

# BRITISH JOURNAL OF INDUSTRIAL MEDICINE

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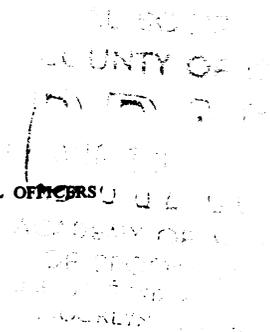
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small groups of mixed disciplines meeting together in this country and in the U.S.A. to exchange ideas about this provocative new point of view in biology and human affairs. Dr. Wiener has now written a book for the layman in which he entirely avoids mathematical symbolism and attempts to emphasize the social consequences of the new insights.

The first chapter gives a brief outline of cybernetics in which the significance of feed-back is mentioned, but rather more space is devoted to the argument that information in communication systems can usefully be regarded as the negative of probability and of entropy. These ideas are further developed in a chapter on "Progress and Entropy" in which, however, he very soon plunges into a discussion of the ultimate fate of the universe and the illusory basis of ideas about the inevitability of progress. From that point onwards the arguments, although interesting and sometimes fascinating, often seem to have little relevance to cybernetics; there is, for instance, a good deal about the philologist's contribution to the understanding of language and semantics, and even more about the present social and political crisis in America. When Dr. Wiener speaks of the nature of the new industrial revolution in which we are unwittingly involved he speaks with authority, for he has taken a leading part in the development of systems of automatic control which include judgment and memory. He argues that just as the first industrial revolution has up to the present displaced man and beast as a source of power, so in a more completely automatic age, the more mediocre skills and judgments will become redundant. This new era is not remote but might arrive in the U.S.A., especially under the pressure of a war economy, in a matter of a very few years. He describes the possible results as a decade or more of ruin and despair in which the depression of the '30s would seem a pleasant joke.

Medicine is still facing the social consequences and the diseases of the older industrialization; it is depressing but nevertheless probably necessary to begin to think about the consequences of the next phase. As Dr. Wiener puts it, the "know-how" of the technologist, which is what government is becoming, is not enough; the "know-what", which involves a consideration of human values and human aims, is much more necessary in the long run, and this implies the fullest realization of the human capacities of the governed—the human use of human beings.

T. FERGUSON RODGER

**Health Education: A Guide to Principles and Practice.** By Cyril Bibby. (Pp. 222. 17s. 6d.) London: Wm. Heinemann. 1952.

This book is written to cover the whole range of health education. It is not a textbook of hygiene but something much more valuable—a series of essays endeavouring to give a liberal orientation to what may be described as the newest of the humanities. The chapters cover in a general way the philosophy, facts, and media through which health education is done,

and try to apply these particularly to home, school, college, and the community environment. Industrial aspects are only hinted at.

In such a general review of a vast subject it is inevitable that Mr. Bibby's study is extensive rather than intensive, but in a subject where so little research has been done it is safer to treat it somewhat superficially.

The author has a wide cultural background and a sympathetic and sensitive appreciation of human motivation. It is precisely these qualities which are so precious in workers in this field; as Mr. Bibby constantly implies, it is the attitudes which field workers communicate towards health and disease which are more important than a knowledge of the facts.

Since Mr. Bibby is concerned mainly with the training of teachers it is understandable that the accent should be mainly on schools and the whole of health education seen from the teacher's point of view. The impression that this orientation gives is by no means a reflection on the way in which health education is in point of fact done, but the health visitors, midwives, and medical officers, on whom so much depends, will find much refreshing and provocative material.

The appendices, which were obviously the subjects of considerable thought and effort, are useful summaries focusing points for the practical worker, though the draft syllabus for a qualification in health education is still only at the stage of a "letter to Nature".

The directory of health education organizations, though a prodigious achievement, is perhaps out of place in such a volume.

The book can be safely recommended to all those seriously interested in the subject, and will be of interest to any concerned in health or education, or those debating the question, "What shall I tell my child?"

J. BURTON

#### BOOKS RECEIVED

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

**L'Oxyde de Carbone et l'Oxycarbonisme.** By V. Raymond and A. Vallaud. (Pp. 367; 22 tables and 50 figures. No price.) Published by the Institut National de Sécurité pour la Prévention des Accidents du Travail et les Maladies Professionnelles. 1950.

**Evaluation of Industrial Disability.** Prepared by the Committee for Standardization of Joint Measurements in Industrial Injury Cases of the California Medical Association and Industrial Accident Commission, State of California. (Pp. 89; 80 figures. £1 12s.) Oxford University Press (London: Geoffrey Cumberlege). 1950.

