Bags and Stationery	7.4	7.5	6.4	7.4	6.9	6.4	6.4	7.1	6.2	
Wall Paper Making and Paper Staining	5.3	4.8	3.4	6.0	4.5	3.1	3.0	7.5	3.8	
Stationery and Typewriting Requisites (not paper)	4.9	5.3	5.0	5.8	4.6	5.0	6.1	7.2	5.6	
Printing, Publishing and Bookbinding	5.6	5.6	5.1	5.8	5.1	5.0	5.0	6.1	4.9	
Building and Construction of Works :—										
Building .. .. .	12.5	11.8	13.6	10.1	8.2	9.8	11.9	9.5	7.5	
Public Works, Contracting, &c. ..	19.3	18.5	18.9	16.9	15.8	17.4	19.1	18.2	15.5	
Other Manufacturing Industries :—										
Rubber Manufacture .. .. .	10.7	13.2	12.6	10.1	9.9	11.4	12.1	9.7	8.7	
Oilcloth, Linoleum, &c., Manufacture	5.2	5.1	6.2	5.3	8.9	4.5	4.6	4.9	4.1	
Brush and Broom Making .. .. .	10.4	12.2	12.3	8.4	8.8	13.1	11.6	9.4	13.1	
Scientific and Photographic Instrument and Apparatus Manufacture	5.4	5.3	4.6	4.4	4.4	4.5	4.7	5.3	4.2	
Musical Instrument Making .. .. .	5.9	4.8	4.8	8.1	11.7	6.8	5.5	7.8	6.4	

Toys, Games and Sports Requisites Manufacture	12.3	9.9	9.8	11.7	9.9	11.5	11.9	10.4	8.8
Gas, Water and Electricity Supply Industries	7.4	6.8	6.3	5.9	5.7	5.9	6.4	6.5	5.9
Transport and Communication :—									
Railway Service .. .. .	6.0	5.6	5.9	5.3	5.1	5.7	6.9	6.5	5.5
Tramway and Omnibus Service ..	2.9	3.4	3.5	3.3	2.9	2.9	3.5	3.7	3.4
Other Road Transport .. .. .	17.7	16.7	16.2	15.0	14.6	15.3	15.1	15.1	13.2
Shipping Service .. .. .	17.6	18.1	21.1	19.0	16.3	18.6	23.1	20.4	20.0
Canal, River, Dock and Harbour Service	25.7	23.0	22.5	24.1	25.3	27.8	25.1	31.1	30.7
Other Transport and Communication and Storage	21.7	19.1	15.8	17.2	16.1	22.4	15.6	15.1	14.3
Distributive Trades .. .. .	5.8	6.2	6.0	6.9	6.2	6.4	6.5	7.5	6.3
Commercial, Banking, Insurance and Finance	4.4	4.2	4.3	4.5	3.9	3.7	3.6	3.7	3.2
Miscellaneous Trades and Services :—									
National Government .. .. .	11.7	10.5	9.8	9.5	8.6	9.2	8.6	8.7	7.0
Local Government .. .. .	5.8	6.3	6.6	6.3	6.0	7.8	8.9	9.1	7.8
Professional Services .. .. .	4.1	4.2	4.0	4.1	3.8	3.7	3.8	3.9	3.3
Entertainments and Sports .. ..	14.0	12.4	13.6	13.7	12.6	11.7	14.4	13.8	11.5
Hotel, Boarding House, Club Services	10.0	10.8	13.7	13.2	9.7	10.0	14.1	13.2	8.7
Laundries, Dyeing and Dry Cleaning	5.1	5.7	6.3	6.0	5.5	6.4	6.6	6.7	5.2
Other Industries and Services ..	26.6	28.0	28.6	28.6	27.0	25.4	25.9	26.7	23.6
General Rates for Males and Females	11.3	11.7	10.6	9.8	9.3	10.6	10.7	11.1	11.9

**TABLE 12.**  
*Special Analysis of 1 per cent. of Claims current on 24th November, 1924, at all Employment Exchanges  
in Great Britain.*  
**MALES.**

