REPORTS AND ENQUIRIES

Factory Inspection in Great Britain, 1929-1933

In the earlier volumes of the Review *the annual reports of the factory inspectors in a large number of countries were more or less regularly analysed in some detail. By degrees, however, the number of countries for which reports were available increased so much that it became impossible to deal with them adequately in the space that could reasonably be devoted to the subject, and in addition the reports for many countries showed little change from one year to another. It was therefore decided to discontinue these analyses for the time being. The reports, however, contain information of considerable value on the extent and the effectiveness of the application of labour legislation in the different countries. It has therefore seemed useful to resume these analyses, but in a new form, consisting, for each country dealt with, in a summary of the reports for a series of several years. Besides avoiding much inevitable repetition, this treatment of the reports has the advantage of not only showing the conditions at a given moment, but also giving an idea of the development of labour legislation and conditions of employment in the country under review over a certain period. A survey of the last five reports available for Great Britain, covering the period 1929-1933, is given below; similar surveys for other countries will be published in subsequent numbers of the* Review.

The following survey of factory inspection in Great Britain during the years 1929-1933 is based on the information supplied in the Annual Reports of the Chief Inspector of Factories and Workshops for the years in question.

The main duty of the Home Office Factory Inspectorate has been defined as " the enforcement of the provisions of the Factory Acts and the Regulations and Orders made thereunder. These provisions relate chiefly to the health, safety and welfare of workers employed in factories and workshops, including the hours of work of women and young persons, but they deal also with other matters, such as the particulars supplied to piece workers in textile and other trades to enable them to compute the wages to which they are entitled. Certain provisions also apply to docks, warehouses and other classes of premises and to building operations where mechanical power is used. The duties of the Inspectorate also include the enforcement of the Truck Acts [1] in factories and workshops, and the enforcement

[1] Legislation for the protection of workers against various abuses in connection with methods of wage payment.

of the Lead Paint (Protection against Poisoning) Act, 1926, and the regulations made under that Act for the protection of persons employed in painting buildings against the risk of poisoning from lead paint." [1]

From the point of view of the International Labour Organisation it may be noted that the duties thus defined cover the enforcement of the following International Labour Conventions ratified by Great Britain : the Night Work (Women) Convention, 1919, the Minimum Age (Industry) Convention, 1919, and the Night Work (Young Persons) Convention, 1919. Further, the Lead Paint (Protection against Poisoning) Act, 1926, embodies many of the provisions of the White Lead (Painting) Convention, 1921. The enforcement of the provisions of the remaining ratified Conventions falls within the competence of other inspectorates. [2]

The Industrial Background

The five years under survey have witnessed fairly considerable modifications and displacements in the general industrial situation in Great Britain. As in other countries, 1929 was a peak year. The employment figures, as shown by the unemployment insurance statistics, are as follows :

Year	Number employed	Index
1929	10,223,000	100
1930	9,809,000	96.0
1931	9,437,000	92.3
1932	9,367,000	91.7
1933	9,683,000	94.8

These figures do not, of course, relate directly to the establishments covered by the Home Office factory inspection system. No separate statistics are published for the workers employed solely in those establishments ; but the above general figures are no doubt sufficiently representative.

In the autumn of 1931, it will be remembered, Great Britain abandoned the gold standard ; and shortly afterwards free trade was abandoned in favour of a system of protective tariffs.

In 1929 the situation recorded in the Chief Inspector's report for that year was that many leading trades were in difficulties, but that other trades had flourished and had tended to restore the balance of employment, particularly in the South of England (motor cars, building, wireless apparatus, gramophones, electrical engineering, some branches of chemical work, furniture, artificial silk, paper, sugar refining). New works were springing up round London, on sites adjacent to the arterial roads.

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[1] *Report of the Departmental Committee on the Factory Inspectorate, 1930.* Other branches of labour inspection are carried out by the Trade Boards Inspectors (Ministry of Labour) for the enforcement of the minimum wage provisions laid down for certain trades ; the Ministry of Health Inspectors for the enforcement of provisions relating to social insurance contributions ; the Board of Trade's Mercantile Marine Superintendents ; and the Board of Trade's Inspectors of Mines.

[2] See preceding footnote.