**The Health Hazard of Shales Used for Stone Dusting.** By G. Nagelschmidt and A. L. Godbert. (Pp. 15. No price.) London: Ministry of Fuel and Power (Safety in Mines Research Establishment). 1951.

**The Nuffield Foundation Sixth Report (Year Ending 31st March, 1951).** (Pp. 113. No price.) Oxford: The University Press. 1951.

**An International Bibliography on Atomic Energy, Vol. 2—Scientific Aspects.** (£3 15s.) London: H.M. Stationery Office. 1951.

**Praktischer Leitfaden der Beruflichen Hautkrankheiten.** By C. Carrié. (Pp. 183. DM. 22.–) Stuttgart: Georg Thieme. 1951.

**Gestalt Psychology: Its Nature and Significance.** By David Katz. (Pp. 165; 33 figures. 12s. 6d.) London: Methuen. 1951.

**Homework with a Difference.** By Muriel Owen-Davies. (Pp. 76. 10s. 6d.) London: National Association for the Prevention of Tuberculosis. 1951.

**Thinking. An Introduction to Its Experimental Psychology.** By George Humphrey. (Pp. 331. £1 1s.) London: Methuen. 1951.

**Manual Lifting and Handling.** By T. McClurg Anderson. (Pp. 28; 31 figures. 2s.) London: Industrial Welfare Society. 1951.

**The Young Wage-Earner. A Study of Glasgow Boys.** By T. Ferguson and J. Cunnison. (Pp. 194; 129 tables. 8s. 6d.) London: Oxford University Press.

**The Nuffield Provincial Hospitals Trust.** (Pp. 68. No price.) Oxford: The University Press. 1951.

**Acta Societatis Medicorum Upsaliensis, Vol. LVI, Nos. 1–2, 3–4.** (Pp. 87, 89–175. No price.) Upsala and Stockholm: Almquist and Wicksells Boktryckeri AB. 1951.

**Some Common Psychosomatic Manifestations.** By J. Barrie Murray. (Pp. 285. 17s. 6d.) London: Oxford University Press. 1951.

**Health and the Citizen.** By Joseph V. Walker. (Pp. 151. 10s. 6d.) London: Hollis and Carter. 1951.

**Transactions of the Ophthalmological Society of the United Kingdom, Vol. LXX. Session 1950–1951.** (Pp. 223; illustrated. No price.) London: J. and A. Churchill. 1951.

**Directory and Handbook of the Scientific Instrument Manufacturers Association.** (Pp. 251; illustrated. No price.) 1951.

**The Cost of Sickness and the Price of Health.** By C. E. A. Winslow. (Pp. 106. 7s. 6d.) Geneva: World Health Organization. 1951.

**Tuberculosis in Industry.** With foreword by James Watt. (Pp. 64. 5s.) London: National Association for the Prevention of Tuberculosis. 1952.

**An Automatic Dust Sampler.** By H. Lloyd, G. E. Winder, and D. A. Gillard. (Pp. 19. 1s.) London: Ministry of Fuel and Power (Safety in Mines Research Establishment). 1951.

**Ontario Medical Review, Vol. 18, No. 9.** (Pp. 103; illustrated. No price.) Ontario Medical Association. November, 1951.

**First Aid to the Injured and Sick.** Edited by A. P. Gorham. (Pp. 300; 286 figures. 6s. 6d.) Bristol: John Wright. 1952.

**Klinik und Therapie der Vergiftungen.** By Sven Moeschlin. (Pp. 430; 53 figures. DM. 45.–) Stuttgart: Georg Thieme. 1952.

**Anaesthetics and Anaesthesia for Nurses.** By W. J. Finnie. (Pp. 110; 36 figures. 7s. 6d.) London: *Nursing Mirror* Publication. 1952.

**Le Dépistage Radiologique Systématique des Affections du Thorax.** By Maurice Bariéty and Charles Coury. (Pp. 216; 58 tables and 10 diagrams. Fr.Fr. 1,800.–) Paris: Masson et Cie. 1952.

**The Calculation of Industrial Disabilities of the Extremities.** By Carl O. Rice. (Pp. 289; 160 illustrations. £3 17s. 6d.) Springfield, Ill.: Charles C. Thomas. 1952.

**A Short Guide to the Factories Acts 1937 and 1948.** (Pp. 16. 6d.) London: H.M. Stationery Office.

**Applied Statistics, Vol. 1, No. 1.** A Journal of the Royal Statistical Society. (Pp. 80. Single No. 10s., per annum 25s.) London and Edinburgh: Oliver and Boyd Ltd. 1952.

**Recherches sur les Pneumoconiosis Chroniques de l'Homme.** By R. L. Bounhoure and C. Bimes. (Pp. 114; 22 figures. Fr.Fr. 650.–) Paris: Masson et Cie. 1952.

