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The *British Journal of Industrial Medicine* is intended for the publication of original contributions in industrial medicine from workers of any nationality. It also provides sections for book reviews and abstracts.

All papers submitted for publication should be referred to Dr. Richard Schilling, Nuffield Department of Occupational Health, University of Manchester, Clinical Science Building, York Place, Manchester 13.

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Dunn, C. W. (1940). *J. Amer. med. Ass.*, **115**, 2263.

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department to be physically unfit for the job that he is now performing and is forced to accept some other job. Even if this does not involve lowering of pay, it may involve loss of seniority which where "first in, last out" rules are applied, is a source of considerable bitterness.

The treatment of injury is, of course, always a problem and most large plants have well set up and lavishly equipped medical departments which sometimes include a small operating theatre. Most space is generally given, however, to examination rooms due perhaps to the higher labour turnover of American industry. While industrial medical officers are now trained in industrial toxicology and may well have considerable knowledge of toxic risks, one does not gain the impression that this side of industrial medicine takes a very prominent place in their outlook or activity.

A remarkable reduction in lost time from accidents has been noticed in factories where a medical department has been set up. The exact relationship between the work of a medical department and these reductions is not known, but it must be connected to some degree with improved treatment of injury so that infection rarely occurs and with getting injured persons back to work more quickly. In this respect a well-run department may induce a man to stay at work though injured, since he can get regular medical attention within the works itself, whereas if he is taken off to an outside doctor or to the casualty department of a hospital he is normally sent home and not back to work. In fact it is a policy of a plant medical department to prevent minor injuries becoming major injuries. The great attention given by American industry to preventing workers staying away from work because of accidents

and to get them back when they have stayed away, is of considerable interest, for there can be little doubt that the rehabilitative effects of work, even of the lightest character, are greater than the best influence that can be brought to bear in the home. And in this the medical departments of American industry are doing very important work.

Conclusion

It is foolish for anyone to imagine that he can assess the institutions or the way of life of another country wholly objectively, for however hard we try our reactions are conditioned to some extent by the opinions and, above all, the prejudices which we bring from our own land. This is particularly true of the Americans and the British, for so often our similarities in outlook and in language serve to conceal the very marked differences between the two countries; we are, as Bernard Shaw said, "two nations divided by a common language."

There is, however, one marked impression left in the mind when considering industrial health in the United States. It is the lack of coordination of the efforts of the various persons interested in the subject. To say this is not to be unaware of the national background provided by American history that probably makes this inevitable. America has no industrial enforcement service such as the Factory Department in this country to establish the minimum standards of industrial health without fear or favour and without reference to geographical barriers. More important, as a result, she has no statistics of industrial disease for the nation as a whole. It is this more than anything which makes it difficult to assess the success of American enterprise in this realm.

THE APRIL (1954) ISSUE

The April (1954) issue contains the following papers :—

Tumours of the Urinary Bladder in Workmen Engaged in the Manufacture and Use of Certain Dyestuff Intermediates in the British Chemical Industry. Part I. The Role of Aniline, Benzidine, Alpha-Naphthylamine, and Beta-Naphthylamine. By R. A. M. Case, Marjorie E. Hosker, Drever B. McDonald, and Joan T. Pearson.

Tumours of the Urinary Bladder in Dogs after Ingestion of 4-Aminodiphenyl. By A. L. Walpole, M. H. C. Williams, and D. C. Roberts.

An Industrial Health Service in Norway. By Haakon Natvig.

Fatal Emphysema in Two Men Making a Copper Cadmium Alloy. By Ronald E. Lane and A. C. P. Campbell.

A Study of Boils at Three Collieries. By O. P. Edmonds, R. H. P. Fernandez, and L. B. Bates.

Individual Differences in Accident Susceptibility Among Coal Miners. By J. W. Whitfield.

The Toxicity of Nitrogen Pentoxide. By W. M. Diggle and J. C. Gage.

The Development of Lymph Nodes after Injection of Flint of Variable Size into the Lungs of Rats. By G. Nagelschmidt, E. S. Nelson, E. J. King, and C. V. Harrison.

The Effect of Oiling the Cotton on the Airborne Contamination in Card Rooms. By D. G. Drummond, Mary Hamlin, J. K. Donoghue, and F. Brownsett.

Miscellanea :

A Simple Micromethod for the Determination of Lead in Small Amounts of Blood. By P. E. Cornish and D. O. Shiels.

Three Approaches to the Study of Personality. By Alastair Heron.