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	Age Groups.										Grand Total. (Males.)
	Juv- en- iles 16 & 17.	Adults.									
		18 and 19.	20 to 24.	25 to 29.	30 to 34.	35 to 44.	45 to 54.	55 to 59.	60 and over.	Total Adults.	
<b>Total Cases Examined (Males)</b>	<b>167</b>	<b>437</b>	<b>1,379</b>	<b>1,093</b>	<b>810</b>	<b>1,544</b>	<b>1,533</b>	<b>689</b>	<b>1,108</b>	<b>8,683</b>	<b>8,850</b>
<i>Physique.</i>											
Good .. .. .	130	299	1,065	786	590	1,112	1,038	416	563	5,869	5,999
Fair .. .. .	30	122	289	281	200	374	436	242	518	2,462	2,492
Poor .. .. .	7	16	25	26	20	58	59	31	117	352	359
<i>Health.</i>											
Good .. .. .	147	374	1,229	886	637	1,178	1,147	485	654	6,590	6,737
Fair .. .. .	19	53	127	184	140	314	319	176	460	1,773	1,793
Poor .. .. .	1	10	23	23	33	52	67	28	84	320	321
<i>Physical Defects.</i>											
None .. .. .	451	389	1,241	901	654	1,276	1,179	538	839	7,017	7,168
Deaf .. .. .	—	5	20	22	19	33	74	47	103	323	323
Bad Eyesight .. .. .	5	28	71	52	48	75	135	63	156	628	633
Lame .. .. .	1	2	6	36	24	48	41	10	35	202	203

STATISTICS.

Amputation ..	4	1	4	15	15	20	21	1	0	29	29
Old Age and Infirmity	—	—	—	—	—	—	—	—	—	—	—
Miscellaneous ..	6	12	37	67	50	82	83	28	32	389	395
<i>Type of Normal Employment.</i>											
Casual Worker	13	50	123	100	178	196	210	90	389	1,016	1,029
Out of Situation	111	398	1,102	848	532	1,133	1,089	304	321	6,567	6,678
Suspended or Stood Off	43	49	154	145	100	215	234	95	108	1,100	1,143
<i>Age on Leaving School of Persons under 30 years.</i>											
Under 14 years	24	94	363	250	—	—	—	—	—	707	781
14 years ..	126	314	942	774	—	—	—	—	—	2,030	2,158
15 years ..	15	15	47	41	—	—	—	—	—	103	118
16 years ..	2	12	17	21	—	—	—	—	—	50	52
17 years ..	—	2	8	5	—	—	—	—	—	15	15
18 years ..	—	—	2	2	—	—	—	—	—	4	4
<i>School Attended of Persons under 30 years.</i>											
Elementary ..	155	413	1,310	1,047	—	—	—	—	—	2,770	2,925
Secondary ..	12	24	69	46	—	—	—	—	—	139	151
<i>Age on Commencing Work of Persons under 30 years.</i>											
Under 14 years	21	85	326	232	—	—	—	—	—	643	664
14 years ..	115	305	936	760	—	—	—	—	—	2,001	2,118
15 years ..	26	28	70	62	—	—	—	—	—	160	188
16 years ..	4	14	32	28	—	—	—	—	—	74	78
17 years ..	1	4	9	7	—	—	—	—	—	20	21
18 years and over	—	1	6	4	—	—	—	—	—	11	11

TABLE 12—continued.  
MALES.

