In 1938 the author made a survey of the adolescent "citizens" in the country, on behalf of King George's Jubilee Trust. This Penguin reprints in shortened form the results of that survey, as well as to certain factual developments since war broke out.

In 1937 there were approximately 3½ million boys and girls in the age-group 14–18. It was then predicted that a falling birth rate would reduce this by one-fifth in 10 years, and by one-third, or over ½ million, in 20 years. Had it not been for the war the school-leaving age would have been raised in September, 1939, from 14 to 15. In January, 1941, the President of the Board of Education declared that he accepted the principle of raising it eventually to 16. Only thus can we adequately educate the youth of Great Britain.

Day Continuation Schools, with compulsory part-time attendance up to 18 for those not full-time at school, is another requisite. Attendance must take place in the employer's time in the case of those at work, and not during leisure hours.

On leaving school at present the usual procedure is for the boy and girl to seek work. This is an immense event for a lad. The work is likely to be much harder than at school, but it is a worth-while price for what seems to be freedom. To be able to buy cigarettes and spilt, and to cheek the foreman (at least once). The problem is to find the right job. It can be met by opening up the blind alleys, by adequate training methods, and by proper placement. Apprenticeship or learnership schemes include study at a Technical College, and the employer may give time off for this. Unfortunately these schemes at present affect only a small proportion of juveniles. In Coventry, for example, there were before the war about 8,500 boys between 14 and 18. The engineering industry employed nearly 6000. Over the 5 years up to 1937 the average number of apprentices gaining certificates under the training scheme was 63 annually.

In discussing health and welfare the author states that the physical condition of juveniles is far from what it should and could be, although height and weight, general health and health as a whole have all improved under the Factory Act measures but mainly because of advances in social and economic conditions and education. The doctor, dentist and nurse can do little if good housing, food, light, air and clothing are lacking. Nutrition is a question basically affecting youth. The conditions under which young wage-earners work are important. The main reform is shortening working hours. It should not be permissible, for example, for boys to work in mines. In 1936 over 47,000 boys under 18 worked below ground. Accidents to young workers had risen, especially in coal-mining. Provisions to be ensured include hot mid-day meals at reasonable cost, supply of milk when it becomes again possible, adequate sleep, improvement in personal habits and dress, facilities for recreation, more adequate medical care after leaving school including dental and other benefits, medical inspection under the Factories Act to include adequate follow-up, and a fuller understanding of the particular requirements of youth.

The book also includes well-documented and interesting chapters on unemployment, public protection, delinquency, boys' and girls' organizations, leadership, conduct and religion, and finally outlines objectives for the future. In view of the vital importance of juvenile health in industry, and the fact that it must therefore be one of the foremost responsibilities of doctors and nurses in the future, this book is at once an authoritative document and a fascinating subject for study.

D. S.

VENTILATION AND HEATING: LIGHTING AND SEEING

Industrial Health Research Board Pamphlet No. 1
(H.M. Stationery Office. 1943. Pp. 20. 3d.)

During the war there has been much evidence that the results of research into industrial health are still not widely enough known and applied. This pamphlet, the first of a new series published by the Industrial Health Research Board, is intended to meet the apparent need for brief and easily understandable accounts, in non-technical language, of the findings of research workers. The pamphlet is intended primarily for laymen, including nurses, personnel and welfare officers, works managers and engineers, and for the workers themselves. However, many members of the medical profession also will find that it provides useful information about the effects of working conditions on the health of the workers.

One striking example of the importance of good ventilation and heating is given by the record of accidents in munition factories in the war of 1914-18. Accidents were at a minimum when the shop temperature was between 65° and 70° F., and increased by as much as 30 per cent when the temperature fell below 55° and by 20 per cent when it rose above 70°. In some factories there is still very inadequate ventilation during the black-out, and suggestions are made for remedying this, and thus diminishing the risk of the spread of infection and feelings of fatigue.

Good general illumination of a factory stimulates production by causing workers to feel more cheerful and energetic, and also permits safe and rapid movement of persons and materials about the factory and makes cleaning easier. Fine work may need up to 100 times more light than the roughest work, and the value is stressed of measuring light by the simple light-meter. In addition, special spectacles may be needed, prescribed by an expert who, of course, must take into consideration the nature of the work as well as the vision of the worker. Much
valuable work in preventing eyestrain and assisting in the suitable placing of workers is being done by those factory medical officers who test the vision of all new workers.