A number of copies are still available and may be obtained from the Publishing Manager, British Medical Association, Tavistock Square, W.C.1, price 12s. 6d.

book represents the views of those who ignore the phenomena of their experience in order to construct a world in which the functions of the cell are personified and microbes become the instruments of Providence. A list of "useful prescriptions" supplies the meretricious perfume unhappily *de rigueur* in writings addressed to the general practitioner.

This little book cannot fail to entertain, and it should help to revive interest in an obscure and unrewarding subject. The Editor is to be congratulated not only on his enterprise but on his very real success in integrating the views of so many talented personalities.

J. H. TWISTON DAVIES

Pulmonary Tuberculosis. By R. Y. Keers and B. G. Rigden; Foreword by F. H. Young. Third edition. (Pp. 324; 150 figures. 24s.) Edinburgh: E. & S. Livingstone. 1953.

Both the popularity of this little book and recent advances in treatment have necessitated three editions in eight years. It is well produced but the films suffer the inevitable consequences of reduction in size so that minimal lesions are difficult to see.

It is written easily and clearly with sufficient historical review to whet the appetite without overburdening the student. The chapter on after-care is well done and outlines the help available from the various social services. Perhaps the weakest part of the book is in the statistics on tuberculin testing since neither the methods nor the strengths of tuberculin used are quoted. There also appears to be a discrepancy between the two authors concerning race and tuberculosis, and the important findings of the Proffit Survey are not quoted. Despite these imperfections this book will give the student a thorough picture of an individual with this disease and be of interest and importance to practitioners in the management of their early cases and give them valuable guidance on after care.

J. P. W. HUGHES

Coal Tar and Cutaneous Carcinogenesis in Industry. By Frank C. Combes. (Pp. 76; 25 illustrations. 20s.) Oxford: Blackwell Scientific Publications. 1954.

This short monograph of 60 pages provides a summary of information relative to the problem of skin cancer. Greatest emphasis is placed upon cancer following exposure to various tars, and the medical man will find the section on the production methods and chemical nature of tars of interest. A disproportionate amount of space, however (about one-sixth of the monograph), is devoted to a discussion of the photodynamic action of light and its relationship to industrial skin cancer.

The author summarizes the early changes produced by exposure to tar as tar burns, tar erythemas ("smarts"), allergic eczematous dermatitis (which he rightly considers as rare), folliculitis, cysts, and melanosis. In discussing the late effects he takes the liberty of redefining the "shagreen" skin of Prosser White as an omnibus title for "alteration in the skin of individuals exposed for long periods to tar and pitch".

The subject of petroleum cancer and dermatitis

from oils is dealt with in some four pages of text which contain the astounding statement that "the carcinogenic properties of crude petroleum and the heavy petroleum oils depend upon their ability to cause follicular hyperkeratoses and acneiform lesions in the same fashion as pitch and carbon".

The final section on the control of tar cancer is excellent, and includes suggestions for the education and protection of the worker, plant protection, and other general measures.

Numerous references are supplied and these include most of the key references for any person who desires to study the subject. There is, however, no attempt to give guidance as to their relative usefulness. No mention is made in the text of several of the authors' names in the bibliography; for example, the important work of S. A. Henry is not referred to in the text, and, as judged by the bibliography, the author does not appear to be aware of any publications of this worker later than 1937.

C. N. D. CRUICKSHANK

BOOKS RECEIVED

(Review in a later issue is not precluded by notice here of books recently received.)

Life and Other Contingencies. By P. F. Hooker and L. H. Longley-Cook. (Pp. 312. 22s. 6d.) London: Cambridge University Press. 1953.

Transactions of the Ophthalmological Society of the United Kingdom, Vol. LXXIII, Session 1953. London: J. and A. Churchill. 1953.

Proceedings of First Congress 1953 of the World Confederation for Physical Therapy. (Pp. 91.) London: The Chartered Society of Physiotherapy. 1953.

Lehrbuch der Arbeitshygiene. Vol. I—Allgemeine Physiologie und Hygiene der Arbeit. By Franz Koelsch. (Pp. vii + 426. DM. 49.—) Stuttgart: Ferdinand Enke Verlag. 1954.

Occupational Health and Safety. By Gerald Machanik. (Pp. 39.) Pretoria, S.A.: Workmen's Compensation Commissioner. 1954.

First Report of the Expert Committee on Poliomyelitis. W.H.O. Technical Report Series No. 81. (Pp. 69. 3s. 6d.) London: H.M. Stationery Office. 1954.

Pneumoconiosis Abstracts, Vol. II—1939–1950. (Pp. 518. 80s.) London: Sir Isaac Pitman. 1954.

Mental Health and Human Relations in Industry. Edited by Thomas M. Ling, with Foreword by The Rt. Hon. Lord Horder. (Pp. xvi + 268; 11 figures. 21s.) London: H. K. Lewis. 1954.

