EDUCATION IN INDUSTRIAL HEALTH

The crux of the Report of the Royal College of Physicians of London on Industrial Medicine is the argument for a National Industrial Health Service, and the members of the committee responsible for the Report were much concerned with the training of the medical officers of this service. That training has now been considered in greater detail by the Education Committee of the Association of Industrial Medical Officers, and I am glad of an opportunity of giving a warm welcome to the report published in this issue.

The very existence of this country as a first-class power depends on the development of industry after the war. The mills admittedly grind slowly, but to anyone who has been concerned with the training of the medical profession for many years, as I have been, it is plain that it is to education that we must look for the ultimate solution of the many problems involved.

As the College Report emphasized, full efficiency in industry can only be achieved by contented producers, and such contentment implies the highest attainable level of physical and mental health. This in turn will demand the fullest co-operation of employers, workers, and all members of the medical profession. It is with the training of the last that the present report is concerned, and it covers the whole field of undergraduate and post-graduate education, not forgetting the training of nurses and the education of the layman. It is satisfactory to learn that the undergraduate is not to be burdened with yet another major subject. The suggestions for lectures and demonstrations are modest; it is more important that the 'teachers of medicine and surgery should themselves understand something of the principles of industrial health' than it may be part of their everyday instruction.

The College Report did not reach any final conclusion concerning a Diploma in Industrial Health, but the decisions of the Association's Committee seem to me wise, with their insistence on its limited use and on the broader aspects of post-graduate training in industrial health to secure a sound clinical background and to foster every opportunity for research. In the light of these decisions, it will obviously be the duty of the Royal College of Physicians at an early date to consider the establishment of a Diploma. Such action, if approved, would probably provide a useful stimulus to the development of more adequate facilities for education in industrial health. These facilities would then become more widely available not only for a Diploma course, but also for training the part-time industrial medical officer and for the more advanced study necessary for the industrial consultant. In the words of a famous historian: 'The transitions of industry are always painful,' and it may well be that a painful phase faces this country no matter what political party is in control. It is the duty of the medical profession to equip itself to relieve pain and suffering, and in the industrial field the Association of Industrial Medical Officers has set out clearly how this may be achieved.

MORAN.

INTERNATIONAL INDUSTRIAL MEDICINE

Since the last century Great Britain has amassed an extensive knowledge of industrial medicine and hygiene, both through its Government services and industrial medical officers and others working independently of state organizations. The industrial revolution came first in the old world to Great Britain, whose inhabitants had no precedents to guide them in safeguarding the health of workpeople. Legislation to protect workers was developed as a result of the efforts of reformers, enlightened employers and trades unionists. At the beginning of the last century it was narrow in its scope and not rigidly enforced. But to-day the Factories Act and other Acts and regulations protect all who work in factories and mines, and are enforced by His Majesty's Inspectors who observe and record the effects on safety and health of many different types of work and conditions. This legislation bears comparison with that of any other county in the world, as does the means of enforcing it. In peace-time the knowledge collected by the Factory and Mines Inspectorate has to some extent been made available to other countries through the International Labour Office. This body, unlike the International Health Organization, survived the shipwreck of the League of Nations. It has two principal duties: the drafting of conventions and recommendations to Governments with the object of protecting the health of workers throughout the world, and the collection and dissemination of information on industrial health which is likely to be of international interest. More than thirty international conventions have been concluded and ratified by states large and small. There are those relating to the use of white lead for example, and to compensation for occupational diseases; in addition detailed recommendations have been submitted to Governments on the protection of the worker against anthrax, white phosphorus and lead poisoning. The International Labour Office has also maintained a continuous review of industrial medicine and hygiene published under the name of 'Occupation and Health'.