	Age Groups.										Grand Total. (Males.)
	Juv- en- iles 16 & 17.	Adults.									
		18 and 19.	20 to 24.	25 to 29.	30 to 34.	35 to 44.	45 to 54.	55 to 59.	60 and over.	Total Adults.	
<i>Training.</i>											
Apprenticed .. ..	24	62	375	259	207	329	356	174	307	2,069	2,093
Trained .. ..	33	122	291	261	209	396	407	169	292	2,147	2,180
Neither Apprenticed nor Trained	110	253	713	573	394	819	770	346	599	4,467	4,577
<i>Uninsurable Work, 1921-24.</i>											
Nil .. ..	142	411	1,295	999	747	1,439	1,446	665	1,150	8,152	8,294
Part of Period .. ..	25	26	84	94	63	105	87	24	48	531	556
<i>Number of Dependents.</i> (Adults and Children, including persons for whom no Benefit is paid.)											
Nil .. ..	167	404	1,100	511	250	373	415	243	495	3,791	3,958
1 .. ..	—	27	113	159	112	190	351	264	541	1,757	1,757
2 .. ..	—	6	107	198	139	229	226	84	101	1,090	1,090
3 .. ..	—	—	48	148	139	227	191	47	33	833	833
4 .. ..	—	—	10	60	90	183	141	25	17	526	526
5 .. ..	—	—	1	13	49	132	92	9	5	301	301
6 .. ..	—	—	—	3	22	104	61	8	2	200	200
Over 6 .. ..	—	—	—	1	9	106	56	9	4	185	185

<i>Benefit.</i>											
<i>Authorized—</i>											
Standard .. .. .	64	230	703	495	408	770	734	316	422	4,078	4,148
Extended .. .. .	82	175	587	542	366	687	737	349	748	4,191	4,278
<i>Not Authorized—</i>											
Suspended .. .. .	1	3	7	2	—	6	2	—	1	21	22
Disallowed or Disqualified..	3	9	14	11	5	10	12	8	18	87	90
Not yet authorized .. .. .	17	20	68	43	31	71	48	16	9	306	328
<i>Poor Law Relief (Personal and Family).</i>											
Relief Granted .. .. .	5	8	40	74	80	145	66	13	28	454	459
No Relief Granted .. .. .	162	429	1,339	1,019	730	1,399	1,467	676	1,170	8,229	8,391

UNEMPLOYMENT.

TABLE 12—continued.  
FEMALES.

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	Age Groups.										Grand Total. (Females.)
	Juv- en- iles 16 & 17.	Adults.									
		18 and 19.	20 to 24.	25 to 29	30 to 34.	35 to 44.	45 to 54.	55 to 59.	60 and over.	Total Adults.	
<b>Total Cases Examined (Females)</b>	<b>96</b>	<b>265</b>	<b>623</b>	<b>873</b>	<b>207</b>	<b>249</b>	<b>161</b>	<b>32</b>	<b>47</b>	<b>1,957</b>	<b>2,053</b>
<i>Physique.</i>											
Good .. .. .	79	191	467	299	151	176	110	15	20	1,429	1,508
Fair .. .. .	15	67	146	72	51	65	46	16	19	482	497
Poor .. .. .	2	7	10	2	5	8	5	1	8	46	48
<i>Health.</i>											
Good .. .. .	81	224	516	324	170	196	115	21	19	1,585	1,666
Fair .. .. .	11	40	99	42	35	46	39	9	22	332	343
Poor .. .. .	4	1	8	7	2	7	7	2	6	40	44
<i>Physical Defects.</i>											
None .. .. .	83	247	553	338	186	217	124	27	28	1,720	1,803
Deaf .. .. .	1	2	6	4	5	4	5	—	2	28	29
Bad Eyesight ..	7	9	49	21	13	23	24	5	14	158	165
Lame .. .. .	1	1	5	3	2	—	1	—	—	12	13
Amputation .. .	—	—	—	1	—	—	—	—	1	2	2
Old Age and Infirmity ..	—	—	—	—	—	—	—	—	—	—	—
Miscellaneous .. .	4	6	10	6	1	5	7	—	2	37	41