In 1930 the depression was more acute, the worst sufferers probably being textile yarns and fabrics, iron and steel, engineering and shipbuilding. There was a lack of orders even in the South of England, though industries were still developing in and round London. Many of the trades which suffered least were " luxury " trades : motor cars, motor bicycles, wireless apparatus, gramophones, tobacco, chocolates, beer.

In 1931 employment in industry generally is described as very bad. It is recorded, however, that " while in many areas the depression was far more acute than in 1930 and affected the southern as well as the northern part of the Kingdom, the improvement which took place in the late autumn "—i.e. after the departure from the gold standard— " covered a wide range of industries and was not confined to any one area. " Heavy industries (iron and steel, shipbuilding) again suffered most acutely. In the textile areas the depression was also acute until the departure from the gold standard and the imposition of tariffs caused an upward movement (particularly in woollens and worsteds). Further industrial development was noted in the South, particularly in the new industrial areas of Greater London : manufacture of light aeroplanes, gliders, wireless apparatus, metal window casements, Diesel oil engines for fitting to existing lorries and buses, industrial paper, glass silk. A considerable development is also recorded in vegetable and fruit canning and in the film industry. The report records increased mechanisation and use of electricity, and notes that overhead shafting was largely being replaced by individual drives. Foreign firms were beginning to acquire manufacturing premises, owing to the imposition of protective tariffs.

In 1932 shipbuilding practically throughout the country had the worst year on record ; the depression was still acute in iron and steel ; whilst engineering (particularly the heavier classes) showed little signs of recovery. The expansion in other industries that took place at the end of 1931 had not been maintained, and during most of 1932 there was a relapse to the previous level of depression, though a distinct improvement was noted towards the end of the year. Remarkable upward movements are recorded in hosiery and the spinning of the yarn used in that branch of manufacture ; the canning of fruit and vegetables ; the film industry ; beet sugar production ; and the electricity supply industry. There was once again further development in the South, particularly in the London area ; the report states that " the extension of the populated area round London has been accompanied by an increase in the number of local factories supplying the usual needs of residential districts, and at the same time there has been a large expansion in industrial activity on the various trading estates, now such a feature of this part of the country, and along certain arterial roads. These factories with some notable exceptions are of moderate size and usually manufacture specialities of miscellaneous types. " The manufacture of articles previously imported from abroad increased, and 215 foreign-owned factories, employing nearly 10,000 workers, were established in the course of the year.

The report for 1933 notes a continuance in the southward move

of industry, accompanied by a tendency to increase the size of the manufacturing unit, particularly in such industries as the manufacture of gramophones and wireless sets, motors and cycles and their auxiliary trades. Large new industrial areas were being developed near London, particularly in proximity to certain arterial roads. Renewed industrial activity in the North is also recorded. Old blast furnaces were gradually being replaced by others of more modern design, and additional blast furnaces and steel furnaces were being started. There was little improvement in the Lancashire cotton industry, but a marked improvement in the clothing trade is recorded. There was an increased use of electricity in factories (in over 90 per cent. of the new factories established in 1933 electricity was the sole form of power used [1]).

Statistics

The work of the factory inspectors during these five years, and to some extent its results, may be illustrated by a few statistics.

Item	Year covered by report				
	1929	1930	1931	1932	1933
Number of factories	152,453	154,102	155,354	157,891	160,185
Number of workshops	108,323	103,371	95,714	90,859	86,851
Number of inspectors	206	229	247	246	245
Effective visits to factories	187,506	193,550	225,257	227,492	223,964
Effective visits to workshops	82,105	73,732	82,188	69,272	60,175
Prosecutions	2,119	2,051	1,563	1,582	2,004
Convictions	1,908	1,700	1,314	1,316	1,692
Reported accidents :					
Fatal	982	899	755	602	688
Non-fatal	160,287	143,859	112,494	105,562	112,572
Cases of poisoning	593	625	459	438	423
Deaths from poisoning	87	74	74	68	61
Complaints received	4,369	4,094	4,130	3,916	3,559
Complaints substantiated on enquiry	1,951	1,801	1,845	1,713	1,698
Expenditure	£159,722	£166,313	£172,807	£174,164	£173,768

"Rationalisation" and Labour Conditions

The figures given above for the numbers of factories and workshops liable to inspection show a constant though slight increase in the number of factories along with a far more rapid decrease in the number of workshops. (Generally speaking, the criterion of a "factory" consists in the use of power-driven machinery.) These figures illustrate the increasing use of mechanical power, and also the tendency to increase the size of the manufacturing unit.