This pamphlet may be regarded as an authoritative statement based on the results of scientific investigations over a period of more than twenty years. It should be appreciated by all who are interested in that most vital problem in war-time, the maintenance of good health in industrial workers.

N. M. D.

**KAISER WALES THE DOCTORS**

By Paul de Kruif

(Harcourt, Brace and Co., New York. 1943. Pp. 158. $2)

Mr. Henry J. Kaiser, the famous American shipbuilder, has recently provided for his 200,000 workers a comprehensive health service. He has evidently proved that a pre-paid assurance type of medical scheme on a mass scale is a practical undertaking. Many of his employees were rapidly recruited and drafted to his shipyards at short notice because of the urgency of his programme. This sudden influx of workers completely paralysed the local medical services, appointments to see doctors on quite urgent matters for example had to be made weeks ahead of time. Kaiser therefore had to act and he acted quickly. Dr. Sidney R. Garfield became his medical director and set up in record time a full and comprehensive service.

The plan revolves about two hospitals built by Kaiser with his own and Federal Government funds—the Permanente Foundation Hospital at Oakland, California, and the North Permanente Foundation Hospital at Vancouver, Washington. In addition, there are several smaller hospitals and a chain of first-aid stations in and near the yards. For 50 cents a week (2s. 6d.) at the California shipyard, and for 60 cents (3s.) at Washington and Oregon the workers receive complete hospital and medical care. These payments are deducted from wages on a wholly voluntary basis. Workers are not compelled to accept the scheme but the vast majority have done so.

Each employee is given a thorough physical examination before engagement. Physical handicaps do not prejudice employment but help in placement. The essence of the plan is the prevention of illness and accident by preventive medicine.

The first-aid stations in the shipyards form the basic unit, and serious cases are referred to the first-aid hospitals or the larger foundation hospitals according to the treatment needed. There are no limits to hospital treatment for both industrial and non-industrial illnesses as well as accidents, but venereal diseases, insanity, pregnancy and related ills, and extensive dentistry are excluded, although treatment of the gums when recommended by physicians is covered. There are additional charges for certain special forms of treatment which are provided at cost.

Some 125 well qualified doctors provide these services on a 24-hour basis, together with a full nursing and technical staff. The staff are highly paid, some of them at top rates, not from the original endowment but from the membership fees paid by the workers. There is an adequate ambulance service. Kaiser is attempting to extend the full programme to cover the families of all his workers. The Fontana employees may enrol their families in the scheme at the rate of 60 cents (3s.) weekly for the wife and 30 cents (1s. 6d.) for each child. The Vancouver, Washington, charge is approximately 3 cents (1½d.) per day for each member of the family.

Kaiser's male employees are largely ineligible for military service because of physical inadequacies or age, and a high proportion of the employees are women. Both groups would normally be considered bad risks from the commercial assurance point of view especially when their dangerous working conditions are considered. Nevertheless, the Kaiser plan has been a financial success. Although the two main hospitals are non-profit making organizations they are meeting all operating costs and creating a surplus for expansion.

D. S.

---

**STATUTORY RULES AND ORDERS, 1943**

The following Statutory Rules and Orders have been issued since January, 1943:

**S.R.O. 187, 1943—The Electricity Supply (Hours, Safety and Welfare) Order, 1943, dated February 4, 1943, made by the Minister of Labour and National Service under Regulation 59 of the Defence (General) Regulations, 1939.**

**S.R.O. 268, 1943—The Magnesium (Grinding of Castings and Other Articles) Order, 1943, dated February 11, 1943, made by the Minister of Labour and National Service under Regulation 60 of the Defence (General) Regulations, 1939.**

**S.R.O. 573, 1943—The Factories (Canteens) Order, 1943, dated April 7, 1943, made by the Minister of Labour and National Service under Regulation 60 of the Defence (General) Regulations, 1939.**

**S.R.O. 1053, 1943—The Factories (Luminising) (Health and Safety Provisions) (Amendment) Order, 1943, dated July 14, 1943, made by the Minister of Labour and National Service under Regulation 60 of the Defence (General) Regulations, 1939.**