

NATURE

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HEALTH IN INDUSTRY

AMONG the many excellent reports which have come from the Factory Department it would be difficult to find one more deserving of praise than the annual report of the Chief Inspector for the year 1941, which has recently been issued. Stripped of much of the statistical details which accompanied the reports issued in peace-time, the Chief Inspector gives a lucid and admirably balanced picture of some of the most important matters which have affected efficient production in Great Britain. This is characteristic both of the Chief Inspector's introductory survey and also of the reports on health, hours of employment and canteens with which it is supplemented. The report is *prima facie* evidence of the excellent quality of the factory inspectors in Great Britain; one need look no further to understand the reason of their success.

The work of the inspectors during the year was again largely taken up with special war duties consequent on the change-over in our industrial machine to war production, and the efforts of the Factory Department have been directed towards producing the maximum. Experience of this and the War of 1914-18 has convinced the Department that if the maximum production is to be achieved, the general requirements of the Factories Act must be observed and that the prevention of accidents, proper ventilation, heating and other physical conditions and reasonable hours of work are essential to a sustained war effort. It is disappointing, therefore, to find that in spite of all the educational work which has been undertaken, and repeated observations in the reports, for example, of the Select Committee on National Expenditure, much time has to be spent in convincing even other Government Departments that this is so. The extra output obtained from long hours of work after Dunkirk is often quoted to the contrary. As the Chief Inspector points out, however, the real answer is that reasonable hours of work give the best steady output, and production is a matter of organization on these lines, lines which will in no way prevent workers from making an extraordinary effort for a short period to meet some exceptional emergency.

The report refers to the increased attention given to the adoption of a proper personnel management department in the larger works, where considerable progress has been made, progress which is not to be measured by the number of personnel managers or welfare officers in industry. Good personnel management is not simply a matter of appointing special officers, and it can often be achieved without making any addition to the managerial staff. The managerial organization may well vary from one factory to another; the spirit underlying it is the all-important factor, and the report rightly points out that however technically efficient a personnel manager may be in the administration of his department, he can only reflect the outlook of his firm on personnel matters. If that outlook is not in general harmony with the modern conception of the relations between management and workers, the most efficient personnel

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department is bound to fail in its main purpose. The Chief Inspector goes so far as to insist that while there is much conservatism against the system among managers and foremen, he is convinced that the main trouble lies in the 'board room'; unless there is a right attitude of mind there the system will not be a success in the works affected.

This is a serious and damaging admission, and scientific workers who occupy positions of responsibility in industry should do whatever they can to rectify this state of affairs within their own sphere. It might have a vital bearing on the handling of the difficult problem of absenteeism; as the report points out, the special war-time problems in connexion with billeting, transport, shopping and canteens make it impossible for all the work involved to be handled by managers and foremen if the latter are to give the time they should to production. Moreover, to hand over such problems to a department trained to deal with them has a great advantage in the opportunity it provides of giving genuine help and sympathy to the worker who is in trouble, and in particular to the new workers entering the factory. It is to be hoped that the Chief Inspector's words will not fall on deaf ears.

In this connexion it is interesting to note that the Chief Inspector comments that the most outstanding achievement of the year in this direction has been the progress made in the provision of canteens for the feeding of industrial workers. A remarkable contribution has already been made in this respect to the total of communal feeding in Great Britain since the outbreak of war. A special section of the report devoted to this subject gives an interesting review of the way in which particular problems have been met and of the use made, for example, of the British Restaurants. The managing and staffing of such canteens have presented problems of their own, and a very encouraging feature has been the appreciation shown by most canteen managers of the importance of their contribution to the general welfare of the workers and the degree to which they have welcomed any effort to increase their knowledge and skill. The stage has now arrived, moreover, when the greater part of the work of this department relates to the running of the canteens, helping to see that the meals are of the right quality and nutritionally sound, and that from the point of view of health and economy the very best use is being made of the available food-stuffs. This need appears to be appreciated on all sides, and scientific work is being started in several directions.

The grave increase in the number of reportable accidents gives special interest to the observations of the Chief Inspector on this point. The main increase is in accidents to adult women, which is a sign that during this year not only have women taken a greater part in the work of making munitions but also their share of the dangerous processes in these industries. Taking into account the increase in hours and in the period of exposure to risks in the main munition industries, it is suggested that the 15 per cent increase is due to this extra time of exposure to risk. The question whether women are

more liable to accidents than men cannot be inferred from the tables given. Women are more liable to certain accidents such as those due to the catching of loose hair or loose clothing, but apart from such factors there is no evidence that in general women are more prone to accidents. The general impression of inspectors is the reverse; women, after the period of special liability to cuts and bruises, are tidier, for work within their strength, and therefore safer workers than most men, while girls are not so foolhardy as boys of similar age. The gross total of accidents, however, is so great that every step possible should be taken to reduce them.

It is generally accepted that one cause of the increasing number of accidents is the pressure of war-work and the fact that this work is so largely carried out by inexperienced workers. The heads of the supervisory staff are heavily overworked and have not time to train the new labour in the best and therefore the safest methods of working. Moreover, the workers themselves are more inclined to take the risk, and some of them in fact regard it as a necessary part of the war effort. While, therefore, it may be essential that the inspectors should themselves devote more of their time to the investigation of accidents and the giving of advice concerning safety, there can be no two opinions as to the importance for our war effort of taking every possible step to eliminate these causes both of lost production and of human suffering. Special stress is laid upon the works safety officers and the importance of the part to be played by managements, foremen and operatives. The report emphasizes that a safety officer will never be really effective until he is given a status at least equal to that of the responsible departmental manager. Production committees could turn their attention with advantage to such questions as the prevention of accidents, and a return to the pre-war standard of safety in the best firms.