[1] Board of Trade : *Survey of Industrial Development*, 1933.

The report for 1933 affirms that " the new factories are good on the whole from the standpoint of Factory Act administration. Single storied buildings for the most part, they are well constructed with adequate air space, good heating and ventilation, excellent lighting, both natural and artificial, and up-to-date sanitary arrangements. An absence of hoists and overhead shafting makes for safety and means of escape in case of fire present few difficulties. While the actual conditions of work are better than ever, the concentration of factories in the new industrial areas is associated with certain disadvantages. It involves, for instance, long distances to be travelled daily by many of the workers, also these new factories though grouped on the same site are isolated units industrially, and their occupiers have no common bonds and no interest in the localities in which the majority of their employees reside. "

Hours of Work

During the whole of the period under review the normal working week of 47 or 48 hours appears to have been of general application. Indeed, it is affirmed that the 48-hour week has now established itself as a normal maximum to such an extent that employment in excess of that limit is often erroneously regarded as illegal, especially in the case of young persons, and complaints are received by the inspectors concerning hours of work which, though long, are not illegal.

Towards the end of 1931 the departure from the gold standard is stated to have caused a rapid change in the working hours in woollen and worsted factories and in cotton doubling. Most of the mills in these branches of the textile industry reverted to the full legal period of employment of 55½ hours per week for women and young persons, while in some cases the men in certain departments worked much longer hours. The introduction of these longer hours aroused some discontent among the workers. A tendency to work longer hours in various trades is also noted in the report for 1933.

In the newer industrial areas of the South, and especially round London, it is stated that " a surprisingly large proportion of the workpeople travel long distances to their work. Two hours daily spent in travelling is not at all uncommon. This is in part due to the fact that many firms who have removed from London to the country still retain numbers of their original workers. In such cases employment to the full legal limits may involve an absence from home of 14 hours daily. " Thus " hours up to legal limits if continued for any long period may become definitely exhausting. "

The Five-Day Week

Down to 1931 the reports refer to the continually increasing popularity of the five-day week. It is noted that " while no industry as a whole has adopted the method, nearly every great industry in the country is represented by individual firms. Location of works appears to be a factor of some importance in this connection, as small groups

of works in various industries in certain localities and also groups of works in a localised industry such as the furniture trade in High Wycombe are concerned." The latter observation is in harmony with the recorded fact that the five-day week "is more prevalent in and around London and in the southern part of the Kingdom than in Scotland and the North and is also somewhat more prevalent in what may be described as the more modern industries." In other words, the system is especially popular in areas where workers travel long distances to their work.

Particulars are given in the report for 1930 relating to 704 firms, occupying 744 works, and employing 91,679 workers, which have adopted the five-day week. In 25 per cent. of these works the hours are stated to be in the neighbourhood of 45 (or an average 9-hour day), while in 64 per cent. the hours are from 47 to 48. In 48 works (including 43 in which men only are employed and work 56 hours a week) the hours exceed 48, and in 25 works the hours are less than 45, including 5 works on a 40-hour week. Thus it would appear that in the large majority of cases the change in the system of working has been brought about without any interference with the normal total of 47 or 48 hours a week. The Saturday hours are sometimes distributed equally over the other days of the week, but more generally the extra hours are added to Tuesday, Wednesday, and Thursday, these being recognised as the best days for output. It is stated that "production appears to have increased where the system has been given a fair trial", and that "there is a very general consensus of opinion as to the advantages of the system both to employers and employed."

The report for 1931 records that at least 100 firms have been found working the five-day week in addition to the 704 mentioned in the previous report.

Employment of Protected Persons

During the worst years of the depression the reports record a "surprising amount of illegal employment". It is, however, explained that such illegal employment is actually due to the depression, "as manufacturers cannot afford to accumulate large stocks and consequently when a large order is received and is due for delivery in a specified time, it has to be rushed through. In such cases it is thought worth while to take the risk of employing protected persons illegally on week days or on Sundays."

