

protein complexes, their influence on obstruction of organ passages, and the impairment of function in the affected organs. The excretion of sweat is discussed by R. L. Dobson, who enumerates the many factors which can affect the electrolyte excretion of sweat glands and points out the difficulties in obtaining "normal" levels for adults—a matter of importance in determining heterozygous carriers. Another practical difficulty is considered by C. C. Lobeck and Nona R. McSherry in discussing the interpretation of the results when sweat is collected by iontophoresis. H. M. Emrich and his colleagues report their studies, which showed that the sweat rate from fibrocystics is the same as in normal individuals but that in cystic fibrosis there is a defect in sodium reabsorption. H. Shwachman describes his technique and experience of seven years' pilocarpine iontophoresis (7,200 tests) and recommends this as the best available diagnostic test. W. J. Warwick, considering the high incidence of cystic fibrosis, estimated at 1 in 1,400 newborn, recommends a routine sweat test for newborn.

In the section on treatment there is a particularly valuable and practical chapter on inhalation therapy and postural drainage by L. W. Matthews and C. F. Doershuk, and a report by D. Lawson on the penetrability of mucus by antibiotics, in which he discusses the value of *N*-acetylcysteine as a mucolytic agent. He also warns of the dangers of omitting systemic treatment when antibiotics are being given by aerosol. The frequency of cor pulmonale (70%) in children dying from cystic fibrosis leads A. J. Moss to recommend prophylactic digitalization in all severe cases.

Among the many other interesting facts reported about cystic fibrosis are the rarity of phthisis and amyloidosis, the decrease in iron absorption in patients receiving pancreatic,

the increase in the incidence of diabetes among young adults, and the occurrence of abnormal distribution of sweat electrolyte values in some adults with chronic bronchitis, suggesting that such patients may be unsuspected heterozygotes. Altogether this is a book well worth reading and keeping.

WILFRID GAISFORD.

Drug Industry

The Pharmaceutical Industry. A Personal Study. By Wyndham Davies, M.B., Ch.B., D.P.H., D.I.H. (Pp. 240+viii. 63s.) Oxford: Pergamon. 1967.

In this interesting study the author embarks upon an analysis of the historical and contemporary factors that have determined the development of the pharmaceutical industry as we know it today in this country and in the U.S.A. He reviews the state of the art of the apothecary before the "pharmaceutical revolution" and explains how the industry grew and proliferated following upon the development of pharmaceutical remedies that could be marketed in bulk, rather than from the apothecary's shop. He elaborates upon the consequences of the development, primarily because of research undertaken by the industry, of the chemical synthesis of drugs likely to be of benefit in the treatment of disease states in man.

The result is of interest to all doctors, pharmacists, industrialists, members of the lay public, and Members of Parliament (a qualification held by Dr. Davies himself until 1966), who are concerned to study the progress of the forthcoming legislation to be enacted as foreshadowed by the recent Government White Paper on the safety, quality, and description of drugs. For Dr. Davies has assembled a formidable array of information

on the implications of the implementation of a system of control modelled on that of the American Food and Drug Administration. He studied, from inquiries personally conducted in 1965 and 1966, the effects on the American pharmaceutical industry of the control procedures of the F.D.A., and he compares the effects of the activities of the Committee on Safety of Drugs in this country. He concludes, not surprisingly, that the smaller organization here enables there to be a more sympathetic understanding between the committee and the industry than pertains with the F.D.A. in the U.S.A., and by implication he infers that a controlling machinery like the F.D.A. is unwieldy and perhaps might have been oriented in a direction less aggressive and critical of the pharmaceutical industry. Dr. Davies is at his best in this chapter, as he gives his personal views of the medico-political atmosphere that formed the present pattern of the F.D.A. In this country the pattern will no doubt be influenced by the form, scope, and degree of independence of the Medicines Commission ultimately established, and on the extent to which the recommendations of the Sainsbury Committee are incorporated into legislation.

The author is less interesting in his remaining chapters. He reviews the factors that determine drug pricing, and the role and effects of pharmaceutical advertising, but here he recapitulates material already widely published, and he tends to be rather platitudinous and condescending in a chapter on the conquest of disease.

This volume is a good piece of medical journalism, showing perspicacious insight into many of the ramifications of the industry, an industry upon which all doctors and patients are dependent for, respectively, their livelihood and their lives.

ALASTAIR G. MAGGREGOR.

Books Received

Review is not precluded by notice here of books recently received.

The First International Congress of Orthopodists. Transactions of a Congress held at the Royal College of Surgeons of England, 1967. (Pp. 376+ix; illustrated. 63s.) London: Henry Kimpton. 1968.