The importance of educational work in this matter of preventing accidents cannot be overstressed, but it is clear from observations throughout the report on such matters as ventilation and general conditions, lighting and health, that this is true in very many branches of the work of the Factory Department. The Chief Medical Inspector, for example, notes the importance of the proper care of the skin and effective cleanliness in preventing dermatitis, care which can only be taken by the workers. To secure this essential co-operation here and elsewhere is largely a matter of a sympathetic approach, a wise presentation of the facts and a real understanding of the point of view and the position of the workers. There can be no question that if management generally was permeated with the understanding and balance which are evident throughout this report, notably in some of its comments on the problem of absenteeism, many of the problems which now present such acute difficulty would be reduced to more manageable dimensions, if they would not entirely disappear, with advantage not merely to the efficiency and output of the war effort but also to the health and general well-being of the workers of Great Britain. At the same time, the somewhat startling observations on

the failure of the Supply Departments to deal adequately with the black-out problem and their disregard of the ventilation difficulties that arise shows that Government Departments themselves are not free from fault. It would appear that here is yet another field in which lack of scientific knowledge is proving detrimental to the war effort. The Chief Inspector's observations should receive careful consideration by individual scientific men in a position to take action, and if necessary by their representative associations.

RELIGIOUS INSTRUCTION IN THE SCHOOLS

THE rise and spread of popular education in Great Britain during last century naturally came about in close connexion with religious bodies. For reasons that lay far back in history, the established Church regarded itself as responsible for any education that might be given to the common people. This claim was disputed by the Dissenters, so that when in 1833 the State definitely stepped in with its little building grant of £20,000 a year, both parties had to be recognized. The general direction in which the wind of progress blew at that time is indicated by the fact that the same Parliament in the same year granted £30,000 for the improvement of the royal stables. Still, a beginning was made in State intervention in education. With that beginning, however, there began also the 'religious difficulty' which has dogged the footsteps of educational reformers ever since, and which, as is plainly to be seen, is with us to this day. That difficulty may be envisaged as a difference between Church and Chapel, or as a difference between definite doctrinal instruction and 'simple Bible teaching', or as the question whether Christian education should mean the inculcation of the Christian ethic or Christian doctrine or both.

Another legacy from the nineteenth century is the so-called conflict between religion and science, about which books were written and arguments warmly propounded in Victorian times. This conflict, which has close affinity with the religious difficulty in the schools, is beginning in our day to look more like a reconciliation than a dispute, partly because scientific method is being applied to religious problems, and partly because the inapplicability of strict scientific method to questions of belief and faith is more widely admitted.

This brings us to the point of asking what is the attitude of men of science at the present time towards religion in education. There is no simple answer to that question. It is probably true to say that men of science differ as much in opinion as any other class of intelligent people. For, as Pascal said long ago, "the heart has its reasons, of which reason itself knows nothing". The matter may also perhaps be put in terms of common sense. T. H. Huxley described science as nothing but trained and organized common sense, but in doing so he limited the meaning of common sense. Wendell Holmes called science a first-rate piece of furniture for a man's upper chamber,

if he has common sense on the ground floor. In any event the deliverances of common sense are not so constant and uniform as the deliverances of scientific method. Men of science can be found both within and outside the ranks of professed rationalists.

Since, however, science is the sworn foe of ignorance, besides being, as Adam Smith remarked, the great antidote to the poison of superstition, the man of science as such may be expected to make certain demands upon the advocates of religious instruction in the schools. He will be apt to demand that the results of genuine and unprejudiced scientific investigation shall be respected and accepted wherever scientific method is applicable. In the matter of Biblical criticism, for example, his sympathies will be with the modernists, who apply to the Bible precisely the same methods of research as are applied to other ancient literature, these methods being strictly scientific in the sense that reason alone is employed without the intrusion of feeling. It is scarcely necessary to add that the main conclusions, at any rate of the less drastic critics, have by this time found their way even into the junior school, where the teachers, unlike their grandparents, are not troubled about the literal inerrancy of the stories of creation and Noah's flood. Recently, the assured results of New Testament criticism have also found their way into school editions, one of the best commentators remarking that "the truest reverence is not unintelligent acquiescence, but sound criticism". As for the creeds, the man of science, though he may have reasons of the heart for attending church services, cannot but feel uncomfortable when he hears phrases recited just because they are old, though both parson and people take them with all manner of mental reservations. That being so, he can scarcely regard them as suitable material for child education.

The modern study of child nature is certainly pursued on strictly scientific lines, by a goodly array of eminent representatives of science, as the literature of the subject will show. Whether or not the subject of religious education has received special investigation, it is safe to say that doctrinal instruction in religion for the young child is quite out of keeping with the general character of their findings. This point has been urged forcibly by Dr. David, Bishop of Liverpool, who, by the way, is an old teacher, and in this matter surely has the common sense of the teaching profession on his side. He recognizes the child, not the subject-matter, as the real centre of gravity in modern education, and he contends that formulated doctrine is not for children, at any rate at the pre-adolescent stage. At that stage, he declares, the issue between simple Bible teaching and definite or doctrinal instruction is no longer a live issue. The latter may be added at a later stage, but for the younger children the learning of a catechism can only amount to a species of psittacism, a parrot-like repetition of words without much meaning. This position, based on scientific research, has an obvious bearing upon the teaching of religion at the junior stage.

Another field of scientific inquiry relevant in the present connexion is that of comparative religion,