The recrudescence of industrial activity in 1933 appears, it is stated, to have been accompanied by an increase of illegal employment. "There has been a marked increase in the number of cases in which it has been necessary to prosecute for offences under this head and these have included several instances of disgracefully long hours worked by young persons." The penalties inflicted on conviction vary, being in some cases severe and in others of a more or less nominal character.

As regards the application of the three International Labour Con-

ventions of 1919 ratified by Great Britain, an increase in the number of prosecutions for offences against their provisions is noted in 1933 as compared with 1932. The figures are as follows :

Subject of Convention	Number of firms prosecuted	
	1932	1933
Minimum age	0	2
Night work of young persons	21	38
Night work of women	9	15

The report for 1933 expresses the hope that this increase will prove to be only a temporary phenomenon, but adds that " special attention is being given this year to the detection of illegal employment. "

Safety

This is not the place for a technical analysis of the tendencies in respect of industrial safety revealed in the factory inspectors' reports.[1] Attention may, however, be drawn to the noteworthy decline in the accident figures from 1929 to 1932, followed by a marked increase from 1932 to 1933 in the number of accidents both fatal and non-fatal. The 1932 report, in commenting on the reduction in that year as compared with 1931, observes that " the continued depression in our industries, particularly in those which are usually responsible for the largest number of accidents, is probably the main cause for the reduction ; but there is clear indication in the reports received that the growth of the Safety First movement is also having its effect in reducing accidents in many works where safety organisations have been established and are maintaining a keen active interest in the work of accident prevention. "

The report for 1933, in drawing attention to the increased accident figures for that year as compared with 1932, observes that " the improvement in trade conditions in certain industries, while most welcome in providing an increase in the number of workers employed, is unfortunately also responsible for the increase in accidents. Probably, however, the rise in the number of accidents is not wholly due to more extensive employment, but also to other and altogether exceptional factors operating at the present time. Workers are returning to employment often after long periods of enforced unemployment. Many of them are suffering from lack of nourishment, and physically and mentally are less alert and more liable to mishap than in normal times. Again, there is evidence that on restarting work after a long spell of idleness some workers tend to over-exert their strength and

[1] The reports are analysed regularly from this standpoint in the *Industrial Safety Survey* published by the International Labour Office.

energy, while others take some time to get accustomed to working conditions again. All these factors have to be taken into account, although it is also true that machinery is more efficiently fenced, plant of all kinds more safely constructed, welfare and working conditions of a much higher standard and more precautions are taken by employers and workers alike than at any time in our industrial history. "

Health

An analysis of the technical information on medical questions embodied in the reports lies outside the scope of the present survey. The reports of the Senior Medical Inspector of Factories and his assistants, however, contain some interesting observations of a general character. Thus, it is recorded that instances of workers, particularly men, affected by conditions of employment following a long period of unemployment have been brought to notice. The Senior Medical Inspector observes in this connection that " it is reasonable to presume that a man starting heavy manual labour after a period of unemployment is at a disadvantage and consequently injuries, especially to the skin of the hand unaccustomed to rough usage, are likely to occur ; such in fact has been found to be the case. " Similarly, in a case where a complaint was received that working conditions in a jute mill were such as to prejudice the health of the operatives, it was found that it was among the night-shift workers that the incidence of sickness was particularly high ; and further enquiry showed that the night shift had not long been in operation at this works and that night work was not common in the town, so that workers of inferior physique and those who had been longest out of employment tended to be found in the night shift, where they stayed till they could secure more attractive occupation at day work.

It may be added that the constant decline in the number of cases of poisoning, as well as in the number of deaths from poisoning, is no doubt largely due to reduced industrial activity ; though the decline, it will be observed, continued in 1933, notwithstanding the industrial revival of that year.

The effect of repetition processes on sickness records is emphasised : " vastly more days are lost from vague ill-defined, but no doubt very real, disability due to *ennui* than from all the recognised industrial diseases together. " " The uninterested worker ", it is affirmed, " is an industrial invalid. Interest in work leads to industrial good health. " These observations appear, however, to apply rather to male than to female workers. Dr. Sibyl Horner, in the course of a short review of the effect on women of industrial work (quoted in the report for 1933), observes that " women (including girls) are, as is well known, much employed in repetition processes and in operating and attending the lighter machine processes. Such employment illustrates one of the greatest attributes of the female sex—adaptability. This, in brief, is the solution of the riddle which has provoked so much interest in scientific minds, namely, why is it that women alone of the industrial groups can bring themselves to the daily performance of monotonous

work without losing, what one may call for want of a better name, their ' interest in life ' ? They do it by a nice balance between attention and detachment—which is, in effect, a prescription for the prevention of boredom. . . . I have seen women bored with monotonous work, but not often. . . . Boys are not so good at maintaining this nicety of balance. " Her general conclusion as to the effects of industrial life on women is that they are " good, and getting better ".