Clinical Hematology. 6th edition. By Maxwell M. Wintrobe, M.D., Ph.D., D.Sc.(Hon. Manitoba), D.Sc.(Hon. Utah). (Pp. 1287+xxv; illustrated. £10.) London: Henry Kimpton. 1967.

Cardiovascular Physiology. By Robert M. Berne, M.D., and Matthew N. Levy, M.D. (Pp. 254+ix; illustrated. 97s.) London: Henry Kimpton. 1967.

Principles of Steroid Analysis. By Sidney L. Dale, M.S. (Pp. 137+x. 67s. 6d.) London: Henry Kimpton. 1967.

Plastic and Reconstructive Surgery of the Eye and Adnexa. Proceedings of the 2nd International Symposium. By Byron Smith, M.D., John Marquis Converse, M.D., Donald Wood-Smith, F.R.C.S.Ed., and Margaret F. Obear, M.D. (Pp. 548+xx; illustrated. £11 19s.) London: Henry Kimpton. 1967.

The Uncertain Nervous System. By B. Delisle Burns. (Pp. 194+viii; illustrated. 65s.) London: Edward Arnold. 1968.

Atlas of Infant Surgery. By J. Eugene Lewis, Jun., A.B., M.D., F.A.C.S., F.A.A.P. (Pp. 258+viii; illustrated. £9 9s.) London: Henry Kimpton. 1967.

Atlas of Roentgenographic Positions. 3rd edition. By Vinita Merrill. In three volumes. (Pp. vol. 1: 309+xxi; vol. 2: 312-526+vii; vol. 3: 528-878+vii; illustrated. £20 18s. 6d.) London: Henry Kimpton. 1967.

Handbook of Fractures. By Edgar Lee Ralston, B.A., M.D., F.A.C.S. (Pp. 299+ix; illustrated. 97s.) London: Henry Kimpton. 1967.

Diagnostic Clinic si Radiologic in Pediatrice. In three volumes. By Professor Alfred Rusescu, Dr. Joan Balaban, and Dr. Valeriu Popescu. (Pp. Vol. 1: 519; vol. 2: 525-985; vol. 3: 993-1457; illustrated. No price given.) Bucharest: Editura Didactica si Pedagogica. 1967.

The Value of Cytotoxic Agents and Anabolic Steroids in the Treatment of Advanced Malignant Disease. Symposium at the University Department of Surgery, Royal Infirmary, Sheffield, under the auspices of the Sheffield National Centre for Radiotherapy, 1966. (Pp. 107; illustrated. Free.) Available on request from Organon Laboratories, Crown House, London Road, Morden, Surrey. 1968.

Ergebnisse der Medizinischen Radiologie. Vol. 1. Edited by R. Glauner, A. Rüttimann, P. Thurn, and E. Vogler. (Pp. 180+xi; illustrated. DM. 60.) Stuttgart: Georg Thieme. 1968.

Children of Crisis. A Study of Courage and Fear. By Robert Coles. (Pp. 401+xiv. 50s.) London: Faber & Faber. 1968.

Shaw's Textbook of Operative Gynaecology. 3rd edition. Revised by John Howkins, M.D., M.S.(Lond.), F.R.C.S.(Eng.), F.R.C.O.G. (Pp. 556+viii; illustrated. £7.) Edinburgh and London: E. & S. Livingstone. 1968.

Prostaglandins. Proceedings of the 2nd Nobel Symposium, Stockholm, 1966. Edited by Sune Bergström and Bengt Samuelsson. (Pp. 299; illustrated. £8 15s.) Chichester, Sussex: John Wiley. 1968.

Medical Licensing in America. 1650-1965. By Richard Harrison Shryock. (Pp. 123+xi. 52s. 6d.) London: Oxford University Press. Baltimore: Johns Hopkins Press. 1968.

Handbook of Preventive Medicine and Public Health. By Murray Grant, M.D., D.P.H. (Pp. 242+ix; illustrated. 56s.) London: Henry Kimpton. 1968.

Basic Radiation Biology. By Donald J. Pizzarello, Ph.D., and Richard L. Witcofski, Ph.D. (Pp. 301+x; illustrated. 85s. 6d.) London: Henry Kimpton. 1968.

Oculomotor Imbalance in Binocular Vision and Fixation Disparity. By Kenneth N. Ogle, Ph.D., M.D., Theodore G. Martens, M.D., M.S., and John A. Dyer, M.D., M.S. (Pp. 372+xi; illustrated. £7 8s. 6d.) London: Henry Kimpton. 1968.