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<i>Type of Normal Employment.</i>											
Casual Worker .. .. .	—	—	6	8	1	5	7	1	2	25	25
Out of Situation .. .. .	64	181	437	275	153	148	103	20	35	1,352	1,416
Suspended or Stood Off .. .	32	84	180	95	58	96	51	11	10	580	612
<i>Age on Leaving School of Persons under 30 years.</i>											
Under 14 years .. .. .	21	54	166	96	—	—	—	—	—	316	337
14 years .. .. .	65	186	421	255	—	—	—	—	—	862	927
15 years .. .. .	6	17	18	16	—	—	—	—	—	51	57
16 years .. .. .	4	5	13	6	—	—	—	—	—	24	28
17 years .. .. .	—	1	3	—	—	—	—	—	—	4	4
18 years .. .. .	—	2	2	—	—	—	—	—	—	4	4
<i>School Attended of Persons under 30 years.</i>											
Elementary .. .. .	87	237	590	356	—	—	—	—	—	1,183	1,270
Secondary .. .. .	9	28	33	17	—	—	—	—	—	78	87
<i>Age on Commencing Work of Persons under 30 years.</i>											
Under 14 years .. .. .	20	39	126	64	—	—	—	—	—	229	249
14 years .. .. .	46	140	310	196	—	—	—	—	—	646	692
15 years .. .. .	17	52	91	41	—	—	—	—	—	184	201
16 years .. .. .	10	22	56	27	—	—	—	—	—	105	115
17 years .. .. .	3	7	20	11	—	—	—	—	—	38	41
18 years and over .. .. .	—	5	20	34	—	—	—	—	—	59	59

TABLE 12—continued.

	Age Groups.										Grand Total. (Females.)
	Juv- en- iles 16 & 17.	Adults.									
		18 and 19.	20 to 24.	25 to 29.	30 to 34.	35 to 44.	45 to 54.	55 to 59.	60 and over.	Total Adults.	
<i>Training.</i>											
Apprenticed .. ..	8	40	71	43	29	20	12	3	2	220	228
Trained .. ..	43	130	346	196	111	144	83	16	25	1,051	1,094
Neither Apprenticed nor Trained	45	95	206	134	67	85	66	13	20	686	781
<i>Uninsurable Work, 1921-24.</i>											
Nil .. ..	75	232	562	350	186	227	142	27	40	1,766	1,841
Part of Period .. ..	21	33	61	23	21	22	19	5	7	191	212
<i>Number of Dependents.</i> (Adults and Children, including persons for whom no Benefit is paid.)											
Nil .. ..	95	260	589	330	172	187	131	28	44	1,741	1,836
1 .. ..	1	4	26	34	20	40	20	4	3	151	152
2 .. ..	—	1	7	8	10	13	5	—	—	44	44
3 .. ..	—	—	1	—	2	5	2	—	—	10	10
4 .. ..	—	—	—	1	3	3	2	—	—	9	9
5 .. ..	—	—	—	—	—	1	1	—	—	2	2
6 .. ..	—	—	—	—	—	—	—	—	—	—	—
Over 6 .. ..	—	—	—	—	—	—	—	—	—	—	—

<i>Benefit.</i>											
<i>Authorized—</i>											
Standard .. .. .	44	179	422	257	133	143	90	13	15	1,252	1,296
Extended .. .. .	41	59	170	98	65	92	65	15	27	591	632
<i>Not Authorized—</i>											
Suspended .. .. .	2	1	2	1	1	—	1	—	1	7	9
Disallowed or Disqualified..	—	2	6	5	2	—	1	—	1	17	17
Not yet authorized .. .. .	9	24	23	12	6	14	4	4	3	90	99
<i>For Law Relief (Personal and Family).</i>											
Relief Granted .. .. .	1	4	3	3	3	2	2	—	2	19	20
No Relief Granted .. .. .	95	261	620	370	204	247	159	32	45	1,938	2,038

UNEMPLOYMENT.

TABLE 13.

## TRADE BOARD RATES (JUNE, 1925).

General minimum time rates for the lowest class of adult workers. (Except where otherwise shown the rates are operative at the age of 18 in the case of females, and at 21 in the case of males.)

