Book reviews

Motor Neurone Disease Edited by F. Clifford Rose. (Pp. 147; illustrated; £7.00.) Pitman Medical Press: Tunbridge Wells. 1977.

It is now some five years since the last symposium on motor neurone disease at the Johns Hopkins Hospital. The present volume is a report on the proceedings of the latest symposium on this condition. The editor has produced a balanced presentation from clinical and epidemiological, pathological and electrophysiological disciplines. The 13 chapters are contained in 140 pages including the references so that each is a fairly short and, in all cases, readable review of a particular approach to the problem. The reader already familiar with the problems of motor neurone disease may find little new information in this book but it does summarise usefully the present state of knowledge of the condition. Some pointers for further research are outlined, the application of studies of axonal transport to motor neurone disease, and the question of slow viruses in the aetiology of the condition. I think, however, that the reader will be left with the impression that, despite the accumulation of much information on the disease, there is as yet little evidence that we are much nearer to an understanding of its aetiology.

This is a clear summary of the present state of knowledge of motor neurone disease and it should certainly be read by everyone who has an interest in that condition.

J. P. BALLANTYNE

Somatic and Visceral Sensory Mechanisms Edited by G. Gordon. (Pp. 182; illustrated; £4.50 in UK, £5.00 elsewhere.) Medical Department, The British Council: London. 1977.

The Medical Department of the British Council has a genius for recognising when a subject is ripe for review because of progress which may not be familiar to the busy practitioner. The planning committee for this number, Professor G. S. Bradley, Professor A. Iggo, and Dr T. P. S. Powell under the chairmanship of the Scientific Editor Dr Gordon, have produced a most interesting account of changing views

and new evidence on sensory mechanisms. Muscle afferent nerves are re-established for kinaesthesia whereas gate control (though still accepted in many aspects) is no longer the dominant theme for pain sensation. Corticofugal control of sensory input is stressed at all levels. Henry Head is recognised for his ideas and insights though his interpretations are not always valid. The exciting advance is the recognition of opioid peptides and morphine receptors. Described only three years ago, the explosion of research in this new field is already such as to require a summary. The possible therapeutic implications are enormous.

Some of the papers are, by reason of condensation, difficult to read, but all repay careful study. A few evenings spent in doing so will be a rewarding refresher course for neurologists.

J. A. SIMPSON

Pathology of Tumours of the Nervous System By D. S. Russell and L. J. Rubinstein. (Pp. 448; illustrated; £25.00.) Edward Arnold: London. 1977.

A new edition of Russell and Rubinstein—still in my opinion the best published account of tumours of the nervous system—is always welcome. There is inevitably a sensation of *déjà vu* while browsing in the new edition, but there are many subtle changes throughout; often only one or two sentences but they all provide some further relevant information. There are also some more obvious changes. Thus the section on the pathogenesis of tumours of the nervous system is considerably larger, and draws attention to the progress that has taken place in recent years in the field of experimental oncology. Some might have wished more detail in this section but the authors, correctly I think, have restricted themselves to a concise but lucid overview of the current situation, and all the important references are there. There are new illustrations; there are, where relevant, more electron micrographs and scanning electron micrographs: and observations on tissue culture are now incorporated in individual chapters. One of my complaints about the third edition was the absence

of any useful account of the so-called intracranial haemangiopericytoma but current views on the nature and existence of this tumour are now clearly presented.

There is little else one can say. The book remains excellent value, despite the increase in its price, and I suppose that the greatest compliment one can pay its distinguished authors is that the fourth edition is even better than the third.

J. HUME ADAMS

The Fine Structure of the Nervous System: The Neurons and Supporting Cells By A. Peters, S. L. Palay, and H. de F. Webster. (Pp. 406; illustrated; £25.25.) W. B. Saunders: Philadelphia, London, Toronto. 1976.

This is much more than a second edition of the work which became a classic in its first form. The three authors put two years into the revision of their review of the subject and in culling the advances up to 1976 produce this new and magnificently presented *nonpareil*. Advanced techniques of freeze fracturing and scanning electron microscopy, autoradiography, and histochemistry are critically discussed from a strong platform of personal experience. Chapters on ependyma, choroid plexus, blood vessels, and peripheral nerve sheath have been included in the new text. About half of the photographs from the original, smaller volume have been retained. The 118 illustrations (with only four diagrams) are magnificent EM plates which define structure and relate it to accepted physiological facts in an economical but thorough text. Where functional relationships are not yet clarified, the authors express the problems with the support of about 1500 well chosen references contained in the final 50 pages.

The layout of the book is logical, beginning with the nerve cell body then its processes and the synapses within the central nervous system and beyond, including the neuromuscular synapses. The section on synapses can hardly be singled out as more valuable than others but the descriptions of the chemical interneuronal synapses will be

referred to over and over again by practical electron microscopists. The functional anatomy of myelin and the processes of myelination are comprehensively treated with comparisons between central and peripheral myelin. The authors' clear focus on controversy is presented nowhere better than in the section on neuroglia where, among many other items, the origins of microglia and phagocytes are identified as worthy of further scrutiny and the completely inscrutable tanyocytes remain so.

