Many of the activities of the M.R.C. are of particular interest to industrial physicians and teachers. New research units on clinical pulmonary physiology and atheroma have recently been introduced. Among the principal committees are those on occupational health, lung cancer, mineral oils, acute bronchitis, the human factor in railway accidents, and several on radiation hazards. The work of many of the research units, such as those on industrial injuries, pneumoconiosis, toxicology, radiological protection, social medicine, and industrial psychology, is well known to practitioners in occupational health, and a summary is given of the current research of each unit. Examples of new developments are the possibility of demonstrating tumour viruses in man, miniaturized radio-transmitting pills to make possible the measurement of physiological parameters, and the conicycle, an instrument for measuring concentrations of respirable dust, which has retention characters similar to the human lung, rejecting particles outside the 1-7 μ range. A new breath alcohol indicator may have more general impact.

The report is clear, easy for the uninitiated to follow, and well indexed. The 11 articles on medical research, which constitute the second part of the report, and the section on the Council's Advisory Boards were published in booklet form by H.M. Stationery Office in September 1963, under the title 'Current Medical Research'.

T. S. SCOTT

The Biochemistry of Bladder Cancer. By Eric Boyland. American Lecture Series. (Pp. 75; 12 figures and 2 tables. \$5.75.) Springfield, Illinois: Charles C. Thomas. 1963.

This book is based on lectures given by the author in the U.S.A. and presents mainly his contribution and personal views on the subject. Thus, it is complementary to the Elsevier Monograph on the 'Carcinogenic and chronic toxic hazards of aromatic amines' by T. S. Scott, 1962, which deals mainly with the industrial hazards of aromatic amines used in the dye industry, and their prevention; and also with the medical aspects of bladder cancer, its diagnosis and treatment. The book under review represents the approach of an experimental cancer worker to the problem.

Aromatic amines, such as 2-naphthylamine* and 4-aminobiphenyl, which give rise to tumours of the bladder, an organ remote from the site of their application, belong to the type of carcinogenic agents that have to undergo metabolic transformation before they become 'proximal' carcinogens. The book deals therefore extensively with the metabolism of aromatic amines, in particular with that of 2-naphthylamine, with which the author was mainly concerned, and together with his co-workers he identified 21 of its metabolites. References are made to the recent finding of N-hydroxylation of aromatic amines, the role of certain N-hydroxylamines as proximal carcinogens, and their bearing on Clayson's theory of *ortho*-hydroxylation, which until 1958 appeared to fit the known facts.

The story of bladder cancer contains further instructive

examples of how reality defies hypotheses, however logical and plausible. Kennaway used to say that nature often does not behave as we expect it should. The author reports the unsuccessful attempts to prevent the induction of bladder tumours in dogs treated with 2-naphthylamine, or the recurrence of bladder cancer in operated patients, by the administration of the ammonium salt of 1 $\rightarrow$ 4 saccharolactone. This compound, a known inhibitor of the enzyme glucuronidase, was selected in the hope that it may prevent the hydrolytic liberation of carcinogenic metabolites from their respective inactive glucuronides. The activity of this enzyme is optimal at about pH 5, which is obtainable in the urine.

Several errors or misprints have been noted, especially in the chemical structures (e.g. p. 7, III, IV; p. 59, VIII; p. 61, XIII; p. 65, Table 2, methyl-3-hydroxyanthranilate). Certain double bonds are missing in the aromatic structures (p. 5, I, II, III, IV) or omitted (Fig. 11) contrary to the convention adopted in the book.

However, these are small points, which should not detract from the value of this book by an author who greatly contributed to the development of its subject.

R. SCHOENTAL

Compendium of Emergencies. Edited by H. Gardiner-Hill. (Pp. 328; 55s.) London: Butterworth. 1963.

This is not just another book on first aid. It is an informed treatise on the nature, pathology, differential diagnosis, treatment, and management of emergencies in medicine, surgery, and the specialities. The editor claims that it is a ready reference, written by experts, which will help the doctor on his own to deal with the immediate and subsequent treatment of emergencies. The claim is justified. It will also be of value to the hospital resident, the industrial medical officer and to the consultant outside his own speciality.

The industrial medical officer faced with certain emergencies will find it useful. He may well, however, have reservations about the methods of artificial respiration (Schafer's and Eve's) recommended in the chapter on poisoning (mouth-to-mouth ventilation is advocated by two other contributors), and he may not go all the way with the writer on cardiac arrest who states that external cardiac massage 'may break a rib or two but the greater mobility of the chest wall is some compensation'!

Each subject is dealt with by a specialist, and if the number of authors leads to some repetition and inconsistencies these are insignificant compared with the authority and mastery which the writers display. It is important to be reminded, for instance, that morphine must be avoided absolutely in head injuries or that nearly all non-industrial poisonings are due to carbon monoxide, barbiturates or aspirin. It is puzzling, however, when one writer condemns intramuscular paraldehyde as the most brutally painful and disrupting of all attempts at sedation whereas two others recommend it, one for status asthmaticus and the other as the treatment of choice for status epilepticus. In future editions contradictions like these should be eliminated and the modern view agreed. If this is not possible, enough data might be given for the reader to choose for himself.

