published symposium is distant. Kuru, scrapie, and various afflictions of mouse and ape are described together with their experimental transmission. The original meeting was incidentally supported in part by the National Multiple Sclerosis Society Inc. However, these fringe topics comprise the most stimulating part of the collection. There are useful summaries of neuronal and axonal responses to toxins and trauma and reviews of neuron histochemistry and electron microscopy, which are easily accessible to the non-specialist. The scope of the symposium is perhaps belied by its title, but potential readers should not be discouraged by this. They should, however, ensure that the book is properly bound, as the review copy had 30 pages of text missing.

IVAN T. DRAPER

HEAD INJURED MEN By A. Earl Walker and Franco Ercolei. (Pp. vii + 118; 1 figure, 51 tables. \$7.50.) Thomas: Springfield, Ill. 1969.

This is a statistical report on more than 300 servicemen who were assessed, most of them by direct examination, from 10 to 15 years after being injured in the second world war. One intention was to compare those with and without epilepsy in respect of other persisting sequelae and consequently two-thirds of the series had had at least one fit; the remaining third were matched for type and severity of injury with the epileptic group. The whole series is therefore biased towards severe injuries, as the authors explain.

The internal analysis of the epilepsy group is of interest; the type of attack is correlated with neurological deficits, post-traumatic syndrome, EEG and socio-economic adjustment, and the frequency of remission (about 50% after five years) is explored. The remaining chapters consist rather of a catalogue of the 'constellation of griefs' (the authors' felicitous phrase) complained of by these men. After listing the incidence and cross-correlation between the various factors of the post-traumatic syndrome, neurological deficits (including mental impairment), and socio-economic status, the literature on each is very briefly reviewed. But seldom is the contrast or similarity between the authors' series and those previously reported emphasized nor is a critical argument allowed to develop. Perhaps the chief value of the book will therefore be as a source of data for future investigators, who may be bold enough to risk some speculation. The attempt to compare the five year status with that at 10 to 15 years is made only for certain features, but on the whole the authors' conclusion was that there was little improvement after the fifth year, but very little deterioration either. It is characteristic of its American origin that this study should assess socio-economic status by the driving and drinking habits of the men as well as by their occupational success.

CONGENITAL FACIAL ANOMALIES WITH NEUROLOGIC DEFECTS By John A. Aita. (Pp. xv + 336; 392 figures. \$18.50.) Thomas: Springfield, Ill. 1969.

This excellent clinical atlas should find a valuable place in many departmental medical libraries. It has obvious lessons for neurologists, paediatricians, and geneticists and should also interest ophthalmologists, otorhino-

laryngologists, and plastic surgeons. The author chose a formidable task when he endeavoured to tidy up this jungle zone of borderland neurology. In discerning 70 clinical categories of craniofacial anomalies with neurological defects, he has completed a worthwhile enterprise.

His classification is necessarily a general and descriptive one, for little is known of aetiology. If one knew what agents were responsible for disturbance of the first visceral arch, for example, which has much to do with the development of the middle and lower face, light would be thrown on a number of facial deformities. In other categories the embryological derivatives are not focally involved; there may be many types of distal anomalies. Genetic transmission and chromosomal defects play a part in some examples.

Professor Aita has combed the literature and presented his observations in the lucid manner we have enjoyed in his two previous books, *Neurologic Manifestations of General Diseases* and *Neurocutaneous Diseases*. There is a classified bibliography of 64 pages and, taken with the summaries and illustrations of the 70 syndromes he describes, the reader in search of information in this field would almost certainly find it. Indeed, he would probably find himself diverted from his initial search and turning the pages with increasing interest—which is one sign of a good book.

J. D. SPILLANE

MIGRAINE: CLINICAL FEATURES, MECHANISMS AND MANAGEMENT By John Pearce. (Pp. xv + 105; 1 figure, 11 tables. \$7.50.) Thomas: Springfield, Ill. 1969.

This short monograph deals with the mechanisms and management of migraine, and is designed for the use and information of the practising physician. The general physician will be concerned with management and diagnosis. Management is dealt with rather briefly. In the specific treatment of the attack, ergotamine derivatives are rightly mentioned as the mainstay; but for 'interval treatment', methysergide, which is now recognized as playing an important but limited part in prophylaxis, is almost the only drug discussed. In diagnosis the common, and some less common, variants are usefully discussed, and some complications mentioned.

The neurologist will be able to draw on his own views and experience on management and will be more interested in evidence for the aetiology and mechanism of migraine. These are briefly reviewed in the earlier chapters of the book. In this context, the definition of migraine as a single entity becomes important, but the author, perhaps wisely, evades this difficult issue. The pattern of the migraine attack is considered in terms of mechanisms and the biochemical and vascular background is discussed in terms of aetiology. Assessment of biochemical findings is a little uncritical at times; but references are given to the original papers by which the interested reader can guide his views. The book gives a useful introduction to an important subject.

C. W. M. WHITTY

PRIMATES IN MEDICINE VOL. 4: CHIMPANZEE: Central Nervous System and Behavior; A Review. Edited by H. H. Reynolds (Pp. viii + 158, 11 figures, 19 plates. 78s.) Academic Press: London, 1969.