Truck

In the report for 1921 it had been stated that the system of fining for minor offences and of deductions for damaged work, which was regulated by the Truck Act of 1896, seemed to be dying out. It is, however, recorded that the system seemed to be more in evidence during 1933, that the requirements of the Truck Acts were not always observed, and that some serious cases of real hardship were dealt with by the inspectors during the year.

Development of the Inspectorate

In 1930 a Departmental Committee appointed to consider the desirability of adding to the existing factory inspectorate and of modifying its organisation issued its report. The following are among the chief recommendations of the Committee :

(1) The standard of inspection should be such that the more important factories and workshops would be visited at least once a year, and the less important works (i.e. works in which only a small number of persons are employed, no dangerous or injurious process is carried on, and the inspector has no reason to feel that an annual visit is required) at least once in every two years ; that every works would be thoroughly inspected within an average period of four years ; that quarterly visits would be paid to places covered by special Regulations ; that frequent visits would be made to all large docks ; that large buildings in course of construction would be visited as early as possible and as frequently as may be necessary ; that warehouses would be visited not less than once in five years.

(2) To achieve this standard, the local staff of 180 inspectors should be increased by approximately one-third.

(3) The proportion of local women inspectors should be increased to 30 per cent.

(4) The grading and duties of men and women inspectors should be, in principle, identical.

(5) There should be eight medical inspectors, twelve electrical inspectors, and eleven engineering inspectors, and the clerical staff should also be increased.

The above recommendations were generally accepted, and steps were taken to reorganise the inspectorate accordingly.

In 1932 Sir Gerald Bellhouse, the Chief Inspector, retired, and was succeeded by Mr. D. R. Wilson. In his last report (for 1931) the retiring Chief Inspector notes the following changes and developments as having taken place during his ten years' tenure of office : (1) the progress of the Safety First movement ; (2) the placing of men and women

inspectors on an identical footing; (3) the increase in the technical staff of the inspectorate; (4) the progress in the study of industrial disease; and (5) the increasingly valuable services rendered by the Home Office Industrial Museum.

Future Developments Foreshadowed

In 1933 the hundredth anniversary of the appointment of the first Government Inspectors of Factories was celebrated, and the report published in that year includes a review of the years 1833-1932. In presenting this review the Chief Inspector takes the opportunity of drawing attention to the continued existence (notwithstanding the effective and generally satisfactory application of the existing Factory Acts) of certain anomalies which will call for consideration in drafting future legislation. "For example," he says, "buildings in course of construction are subject to certain provisions of the Acts but not buildings in course of demolition, buildings above ground but not excavations or engineering works below ground level, and ships under repair in dry docks but not ships under repair in wet docks. Even as regards buildings under construction the Acts only apply where and while mechanical power is used. Again, certain provisions, already contained in some foreign industrial codes, are wanting; there is, for example, no general requirement for efficient lighting in factories. Lastly, the provisions in the Acts dealing with hours of employment are in my submission no longer in consonance with modern practice and modern tendencies. On the one hand, they permit hours of work longer than those now usual in industry; on the other hand, they require rigid adherence to specified time tables and withhold the greater elasticity in arrangement of working hours which can now be justifiably claimed. In the dairy industry and in the canning of vegetables the strict enforcement of the Act has been realised to be so oppressive, that rigid compliance with legal requirements has been found impracticable."

Recent Family Budget Enquiries:

Expenditure of Working-Class Families of Merseyside, England, 1929-1931

Official family budget enquiries have not been undertaken in Great Britain since the war, the last enquiries relating to 1904 and 1918. Conditions of living have obviously changed considerably since then, and every new contribution to the knowledge of the standard of living of English workers is therefore greeted with keen interest. In a recent work, *The Social Survey of Merseyside* [1], edited by Prof. D. L.

[1] Liverpool, University Press, 1934. For further details see below under "Book Notes".