

## Reviews

### THE KIDNEY

*The Kidney: Structure and Function in Health and Disease.* By Professor Homer W. Smith, Sc.D., M.S. Oxford Medical Publications. (Pp. 1,049; 153 figures. £5.) New York and London: Oxford University Press (Geoffrey Cumberlege). 1951.

This book embodies the results of many years' study of renal function by an acknowledged master of the subject. In no branch of medicine has knowledge increased more rapidly during the past quarter of a century than in the science of nephrology, and it has long been impossible even for the specialist to keep abreast of the subject in all of its many aspects. The need for a comprehensive and up-to-date survey of what has been learned about the functions of the kidney since the publication in 1926 of Cushny's *The Secretion of the Urine* has therefore long been felt. In this, his latest book, Dr. Homer Smith ably and amply fulfils the need. In a series of brilliant and balanced studies the author continues the story from Cushny's to the present time. There can surely be little that is known about the functions of the kidney that is not to be found in this invaluable work.

It would not be possible in a brief review even to enumerate the many problems so fully and carefully considered here, though mention may be made of some. Perhaps the outstanding advance in the knowledge of renal function in recent years is the recognition of the importance of the conservative, as distinct from the eliminative, activities of the kidney. The author properly emphasizes this throughout the book, and also the prominent role of sodium in renal economics. Renal clearances and their implications are exhaustively discussed, as is to be expected of one who has himself contributed so much to our understanding of them. He squarely faces the vexed questions of renal circulation and innervation, though some of the conclusions reached about the former will not be accepted by all.

This is a book for the expert. The nephrologist and the research worker will find it indispensable. There are no fewer than 2,300 references, and an adequate subject index concludes the volume. In writing it, Dr. Homer Smith has placed the profession, and through it a large section of suffering mankind, incalculably in his debt, and he is to be congratulated on a very remarkable achievement.

A. A. OSMAN.

### SURGEONS' EXPERIENCE

*The Surgical Practice of the Lahey Clinic.* By Members of the Staff of Lahey Clinic, Boston. (Pp. 1,014; 784 illustrations on 509 figures. £3 15s.) Philadelphia and London: W. B. Saunders Company. 1951.

This volume presents a record of ten years' work in a great American clinic, and it offers the peculiar advantage that in that period the methods adopted have been deliberately standardized and are therefore unusually uniform. They may thus be accepted as the conclusions reached by an important body of surgical experience. The whole field of surgery is covered and in every section the newest and most advanced methods are described. The records of 25,000 operations for disease of the thyroid are a testimony to the solid foundation on which these methods are founded and the scale of the surgeons' experience. Only a great organization could have coped with such numbers and reduced their analysis to useful terms.

The volume opens with a magnificent series of articles on the thyroid gland and neck, beautifully illustrated and packed with new material. Every detail is described with precision, and the reader is left in no doubt about the procedures or the reason for their adoption. Founded on a vast experience, it forms by far the most important section of the whole volume. The next section is on the modern

surgery of the chest, including the oesophagus, lungs, and heart. It contains much of interest; some of the work is still in the experimental stage and final solutions are by no means determined. Of other articles those on total gastrectomy, on ulcerative colitis, and on stricture of the bile ducts are of great interest, while the series of chapters on the surgery of the brain, the spinal cord, and the sympathetic nervous system reach a high level and deal with many new problems.

But the volume must be studied as a whole to gain any appreciation of the vast amount of original material it contains. It is essentially a work appealing to the expert, and there must be few experts who will not gain from its close study. It provides indeed a frank record of great achievement for which every surgeon will be grateful. It is well produced and beautifully illustrated.

HENRY SOUTTAR.

### NERVOUS CONDUCTION

*The Electrical Activity of the Nervous System.* By Mary A. B. Brazier, B.Sc., Ph.D. A Textbook for Students. (Pp. 220; 96 figures. £1 5s.) London: Sir Isaac Pitman and Sons. 1951.

This book, which is described as a textbook for students, is admirable. It is clearly written and is readily intelligible to those whose knowledge of electricity and of mathematics is slight. The author surveys all aspects of electrical activity in the nervous system, describing the various experimental findings without going into details of the techniques used, which, as she says, can be learned only in the laboratory. Where there are differences of opinion—as, for example, the method of propagation of the nerve impulse—the reasoned arguments in favour of the rival theories are given without prejudice.

The best chapters in the book are those on conduction in peripheral nerves, and the author clearly explains the classical work of Gasser and Erlanger on the varying rates of conduction in fibres of different sizes. Some account is given of the perplexing subject of transmission at synapses, and of electrical activity of the spinal cord and of the organs of special sense, while the last four chapters are on the electrical activity of the brain. The chapters on cortical response to peripheral stimulation and on the normal human electroencephalogram are good, but the chapter on the abnormal electroencephalogram might well be omitted in the next edition. This subject is too large for discussion in a short chapter and hardly falls within the scope of a book on the normal nervous system. There is an excellent reference list at the end of each chapter to encourage further reading.

This book will be essential for all students reading for degrees in physiology, and will be of great value to those students and teachers of neurology who lack the time or inclination to keep up to date with original work on the electrophysiology of the nervous system.

J. W. ALDREN TURNER.

### HYGIENE AND DIETETICS

*Hygiene, Infectious Diseases, and Dietetics.* By Dennis H. Geffen, M.D., D.P.H., and Susan Tracy, M.R.C.S., L.R.C.P., D.P.H. (Pp. 276. 9s. 6d.) London: Longmans, Green and Co. 1952.

This small textbook covers the subjects as detailed in the syllabus of the General Nursing Council. But, quite apart from nurses in training, a wide variety of professional people—dietitians, welfare workers, almoners—also require a fairly detailed knowledge of hygiene, and this book can be highly commended to them. The writing is good, so that it is easily read, and where necessary the text has been amplified by good line illustrations. Any doctor who gives a series of lectures on hygiene or dietetics will find this a useful volume. It will guide him on how to arrange his course and on what is required in it.

THOMAS ANDERSON.