This well indexed book will be in constant demand when added to the libraries of EM units.

DAVID DOYLE

Pathogenesis and Treatment of Headache Edited by Otto Appenzeller. (Pp. 217; illustrated; £13.50.) SP Medical and Scientific Books: London. 1977.

When yet another book is devoted to headache, the neurological bibliophile needs some convincing reason to scrutinise its contents. When it contains the distillate of the collected experience of such authorities as Arnold Friedman, Earl Walker, Donald Dalessio, John Graham, and Seymour Diamond the reader's appetite is whetted.

Unfortunately, the invaluable contributions from these worthies is not uniformly maintained. The level of the short clinically orientated essays varies from the anserine to the erudite. The introduction claims that the aim is to provide "an up-to-date review of the pathogenesis and treatment for headache". It also implies that the chapters were the text for some unspecified "course". This may explain the poor standard of writing in some sections which underlines the common error of transposing the spoken to the written word.

The result is seen in many loose and woolly statements, in the uncritical admixture of fact and speculation, and in places in the unwarranted acceptance of unproven hypotheses. Is the Ramsay Hunt syndrome due to herpes of the geniculate ganglion? Are "positive X-ray findings" extremely helpful in the diagnosis of sinusitis? And are tricyclic antidepressant drugs the treatment of choice in muscle contraction headache?

Despite these objections, many of which could be overcome by stricter

editorial penmanship, Dr Appenzeller's book is a success. He has assembled a collection of readable essays which cover a wide area of headache and facial pain, and which, being written by clinicians, ring true to our everyday practice. One of Kipling's better maxims was "outside of his art an artist must never dream". Since the medical scientist has not yet solved the many mysteries of migraine, there is plenty of scope for the clinician's art; and perhaps his dreams may illumine the path of the scientist, or at least point him in the right direction.

Dr Appenzeller's book is well produced with clear illustrations. It is certainly a stimulating and provocative read for a quiet weekend.

J. M. S. PEARCE

Mechanismen der Gedächtnisbildung (Mechanisms of memory formation) By Tilmann Ott. (Pp. 135; illustrated; Dm 39.00.) Veb Gustav Fischer Verlag: Jena. 1977.

This is the latest volume in a series of East German monographs devoted to Brain and Behaviour Research. It contains the results of a series of animal experiments on long-term memory carried out with well established laboratory techniques of behavioural physiology and pharmacology. On the basis of his findings the author argues in favour of a triadic process of "consolidation" associated with molecular and neuronal mechanisms for which there are three corresponding mnemonic stages. The model is further developed to elaborate on the structural and functional basis of two types of engram. The results are clearly presented and would appear to call for replication.

MICHAEL SHEPHERD

Research to Practice in Mental Retardation Volume I—Care and Intervention Edited by Peter Mittler. (Pp. 526; \$24.50.) University Park Press: Baltimore. 1977.

Subtitled *Care and Intervention* this is the first three volumes of the Proceedings of the International Association for the Scientific Study of Mental Deficiency at their 1976 Congress. The book features 58 contributions and includes a 15 page list of papers given, but unpublished.

In the preface, Professor Mittler states his intention to focus on developments of service provision emphasising multidisciplinary treatment, provision of community and residential services and the evaluation of these, so that the needs of the mentally handicapped are met. On the whole he succeeds in this aim although the book—like so many Proceedings—suffers from the varying standard of contributions.

Altogether the book gives a competent survey of current practice although psychiatric services are disposed of in 27 pages. It represents a useful reference work and, in view of its price, will be found principally on the shelves of departmental libraries. There is a good author and a good subject index.

RONALD MACGILLIVRAY

The Effects of Noise on Hearing Edited by Donald Henderson, Roger Hamernik, Darshan S. Donsanji, and John H. Mills. (Pp. 579; illustrated; \$36.00.) Raven Press: New York. 1977. Limitations of space make it impossible to review many books submitted to the Editor, and some must be rejected as too esoteric. This book is of limited interest to most readers of the Journal, but should be brought to the attention of the growing number of neurologists with an interest in auditory function. Based on a symposium, it is a collection of critical essays on the establishment of criteria for relating hearing loss to environmental noise.

J. A. SIMPSON

Notice

1978 Congress of the International Society of Psychiatric Surgery

Papers are invited for the 1978 Congress of the International Society of Psychiatric Surgery to be held at Pine Manor College, Brookline, Massachusetts, USA from 21 to 26 August 1978. The official topic is "Alterations in Brain Function: neurochemical aspects of stimulation and ablation". The last date for the receipt of papers is 1 May 1978, and these should be sent to E. R. Hitchcock, Department of Surgical Neurology, Western General Hospital, Crewe Road, Edinburgh, Scotland.