physiology, but it is a pity the description of testing visual acuity in young children is so inadequate.

Part II is a lively presentation of 45 case reports which cover the more important neuro-ophthalmological diseases of childhood. Each case report includes multiple-choice questions—and easy access to the author's answers. Inevitably, some of this is contrived, as are some of the discussions of differential diagnoses. For example, the Laurence-Moon-Biedl syndrome would hardly spring to mind in a consideration of retinitis pigmentosa if the patient did not also have at least some of the other developmental abnormalities characteristic of that condition. An immense number of facts are presented in this well-digested and readable account. The worst dangers inherent in a didactic approach are avoided by inclusion of key references throughout, and the book thereby gains in the authority which springs from the author's sound training in Miami.

It deserves wide reading by ophthalmologists and those specially concerned with neurological disease in childhood.

JOHN WILSON

PHARMACOLOGY OF THE PERIPHERAL AUTONOMIC NERVOUS SYSTEM By Oliver Carrier, Jr. (Pp. 132; illustrated; £4.70.) Year Book Medical Publishers: Chicago. (U.K. distributors: Lloyd-Luke: London).

The interest of the reader of this book is quickly aroused by the historical introductions to most of the chapters. The author not only gives the background to the development of our knowledge, but also the way in which the origins of pharmacology frequently lie in folklore. It is helpful to be able to look up particular drugs, and find details of their chemistry, information which is frequently lacking in such textbooks. There are many features, therefore, which make this a worthwhile book for reference.

A book must be considered, however, in terms of its value to those for whom it is intended, and Dr. Carrier says in his preface that 'this volume is written primarily for medical students'. Although in many universities pharmacology is taught as a separate discipline, the subject is becoming increasingly clinically orientated and this book has deficiencies in this direction. The division of chapters includes ones on muscarinic blocking drugs and other sections are devoted to nicotinic actions. Most clinicians are less familiar with the actions of these drugs than those of acetylcholine itself, and this approach should perhaps be avoided in a medically orientated text. It is sad to report that the only clinical parts of the table of contents are pressor agents, cardiac stimulants, treatment of anaphylaxis,

bronchodilator agents, and nasal decongestants. The table of contents gives no other suggestions of the clinical importance of the book. The reviewer, putting himself in the position of the student, turns to the index, but this again fails in its clinical orientation. The major functions of the autonomic nervous system, such as sweating and blood pressure regulation, and even sub-divisions of hyperhidrosis and hypohidrosis for the former subject, or hypertension or hypotension for the latter, are not mentioned. Surely this book might be expected to include this information. Indeed many omissions can be found. The value of propantheline for sweating disorders; or the use of carbachol in micturition do not gain a mention. Hopefully at least the cover of drugs would be satisfactory, but there are even omissions in this respect, and cocaine, for example, is not discussed. References are given at the end of each chapter, but are usually not referred to in the text, and many of the references are to whole books, which again is hardly useful to medical students for whom this book is primarily intended.

Dr. Carrier has produced a book which may be useful alongside more commonly used short reviews in this subject. It is a pity, however, that he did not include more clinical information, or write the book with a clinical colleague.

RALPH E. JOHNSON

THE SLEEPING BRAIN Edited by M. H. Chase (Pp. 537; illustrated; \$15.00.) Brain Research Institute: California. 1972.

At a congress about sleep in 1971 short symposia were held on such topics as the neural circuitry of sleep, computers in sleep research, sleep deprivation, and sleep disorders. The opening papers and all the discussions are published in this book. The ephemeral value of a volume of proceedings can be improved by an index and this volume has a comprehensive one.

The book is in no sense an introduction to the subject. Specialists argued with specialists. I doubt whether many specialists will still want to read it three years later and cannot readily see just who will want to read it. There are perhaps people who enjoy for bedtime reading the naturalness of unrehearsed exchanges such as, 'I'm really frightened about what you are coming up with!', but others of us can do without the padding. To this reviewer interest lay in the section on sleep phylogeny—the sleep of South American marsupials had been as unfamiliar as the information that a healthy horse will sleep standing up for as long as a week after a frightening experience. So, yet another publication of proceedings that cannot be recommended as vital to the library.

IAN OSWALD