*Also known as β -naphthylamine.

This book provides a guide to the real nature of virtually every emergency one is likely to encounter, and it sets out not only the immediate action to be taken but also the subsequent management. When a specialist is not available, or not immediately available, it provides practical guidance and moral support.

The editor, Dr. H. Gardiner-Hill, who is co-author of the chapter on endocrine emergencies, is to be congratulated on adding to medical literature a book which should be found a place not on every doctor's book shelf but in his emergency bag, the pocket of his car or wherever he can put his hand on it quickly and unobtrusively.

T. S. SCOTT

BOOKS RECEIVED

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

Man's Anatomy, Physiology and Health. By Nancy Roper. (Pp. 458; 220 figs.; 25s.) Edinburgh and London: Livingstone. 1963.

Industrial Hygiene and Toxicology. Ed. Frank A. Patty. 2nd ed. revised. Vol. II. Ed. D. W. Fassett and D. D. Irish. (Pp. 2377; 300s.) New York and London: Wiley. 1963.

The Public Health Aspects of the Use of Antibiotics in Food and Feedstuffs. *Wld Hlth Org. techn. Rep. Ser.* (Pp. 30; 1s. 9d.) Geneva: World Health Organisation. 1963.

Air Pollution. (Pp. 45; 3s.) Geneva: World Health Organisation. 1963.

Proceedings of the National Industrial Safety Conference. (Pp. 103; 12s. 6d.) London: Royal Society for the Prevention of Accidents. 1963.

Training of the Physician for Family Practice. (Pp. 40; 3s. 6d.) Geneva: World Health Organisation. 1963.

World Health and History. By W. Hobson. (Pp. 264; 45s.) London: John Wright. 1963.

Clinical Psychiatry for the Layman. By F. J. Fish. (Pp. 59; 8s. 6d.) London: John Wright. 1963.

New Ideas on Rehabilitation. (Pp. 102; 10s. 6d.) London: Chest and Heart Association. 1963.

British Steel Castings Research Association 10th Annual Report, 1963. (Pp. 36; 7 figs.) Sheffield: B.S.C.R.A. 1963.

Notices

Biological Effects of Asbestos

A meeting on the Biological Effects of Asbestos will be held in New York from October 19 to 21, 1964, under the auspices of the New York Academy of Sciences. Topics of discussion will include: Recent advances in knowledge about the structure and ultra-structure, and composition of the principal types of fibre, also the content and composition of natural waxes adsorbed on the fibre; Studies of prevalence of asbestosis related to occupation and type of fibre; Studies of the association of bronchial,

pleural, and other tumours with exposure to asbestos; Investigations of the inhalability of asbestos fibres and experimental asbestosis in animals; Methods of dust control and sampling.

The Conference is by invitation. Applications to attend may be made to the Secretary, The New York Academy of Sciences, 2 East Sixty-Third Street, New York 21, N.Y.

Occupational Hygiene

An Academic Course leading to the Diploma in Occupational Hygiene of the University of London will start on October 5, 1964 and finish on June 25, 1965. The examination will be held from July 5 to 9, 1965.

It is open to graduates and others whose studies or previous experience have provided a suitable preliminary training in physics, chemistry, engineering, medicine or allied subjects.

The School can offer a training fellowship to enable a suitable graduate to take this Course. An application has been made for the Course to be accepted as suitable for the tenure of Advanced Course Studentships of the Department of Scientific and Industrial Research.

There will also be three short intensive courses of one week on Measurement and Control of Noise—February 1965; Measurement and Control of Industrial Air Pollution—March 1965; and Measurement and Control of Heat and Hot Environments—May 1965.

Fees for the whole Course are £88 4s. and for each short intensive course £5 5s.

Applications for admission to the courses should be addressed to The Registrar, London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1, from whom further particulars may be obtained.

Industrial Medical Association

A competition for a \$250 award for the best manuscript submitted by a medical student, intern or resident in the United States on any subject pertinent to and concerning occupational health has been announced by the Central States Society of Industrial Medicine and Surgery. The contest closes at midnight on July 31, 1964.

A second competition, open only to residents in occupational medicine, is announced by the Industrial Medical Association. The award, consisting of an embossed scroll, will be presented at the Association's annual meeting to the author or authors of a paper published in the open literature on a subject germane to occupational medicine which is judged to be the most outstanding of those submitted. Reprints entered in the competition must be published before May 31 and submitted before July 31, 1964.

Both contests will be judged by members of the Committee on Merit in Authorship of the Industrial Medical Association. The criteria will be largely based on clarity, validity, objectivity, originality and style. Complete contest rules may be obtained from the Industrial Medical Association, 55 East Washington St., Chicago, Ill.