**King George VI and Industry: A Tribute.** (Pp. 12; illustrated. No price.) London: Industrial Welfare Society. 1952.

**Hot Water for Health.** (Pp. 14. No price.) London: The Gas Council Press and Information Office. 1952.

**Social Psychology.** By W. J. H. Sprott. (Pp. 208. 20s.) London: Methuen. 1952.

**Diary of a Psychiatrist.** By James T. Fisher and Lowell S. Hawley. (Pp. 256. 16s.) London: Medical Publications Ltd. 1952.

**The Threshold of the Abnormal. A Basic Survey of Psychopathology.** By Werner Wolff. (Pp. 473. 30s.) London: Medical Publications Ltd. 1952.

number of the men who had had rashes were able to continue working in the plant without any recurrence of dermatitis provided they took proper precautions.

Altogether 35 men operated the plant and so were exposed daily to the amines. Of the 12 who developed dermatitis, 6 did so during the first year of exposure. The incidence of cases in the plant was the same for each of the 4 years it had been in operation; the majority of cases occurred during the hot months of the year, when only light clothing could be worn and gloves were discarded.

All the thermal burns due to liquid amines healed without incident except in one case, that of a man who was burned twice and, when the second burn healed, developed dermatitis on the site. Of the 3 patients with asthma, 1 began having attacks on exposure to amines after an upper respiratory infection; the second developed asthmatic attacks after handling acetic anhydride and this reaction later occurred when he was exposed to amines; the third man developed asthma while he was exposed to ethylene amines alone. All 3 lost their asthma when they were transferred to other work.

It is suggested that the ethylene amines have an allergic effect in addition to the obvious irritant action due to their alkalinity. (No skin tests were carried out, however, and no information is given about the degree of atmospheric contamination. The fact that several susceptible men were able to continue working in the plant if simple precautions were observed does not support the suggestion of allergic action by these amines.)

*W. K. S. Moore.*

**Polymer-fume Fever.** HARRIS, D. K. (1951). *Lancet*, 2, 1008.

Polymerization of tetrafluoroethylene produces an inert plastic which is unusually thermostable. This polytetrafluoroethylene ("teflon" or "fluon") gives off an invisible toxic fume when heated above 300° C., when extruded hot, or when heated by friction with cutting tools. After a few hours' latent period, exposed workers may experience an influenza-like illness, with retrosternal oppression, dry cough, and malaise, followed by fever up to 104° F. (40° C.), rigors, and sweating. There are sometimes transient signs in the chest. Spontaneous recovery takes place in about 2 days.

Experiments on rats showed that exposure to fluon heated to between 140° and 325° C. produced respiratory irritation and death from pulmonary oedema and haemorrhage, especially in experiments at over 300° C. An unidentified mineral acid was evolved, and also, at the latter temperature, a sublimate. Decomposition at 600° to 700° C. produces C<sub>2</sub>F<sub>4</sub>, C<sub>3</sub>F<sub>6</sub>, and C<sub>4</sub>F<sub>8</sub>, but these are not toxic.

The exact nature of the toxic substance in this case is not yet known; a parallel is drawn with metal-fume fever, but only very small quantities of metals were found in the polymer ash. Prevention is by local exhaust ventilation. Treatment is symptomatic, and oxygen is recommended. Some doubt exists whether symptoms can arise from inhaling cold polymer dust.

Full details are given of 2 cases in men exposed to the fume, both of whom had had several attacks.

*J. N. Agate.*

## THE APRIL (1952) ISSUE

The April (1952) issue contains the following papers:—

**History of Lung Diseases of Coal Miners in Great Britain: Part II, 1875-1920.** By Andrew Meiklejohn.

**Pneumoconiosis of Coal Miners in North East England with Special Reference to the Durham Coalfield.** By R. I. McCallum.

**The Mechanism of Dispersion of Coal Particles in the Lungs of Miners.** By A. Policard.

**A Sampling Procedure for Measuring Industrial Dust Exposure.** By P. D. Oldham and S. A. Roach.

**Dust Sampling and Lung Disease.** By C. N. Davies.

**The Incidence of Bladder Tumours in a Dyestuffs Factory.** By T. S. Scott.

**Urinary Coproporphyrins in Lead Poisoning.** By J. E. Kench, R. E. Lane, and H. Varley.

**Studies on Cotton Dust in Relation to Byssinosis. Part I: Bacteria and Fungi in Cotton Dust.** By G. Furness and H. B. Maitland.

**Cardiovascular Disease in Cotton Workers. Part II: A Clinical Study with Special Reference to Hypertension.** By R. S. F. Schilling, N. Goodman, and J. G. O'Sullivan.

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.