Einrichtung und Arbeitsweise einer Blutbank. By W. Heim and P. Dahr. (Pp. 328; 36 figures. DM. 33.—) Stuttgart: Georg Thieme Verlag. 1954.

Textbook of Medicine, 11th ed. Edited by Sir John Conybeare and W. H. Mann. (Pp. xvi + 905; 40 figures, 31 x-ray plates. 37s. 6d.) Edinburgh and London: E. and S. Livingstone. 1954.

(3) 14 patients aged 26 to 70 with chronic anaemia. Each subject was studied at ground level and on exposure to simulated altitudes of 10,000 feet (3,050 m.) and 18,000 feet (5,480 m.) in a decompression chamber, comprehensive analyses of cardiac and respiratory function being carried out. The normal response to the anoxia so induced included an increase in pulse rate and stroke volume, an increase in "useful work" of the left ventricle, a fall in peripheral resistance to blood flow, a slight fall in systolic and diastolic blood pressures, and maintenance of a normal venous pressure. The respiratory rate showed a tendency to rise with the more severe stress, and the oxygen and carbon dioxide content and oxygen saturation of arterial blood fell, the haematocrit value rose slightly, and minor changes occurred in the electrocardiogram (ECG) which were rapidly reversed by oxygen administration.

In the subjects with angina the blood pressure and pulse pressure were increased on initial examination, peripheral resistance was slightly raised, and there were signs in the ECG of myocardial ischaemia. The changes on exposure to altitude resembled those observed in normal subjects with the exception of an upward trend in both arterial and venous blood pressure. Angina was experienced by some members of this group after 10 minutes at 18,000 feet, and reversal of the changes in the ECG was slower than normal on oxygen administration. In the anaemic subjects at ground level the pulse rate, stroke volume, mean arterial pressure, and venous pressure were increased, peripheral resistance was slightly raised, and arterial oxygen content reduced. Their response to altitude differed from that of the other groups only in that the venous pressure rose significantly, the left ventricular work rate rose more steeply, and the changes in the ECG were reversed more slowly. The rise in cardiac output in all groups was achieved by elevation of both pulse rate and stroke volume.

It is concluded that the risk entailed in the air transport of anaemic and anginal subjects seems slight in modern aircraft, especially if oxygen equipment is available.

D. I. Fryer

GENERAL

Effect of Prolonged Exposure to Intense Noise on Hearing Acuity. SATALOFF, J. (1953). *Arch. Otolaryng. (Chicago)*, 58, 62.

The author has made an audiographic study, with regular otological examinations of 154 men, all under 50 and the great majority under 40, who were employed in testing jet-engines and were daily exposed to a continuous noise with an intensity between 90 and 120 decibels for periods up to 5 years. No subjects were included who showed any conduction deafness or who used ear-protectors. The predominant frequencies were below the level of 600 c.p.s.

His conclusions are as follows. (1) Workers in industry who are exposed to continuous, moderately intense, low-frequency noise may sustain measurable degrees of auditory fatigue daily for many years without suffering any significant degree of permanent hearing impairment. (2) None of the subjects in this study showed any change in hearing acuity in the 1,024 and 2,048 frequency range, and none sustained changes greater than 30 decibels at 4,096 and 8,192 c.p.s. (3) None of the changes could definitely be attributed to the noise being investigated. Subjective hearing loss and tinnitus were rare. It is concluded that, from the observations made in this study so far, the human ear would appear to be more resistant to noise than it is usually thought to be. The author's methods and the apparatus used are described in detail.

-F. W. Watkyn-Thomas

Mackenzie Industrial Health Lecture

The Mackenzie Industrial Health Lecture is arranged biennially by the British Medical Association to commemorate Mr. James Mackenzie, the founder of the Industrial Health Education Society. The 1954 lecture was arranged in conjunction with the Association of

Industrial Medical Officers and given during the provincial meeting of that Association on July 13, by Dr. M. W. Goldblatt. His subject was "Research in Industrial Health in the Chemical Industry". The lecture will be published in a forthcoming issue of this journal.

Lodging of Recondite Data

Arrangements have been made whereby the Technical Information and Documents Unit (T.I.D.U.) of the Department of Scientific and Industrial Research will, on the Editor's recommendation, accept the custody of research papers, particularly those touching industry, for which, on account of their length, there is insufficient space in this journal. This mainly concerns ancillary

material which, being inessential to the general reader, need not occupy space in the journal, or, possibly, a complete paper of highly specialized interest. It is intended that specialist workers interested should have access to deposited material either in the reading room of the T.I.D.U. or by loan from the Unit at Cunard House, 15, Lower Regent Street, London, S.W.1.