

PAEDIATRICS

Pediatrics. 13th ed. By L. E. Holt, jr., R. McIntosh and H. L. Barnett. Pp. xxi + 1395. Illustrated. \$18.00. New York: Appleton-Century-Crofts. 1962.

This is the 13th edition of an American text-book of paediatrics originally written in 1896. It is a good illustration of the enormous advances which have taken place in this branch of medicine. There are no less than 81 contributors to this edition, ranging through surgeons, physicians, neurologists and urologists, to psychologists and dentists. The references are wide and up-to-date, although predominantly American.

The book can be recommended as a comprehensive and authoritative work of reference. M.D.

MEDICINE IN OBSTETRICS

Medical Disorders in Obstetric Practice. By C. G. Barnes, M.D. (Lond.), F.R.C.P. Pp. 302. Illustrated. R4.20. Oxford: Blackwell Scientific Publications. 1962.

The author bases this description of medical disorders occurring in association with pregnancy on his own experience of 22 years as physician to Queen Charlotte's and Hillingdon Hospitals, in which approximately 5,000 women are delivered each year. He has a lucid and eminently readable style. There are wide references to modern literature, but on controversial subjects the author frequently gives wise counsel based on personal experience. Even topics which are usually dealt with fully in standard obstetric works, such as diabetes mellitus and heart disease in pregnancy, are treated in such a refreshingly personal manner as to bring new interest to these subjects.

It can be confidently predicted that this book will find a much wider reading circle than the obstetric house officers and registrars for whom, the author modestly states, it is primarily intended. R.P.D.

TIFOIEDKOORS

Typhoid Fever and other Salmonella Infections. By R. L. Huckstep, M.A., M.D. (Cantab.), F.R.C.S. (Edin.), F.R.C.S. (Eng.). Pp. xvi + 344. Illustrated. R4.20, postage 17½c. Edinburgh and London: E. & S. Livingstone Ltd. 1962.

Die skrywer gee in 334 bladsye 'n uitstekende oorsig van die enteriese infeksies. Dit berus op sy ondervinding van meer as 1,000 gevalle wat hy in Kenia behandel het. Die boek is onderhoudend geskrywe en bied 'n goeie beeld van ons destydse kennis oor salmonella-infeksies, sover dit die kliniese beeld, patologie en etiologie aangaan. Die serologiese deel word kortliks afgehandel, sonder om te veel besonderhede te verstrek. Die skrywer as chirurg ken hier sy grense. Van besondere waarde is die pragtige illustrasies van Peter G. Cull.

Hierdie boek moet vir enige geneesheer, veral in Afrika, aanbeveel word, want dit lees soos ontspanningsliteratuur en verdiep tegelyk die so belangrike kennis van salmonella-infeksies. H.D.B.

INTERNAL MEDICINE

Advances in Internal Medicine, Vol. XI. Ed. by W. Dock, M.D. and I. Snapper, M.D. Pp. 332. \$10.00. Chicago: Year Book Medical Publishers Inc. 1962.

It should be the object of a reviewer to convey to his reader what the content of a book is and how valuable or otherwise a contribution to knowledge it makes. This is difficult to achieve with a book of this kind—which contains eight authoritative articles by different writers, on widely different subjects—for reasons of space, at any rate.

(i) *Hepatic coma*. The author makes it clear that mental symptoms in hepatic cases can arise from a multiplicity of causes and not only through so-called toxic hepatic mechanisms. And when the symptoms are actually 'toxic' in origin, how much must be attributed to portacaval shunt, spontaneous or artificial? There is a full discussion on the chemistry concerned, ammonia, glutamic acid, the pertinent enzymes, etc.

(ii) *The natural history and therapy of acute glomerulonephritis.* Attention is drawn to the important distinction between an acute attack proper and an acute exacerbation in the case of existing disease, which might very well be subclinical. The role of the streptococcus, the value of rest, the question of protein in the diet, of renal biopsy, and of the anti-streptolysin titre are discussed.

(iii) *The viral aetiology of leukaemia.* Fowl leukosis has long been known to be caused by a virus. This paper deals with the evidence for and against the virus aetiology of the leukaemias of other animals and of man.

(iv) *Control of cholesterol metabolism.* The mechanisms by which thyroxine, nicotinic acid, sitosterol, vanadium and 'Mer-29' lower plasma cholesterol, and whether such lowering benefits atherosclerosis, are discussed. It is a serious omission not to mention the grave 'toxic' effects which may result from Mer-29.

(v) *Serum calcium regulation.* It has been known since 1934 that some of the serum calcium is complexed with citrate. Calcium in the cerebrospinal fluid cannot be used as a measure of diffusible calcium. Calcium studies after thyroidectomy are considered. The role of vitamin D, other than its effect on calcium absorption, is discussed. Raised calcium can occur in malignancy even in the absence of osseous metastases. Among other aspects of this fascinating problem which are evaluated, is the evidence that the forces governing the serum level are independent of calcium balance.

(vi) *Analogues and derivatives of thyroxine.* In certain strains of mice, after destruction of the thyroid with radio-iodine, large pituitary tumours develop. Thyroglobulin or thyroxine can prevent the development of these tumours. The biochemical effects of altering the position of some of the iodine radicles of the thyroxine molecule, or of the alanine side-chain, are described. The effects differ considerably in the different functions of thyroxine. Some of the effects of thyroxine can be dissociated by altering its structure.