British neurophysiology has hitherto suffered from the restrictions of strict regulations on survival experiments on animals, but there is now an increasing interest in neurophysiological and experimental psychobiological studies on higher primates. Without an established laboratory tradition to learn from, many will welcome this useful little volume, from a series on experimental medicine and surgery in primates. The present volume is from an American aeromedical research laboratory. After a helpful comparative review of the chimpanzee central nervous system there are very practical chapters on research methods such as stereotaxic and implantation techniques and apparatus for psychobiological research. There is also a convenient summary of key references on the growth and development of the chimpanzee and its vision, audition, and other senses, motor behaviour, learning and concept formation, emotion, motivation, social organization and behaviour. This is not an exhaustive treatise, but it is very suitable for experimenters beginning to work with the chimpanzee.

J. A. SIMPSON

HANDBUCH DER ALLGEMEINEN PATHOLOGIE. VOL. 3: ZWISCHENSUBSTANZEN. GEWEBE. ORGANE Part 3: Die Organe. Die Organstruktur als Grund lageder Organleistung und Organerkrankung II. Edited by H. Hager and H. Noetzel. (Pp. viii + 526; 307 figures. DM 278.) Springer: Berlin, Heidelberg and New York. 1968.

This book has a strange title but it is actually about the reaction of nervous tissue to various insults. It is a monumental work written by only two authors.

Part I, by Professor Hager, is called 'General morphological pathology of nervous tissue'. It is not a textbook of neuropathology, but rather one of histology and deals with the normal appearances and pathological changes in nerve cells, glial cells, nerve fibres, and blood vessels. It also deals with the histology of necrosis, gliosis, myelin breakdown, deposits of abnormal substances (senile plaques, calcium corpora amylacea). Part I is profusely illustrated, mainly with excellent electron-micrographs and reproductions of quaint coloured drawings from textbooks and papers of the 1920s. The latter are charming but can be downright misleading—who has ever seen a nerve cell with its two satellites in mitosis as drawn by Spielmeyer (1922)? One man cannot these days have first-hand experience of all aspects of neuropathology and this tells in some of the sections. But it is good to have so much information especially about electron microscopic appearances collected together. There are thousands of references.

Part II, by Professor Noetzel, entitled 'The structure of the central and peripheral nervous system as basis for its function and its diseases', is less satisfactory. There is overlap with the first section and it is not clear on what grounds topics have been selected for discussion. The treatment of most subjects is extremely superficial. There are snippets of neuroanatomy, five pages are devoted to the ageing nervous system, and the influence of the nervous system on skin, skeleton, and muscle is dealt with in less than a page—these organs atrophy when they are denervated. One does not feel like paying a great deal

for a book which tells one nothing about carbon monoxide poisoning except that the globus pallidus is often affected. There are quite useful sections on the effect on the nervous system of diseases of other organs and the lipidoses and other 'inborn errors of metabolism' are discussed.

One wonders whether the days of the expensive and definitive handbook are not over and whether it would not be more useful to publish a 'Recent Advances' series containing reviews, by experts, on selected topics.

S. J. STRICH

DIAGNOSIS OF BRAIN DISEASE BY ULTRASOUND Edited by Kenji Tanaka. (Pp. vi + 164; 169 figures, 14 tables. No price given.) Shindan-To-Chiryo Sha Co: Tokyo, Japan. 1969.

This volume, edited by the professor of surgery, Juntendo University School of Medicine, Tokyo, Japan, consists of seven chapters, written by Professor Tanaka, four medically-qualified members of his department, and a radio-engineer. It would seem that this group of investigators were among the first to use ultrasonic methods in localizing space-occupying intracranial lesions and they give a comprehensive review of the principles involved, of the equipment required, and of the information which can be obtained by A-scope and B-scope echoencephalography. The text includes many illustrative case reports indicating how these methods have been helpful in localizing intracranial tumours and haematomas and in the investigation of hydrocephalus. A note on the use of an ultrasonic needle-type transducer for exploration of the depths of the brain is also included. The book is pleasantly produced and some of the illustrations are of good quality, but unfortunately the authors have not been able to arrange for the text to be carefully checked by an editor with a thorough grasp of the English language. While one must appreciate the difficulties facing those who set out to write a scientific monograph in an unfamiliar tongue, the quality of the prose in this publication is so uneven and at times so obscure that this fact alone detracts considerably from its value. Apart from the resulting lack of clarity, there are parts of the book where misprints occur in such profusion as to be a constant source of irritation to the reader. To read, for instance, on page 1 that '... the U. S. Atomic Energy Commission concluded that the tumor by ultrasonic in human skull is not suitable ...' and on page 2 that 'There were many contraversys (sic) about the reliability ...' can hardly be regarded as a felicitous beginning. Nevertheless, the book contains a good deal of useful information for those who are prepared to take the time to separate the wheat from the chaff.

JOHN N. WALTON

THE CENTRAL NERVOUS SYSTEM. Some Experimental Models of Neurological Diseases. Edited by Orville T. Bailey and David E. Smith. (Pp. xiii + 364; illustrated. £8 10s.) Williams and Wilkins: Baltimore, Md. 1968.

The subtitle of this book, the ninth of a series of Monographs in Pathology from the International Academy of Pathology, reflects the difficulty in classifying this book. It is not a systematic textbook of human neuropathology,