Date of Establishment of Board.	Trade.	Female Workers.	Male Workers.
		Per Hour. <i>d.</i>	Per Hour. <i>s. d.</i>
1910	*Chain† .. .. .	6½	1 4½
"	Lace† .. .. .	6½	—
"	*Paper Box .. .. .	7½	1 0½
1914	Shirtmaking .. .. .	6½	1 2 (d)
"	Sugar Confectionery, &c. .. .	6½	1 0 (b)
"	Tin Box .. .. .	7½	1 1
"	Hollow-ware .. .. .	6½	0 11½
1919	Tobacco .. .. .	9½ (a)	1 3½
"	Laundry :—		
	(1) Cornwall and North of Scotland .. .. .	6½	1 1½
	(2) Rest of Great Britain .. .. .	7	1 1½
"	*Boot and Shoe Repairing .. .	10½ (a)	1 3
"	*Paper Bag .. .. .	7½	1 1½
"	Corset .. .. .	7	1 1 (d)
"	*Brush and Broom .. .. .	6½ (a)	0 11½
"	Fur .. .. .	8½	1 2
"	Rope, Twine and Net .. .. .	6½	0 10
"	Jute .. .. .	6½	0 9½
†1919	†Tailoring :—		
	(1) Ready-made and Wholesale Bespoke .. .. .	6½	0 10½ (d)
	(2) Retail Bespoke .. .. .	7½	1 0
"	Women's Clothing :—		
"	Wholesale Mantle and Costume Dressmaking and Women's Light Clothing :—	6½	0 10½ (d)
	England and Wales :—		
	(1) Retail Bespoke Section .. .	6½	} 1 0 (d)
	(2) Other Sections .. .. .	7½ (c)	
	Scotland :—	7	
	(1) Retail Branch .. .. .	7	} 1 2 (d)
	(2) Other Branches .. .. .	6½	
"	*Coffin Furniture and Cerement Making :—		
	(1) Coffin Furniture Section .. .	6½ (a)	1 2½
	(2) Cerement Making Section .. .	7½ (b)	—

For Notes see next page.

NEGOTIATING MACHINERY.

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TRADE BOARD RATES (JUNE, 1925)—*continued.*

Date of establishment of Board.	Trade.	Female Workers.	Male Workers.
		Per Hour.	Per Hour.
1920	Aerated Water (England and Wales)	6½	1 0½
"	Aerated Water (Scotland) :—		
	(1) Orkney and Shetlands	5½	0 11½
	(2) Rest of Scotland	6½	1 0½
"	Hat, Cap and Millinery (England and Wales)	7	1 1 (d)
"	Hat, Cap and Millinery (Scotland) :—		
	(1) Wholesale Hat and Cap Branch	7½	1 2 (d)
	(2) Other Branches	7	1 2 (d)
"	*Perambulators, &c.	7½ (c)	1 0
"	Flax and Hemp	7 (a)	0 10½
"	Button-making	6½	1 1½
"	Stamped or Pressed Metals	6½	0 11
"	Pin, Hook and Eye	6½ (a)	0 10½
"	Hair, Bass and Fibre	6½	0 11½
"	Milk Distributive :—		
	(1) England and Wales	6½	0 10½
		7½ (a)	1 1
	(2) Scotland	8½ (c)	1 2 (c)
		6½ (a)	0 11½
"	Linen and Cotton Handkerchiefs, &c.	6½	1 0
"	Grocery and Provisions	—	—
"	Toy	6½ (a)	1 0½
"	General Waste Reclamation	6½	0 11
"	Cotton Waste Reclamation :—		
	(1) England and Wales	7	1 0
	(2) Scotland	6½	1 0
"	Made-up Textiles	6½	0 10½
1921	Ostrich Feathers, &c.	7	1 0 (d)
"	Boot and Floor Polish	7½	1 1½
"	Sack and Bag	6½	0 11½

Note :—(a) At 21 years of age.

(b) At 24 years of age.

(c) According to population.

(d) At 22 years of age.

\* These rates are dependent on the "Cost of Living" figure and fluctuate accordingly.

† The minimum rates in the Chain Trade and the Lace Finishing Trade are not fixed by reference to sex. The rates shown under the column "Female Workers" are those applicable to work wholly or mainly performed by women, and the rates shown under the column "Male Workers" are those applicable to work wholly or mainly performed by men.

‡ The Acts had been previously applied (in 1909) to a portion of this trade.

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