(vii) *Current concepts of diabetic microangiopathy.* The specificity of the glomerular lesion, which is a factor of the duration of the diabetes rather than of the severity of the disease, is discussed. Parallel studies have been made of renal, ocular and skin vessels. The lesions are not always universal. Alloxan diabetic rats do not show these lesions, even after 11 months, nor do they show microaneurisms after 18 months — with one notable exception! Significant fluorescence in nodular glomerular lesions has been observed in the kidneys of diabetics studied with fluorescence microscopy using crystalline insulin tagged with fluoresceine isocyanate.

(viii) *Metabolism of the normal and failing heart.* Oxygen supply is needed at all times for the heart's energy. For the failing heart oxygen consumption per 100 G. is normal, but the total oxygen utilization may be three times the normal when the heart does not receive enough oxygen. Glycogen is broken down to lactate at a rapid rate. But this pathway cannot produce enough high energy phosphate to keep the level of A.T.P. from falling. In failure the end diastolic pressure is elevated. Why does the heart not respond with increased force of contraction? Impaired contractility of actomyosin bands is suggested. F.F.

DESIGNING TEACHING INSTITUTIONS

Hospital and Medical School Design. International symposium held at Queen's College, Dundee, July 1961. Chairman: Principal Sir Malcolm Knox. Vols. I and II. Ed. by G. H. Bell. Pp. 134 and 129. Illustrated. R8.40, postage 31c. Edinburgh and London: E. & S. Livingstone Ltd. 1962.

These two volumes are the outcome of an international symposium held in Dundee in 1961. Volume 1 presents papers and discussions held during the symposium and volume 2 gives the architectural plans and diagrams of the various institutes.

The holding of such a symposium emphasizes the growing realization of the importance of thorough planning and clear thinking when creating new facilities for medical training, research and the care of the sick.

All participants in the conference were either actively

engaged in planning new teaching centres or vitally concerned in this field of education.

Detailed presentation and planning centres around three new teaching hospitals in the United Kingdom, namely St. Thomas' Hospital, the University Hospital of Wales and the new teaching hospital and medical school at Ninewells, Dundee.

Representatives from the United States of America made valuable contributions, particularly those from the Stanford Medical Centre, the University of Washington Medical Centre, Seattle, and from the National Institute of Health at Bethesda, Maryland.

Every facet of hospital and medical school planning is discussed from the basic design of ward units to all the ancillary service units of the hospital, operating theatres, student teaching facilities, animal quarters, the design of research laboratories and also planning procedures.

It was of interest that most of the basic requirements for planning which were stressed at this conference have been adopted and put into practice during the planning of the new medical school and the teaching hospital for the University of Stellenbosch and the Provincial Administration of the Cape.

A planning committee representative of all interested parties, and including the architect and a full-time coordinator is an essential prerequisite. Basic to the design of such institutes are the educational requirements for undergraduate and post-graduate students and the research space which should be made available. There was general agreement that there is a rising demand for routine and research laboratories and that this might be generously provided. It is also stressed that the medical school should be 'embedded' in the hospital, and thorough thought must be given to the closest possible integration of the various activities of the medical school and hospital.

The highest possible measure of adaptability and flexibility must be achieved. To a great extent this means standardization of the various units so that they may be used according to changing needs.

Valuable as these two volumes are to those who are interested in the field of medical education and planning and design of training centres, it does become obvious too that there is no complete agreement about the exact requirements. A great deal of experimentation is still required, and the difficulties are enhanced by the fact that there is a continually changing pattern of medical fashion and practice.

Furthermore, it must also be admitted that local conditions may greatly influence the design of the hospital and medical school, and the requirements in South Africa from many points of view are quite different from those in the United Kingdom or the United States. The concepts and ideas which are put forth in these two volumes cannot be directly applied in another centre. It is evident too that years of planning are necessary, and that in other countries as in South Africa, funds are limited and when the building structure is actually commenced it may take as long as 8-12 years for the completion of such an institution. A.J.B.

SCOLIOSIS

Curvatures of the Spine. By E. D. W. Hauser, M.S., M.D. Pp. viii + 190. Illustrated. \$9.75. Springfield, Illinois: Charles C. Thomas, 1962.

This book introduces yet another method of attacking the problem of scoliosis. The aetiology and pathology of scoliosis are dealt with fairly briefly, and in the well-written chapter on the classification of scoliosis, the author discusses the importance of scoliosis of metabolic origin, and emphasizes that concomitant medical treatment should run parallel with corrective endeavour. The principle of treatment is based upon Sherrington's Law of Action, that the body always tends to assume the upright position. The author corrects the secondary mobile lumbar curve, both anteroposteriorly and laterally, and maintains fixation, in a series of plaster-of-paris jackets.

These are replaced by plastic shells, which extend to just below the apex of the primary dorsal curve.

It is claimed that by this method profitable correction of the dorsal curve can be gained. Treatment is accompanied by exercises and rest periods.

The results are demonstrated in the form of a series of clinical photographs, which certainly appear to be impressive. Unfortunately there is a dearth of radiological evidence to support the improvements shown by the photographs. The format, illustrations and references are satisfactory.

C.W.C.

PHARMACOLOGY

An Introduction to Pharmacology. 2nd ed. By J. J. Lewis. Pp. xii + 926. R6.30, postage 27c. Edinburgh and London: E. & S. Livingstone, 1962.

This book concentrates on site, mode and type of action of drugs. It meets the needs of science students studying experimental pharmacology, and is valuable to medical students, bridging the gap between pre-clinical and clinical studies. It should stimulate original investigation in pharmacology.

N.S.