Reviews

THE BRAIN IN EPILEPSY

Epilepsy and the Functional Anatomy of the Human Brain. By Wilder Penfield, O.M., C.M.G., M.D., F.R.S., and Herbert Jasper, M.D., C.M. Chapter XIV by Francis McNaughton, M.D., C.M. (Pp. 896+xv; 314 illustrations, 8 coloured plates. £5 15s.) London: J. and A. Churchill Ltd. 1954.

This large volume, which is a sequel to *Epilepsy and Cerebral Localization,* written by Penfield and Erickson in 1941, presents material collected at the Montreal Neurological Institute since Dr. Jasper joined Dr. Penfield there in 1938. It deals, through detailed fact and copious illustrations, with the experimental neurosurgery and human electrophysiology that these workers have undertaken in that time. The historical background of their subject is also summarized.

The importance of the work can be judged from the fact that before the second world war, when this work began, to record directly from the cortex of man was a remarkable event and to stimulate it electrically an isolated experiment. Dr. Penfield's greatest achievement has probably been to secure such close co-operation from hundreds of patients who, having simply local analgesia of the operation area, have been able to describe their experiences under cortical stimulation and to help in hours of clinical and electrophysiological recording. Everyone who is concerned with cerebral physiology will wish to study the detailed observations included in this volume. As the methods and circumstances of recording are also fully described they can be collated and interpreted by the reader himself. This must have been the authors' intention, as they suggest in the preface, for such a wealth of fact, including the invocation by stimulation of every sensation, most movements, and some of the emotions which man experiences, cannot be interpreted by one school or in one era.

Roughly, the first part of the book considers epilepsy, especially from the neurosurgeon's point of view; the last sections deal with clinical, surgical, and electrophysiological techniques; and the larger middle portion presents the observations made by Dr. Penfield and his team of workers. The method employed is to illustrate a chapter with relevant case histories, though these differ from those usually found and from clinical texts in their intimate nature. They include photographs of the stimulated brain at operation, with verbatim accounts of important observations made by the patient or one of the team. Epileptic experiences are reproduced and past events invoked by cortical stimulation, and the psychologist and philosopher can make of it what he will. That this wealth of accumulated observations cannot yet be logically integrated is apparent in those sections of the book dealing with memory or the concept of a centrencephalic mechanism.

Although "the dedication of this book to Hughlings Jackson is prompted by the knowledge that many of the conclusions reported here were long ago the surmise of the founder of the English School of Neurology," there is surely still a long way to go before the facts presented can lead to consistent conclusions which would have been acceptable to him. It is this rather than any conclusions suggested which makes the book so valuable and provocative. It is particularly welcome to those who have followed Dr. Penfield's work through the years, for its publication coincides with his retirement from the Chair at McGill.

DENIS WILLIAMS.

ATOMIC MEDICINE

Atomic Medicine. Edited by Charles F. Behrens, M.D. Second edition. (Pp. 632+xiv; illustrated. 84s.) London: Baillière, Tindall and Cox, Ltd. 1953.

The development of atomic energy has introduced entirely new medical problems in connexion with many of its potential uses and abuses. The atomic industries require health precautions of a novel kind which are already highly developed; the clinical and experimental use of isotopes and of nuclear radiations is constantly yielding new methods of investigation and therapy; and nuclear weapons can cause widespread radiation hazards in a variety of different ways. This is the broad subject, or rather the group of subjects, which is designated "Atomic Medicine" and discussed in detail in the second edition of a valuable work originally produced in 1949, largely by members of the medical and scientific staff of the United States Navy.

In many ways this is an important book, and particularly for its account of severe radiation injury and for the practical survey of health precautions in atomic industries. These are unfamiliar fields of medical responsibility on which it is useful to have the available information so well assembled. The section on particular isotopes is sometimes rather more superficial, perhaps because a large field, which has been the subject of several excellent textbooks, is here attempted in a few chapters. The bibliography of some chapters shows signs of inadequate revision since the 1949 edition, although in the work as a whole both the references and the tabulated material are of considerable value for reference. Inevitably in a composite work by different authors there are reduplications and omissions, but the planning and editing are usually careful and good, considering the rather disconnected subjects that the book attempts to cover. Parts of the chapter on "Survival Methods in Atomic Disaster" are somewhat trivial or naive, but a picture emerges which is coherent and practicable. Readers of this book will, incidentally, enjoy the conception of "the World War II figure of the 'air-raid warden' idly swinging his baton or flash-light during an 'alert' or a 'blackout,'" and agree that this figure needs replacing.

This book is important to those concerned with nuclear radiation and shows clearly to what extent the biological hazards are serious and are controllable.

E. E. POCHIN.

TROPICAL MEDICINE

A Manual of Tropical Medicine. Edited by Thomas T. Mackie, M.D., Colonel M.C., A.U.S.(Retired), George W. Hunter III, Ph.D., Colonel M.S.C., U.S.A., and C. Brooke Worth, M.D. Second edition. (Pp. 907; illustrated. 60s.) Philadelphia and London: W. B. Saunders Company. 1954.

In tropical medicine the size of a textbook has always been of special importance, for those working in this field are likely to travel and to need a textbook while doing so. A volume which covers the subject-matter in the minimum of space has therefore a very special appeal. This one is intended not to be a voluminous work of reference, but to contain sufficient detail to be an authoritative guide to those practising tropical medicine. It is of readily transportable size, it is packed with up-to-date, well-presented information of a high degree of accuracy, and it covers all the diseases likely to be encountered by a practitioner in the Tropics. To deal in detail with such a wide range of diseases is now beyond the scope of any small group of authors, and the editors are to be complimented on calling upon twenty-four contributors to help them.

As is right in an American publication, special emphasis is given to diseases of the tropical parts of the New World. American enthusiasm for the use of antibiotics has in places been allowed to obscure the value of older but highly effective standard remedies. Thus it is said of emetine bismuth iodide, which outside America is regarded by the majority of workers as being the most effective drug for the treatment of amoebic dysentery, that it and similar preparations are now seldom necessary or desirable.

Diseases of military importance are also given special attention, and the fact that the work is up-to-date is emphasized by a section on the recently described epidemic haemorrhagic fevers. Unfortunately nutritional diseases, which to tropical peoples are of tremendous importance, are dealt with inadequately. Sprue is classed as a nutritional disease, and to it and all other diseases in this section a mere