Before the war the International Labour Office arranged every four years a World Congress on Industrial Accidents and Occupational Diseases. These Congresses should be revived after the war.
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and the invaluable work of this body should be actively supported by all countries who subscribe to the principles of world security against war and disease. This year, at the San Francisco Conference, delegates on the Committee on Economic and Social Co-operation suggested the establishment of a new Industrial Health Organization which would centralize and co-ordinate existing bodies such as the Pan-American Sanitary Bureau, the Office Internationale d'Hygiène Publique in Paris, and any remnants of the League of Nations Health Organization. This proposal made by delegates from China and Brazil was warmly supported by representatives of many countries, including the United Kingdom, the U.S.A. and the U.S.S.R. Nevertheless there are obvious advantages in the International Labour Office acting as the co-ordinating body for industrial medicine and hygiene. It has done excellent work in the past and during the present war. The new International Health Organization will have urgent work to do in the control of epidemic diseases and in the relief of nations ravaged by war and other disasters. There should be close co-operation between these two organizations, for industrial medicine is but one facet of international preventive medicine.

Medical officers in their own organizations are able to study in detail many of the health problems associated with their industries. They have an approach to industrial health which differs in some respects from that of those in Government service who are primarily concerned with legislation and its enforcement; so there should be a free channel of communication between nations peripherally as well as centrally. This need has been appreciated by the Association of Industrial Medical Officers, which has appointed a special committee to establish and to maintain relations with medical practitioners in the British Commonwealth of Nations and in foreign countries engaged in the practice of industrial medicine and hygiene, including teaching and research. This Foreign Relations Committee will need time to consider and deliberate on its duties, but there are many problems which demand immediate attention. In the past contact from outside has been difficult because of the absence of well-defined points at which research and training in industrial health subjects could be centred. This difficulty should disappear after the war with the foundation of University Departments of Industrial Health. These centres will act as foci towards which visitors to this country will be drawn and from which contacts can be made with similar departments abroad. Relationships abroad will be fostered by the granting of travelling fellowships to those who are to teach and carry out research, and the far-sighted policy of the Nuffield Foundation in stimulating foreign travel as an essential part of the fellowships which they recently decided to endow will be of great value. There should be a central Institute of Industrial Health in London with a central library of industrial medicine and hygiene, through which medical officers and others could refer to foreign work and, if necessary, be introduced to and make direct contact with industrial medical officers and hygienists in other countries. Contact through the written word is essential and probably the first need, but it must be cemented by visits of medical officers in Great Britain to other countries and by welcoming in this country medical officers from overseas who should be offered every facility to meet members of the Association of Industrial Medical Officers and to see British industry and its medical services. As the circulation of this JOURNAL widens it may be advisable to invite eminent industrial medical officers from the Dominions, Colonies and foreign countries to be members of its Editorial Advisory Board. As a country we have learnt many lessons, but we still have much to learn from our colleagues abroad; and by this interchange of information between Governments and unofficial ambassadors of nations much can be done to improve measures for the maintenance of the health of workers throughout the world and thus to add to its wealth.

TRICHLORETHYLENE

Trichlorethylene is a chlorinated hydrocarbon of the aliphatic series. It is a colourless liquid with a characteristic smell. It has been known in industry for at least thirty years, being used for degreasing metals, in the extraction of oils and fats, in painting, enamelling, dyeing and dry cleaning; in the boot and shoe industry; in textile manufacture and the printing industry; as an insecticide, a disinfecting agent, and an impregnation material; in cleaning films, photographic plates and optical lenses; in the chemical industry; in gas purification; and as a rubber solvent. During the last ten years it has been used in the practice of medicine as an anaesthetic under the name of trilene. It has also been used in the treatment of trigeminal neuralgia and angina pectoris. It differs from other chlorinated hydrocarbons, and in particular chloroform, by not producing any severe lesion of the liver or kidneys in experimental animals; only Mayer,1 Castellino,2 and Lande3 have reported any changes in these organs. Bridge4 and Wilcox5 have each recorded the occurrence of jaundice in a man exposed to trichlorethylene, but in neither case was there any evidence that it could be attributed to this compound.

Dermatitis caused by trichlorethylene presents no special features. It is produced, as is the case with all fat solvents, by dissolving the protective fatty layer, and thus lowering the resistance of the skin to conditions of excessive warmth or moisture. In industry, however, the chief danger has been that of acute narcosis following prolonged exposure to high concentrations. This can easily prove fatal if

2 Folia med., 1932, 13, 415.
3 Arch. Mal. prof., 1939, 2, 454.