Book reviews

The Mental Status Examination in Neurology By Richard L. Strub and F. William Black. (Pp. 182; illustrated; \$7.95.) F. A. Davis Company: Philadelphia. 1977.

Appropriate examination of mental status is often neglected, even by those who should be most concerned—that is, neurologists and psychiatrists. Such neglect must stem in part from a lack of experience and confidence in this field, coupled with inability to relate abnormal findings to disordered anatomy and physiology.

This book has been written by a neurologist working in collaboration with a clinical psychologist. The authors' purpose is to emphasise worthwhile methods of examination and link them to underlying anatomical and physiological mechanisms. The three main objectives are first, to enable the examiner to undertake either a brief or detailed evaluation of mental status, second, to identify patients with organic brain disease and often to make specific diagnosis, and third, to identify residual strengths.

The various components of mental status examination are dealt with in separate chapters under the subheadings of terminology, evaluation, anatomy, and implications. The exposition is lucid and the advice practical. Adequate references to guide further reading are given at the end of each chapter. Appendix 1 lists a number of standard psychological tests with brief notes on the indications for, and interpretation, significance, and reliability of each test. Appendix 2 provides a suggested framework for a composite mental status examination.

This book is highly recommended as an introduction to an important but neglected topic.

W. F. DURWARD

Medical Neurobiology Second edition By William D. Willis and Robert G. Grossman. (Pp. 515; illustrated; £19.95.) C. V. Mosby Company: St. Louis. 1977.

This textbook of function and neuroanatomy is most beautifully presented with photographs and diagrams of the

highest quality. The first 85 pages are devoted to a consideration of functional neuroanatomy of the peripheral nervous system with a detailed consideration of the anatomy and physiology of peripheral receptor and effector mechanisms. The reader is led progressively through spinal cord function into the brain stem and its connections with a consideration of investigative techniques in major neurological centres, then through the hypothalamic structures, and finally to the cortex and a consideration of higher nervous system function. Apart from the copious illustrations there is an extensive bibliography at the end of each chapter. A very worthwhile appendix contains details of techniques used in neuroanatomy and neurophysiology. The final 40 pages comprise a most beautifully presented atlas of the brain and spinal cord.

I have read this book with considerable interest and admiration for its content and method of presentation. I consider this one of the best illustrated books on the subject, and find myself frequently referring to the text and diagrams. It can be thoroughly recommended.

J. P. BALLANTYNE

Motor Innervation of Muscle Edited by S. Thesleff. (Pp. 351; illustrated; £9.80, \$21.50.) Academic Press: London, New York, San Francisco. 1976.

The editor organised this book rather than a conference for economic reasons. The result is of more lasting value as he has brought together major reviews by leading research workers, with adequate space for comment and the informed speculation which is so helpful to others. B. W. Fulpus describes the recent remarkable developments on cholinergic receptors made possible by affinity chromatography. Application of this powerful tool to central receptors awaits recognition of suitable ligands. Possible clues may come from clinical cases of toxic encephalopathy. B. Katz and R. Miledi describe the analysis of endplate noise as a new approach to the study of ACh/receptor interaction. J. Heuser on syn-

aptic vesicle morphology and dynamics, R. Rahaminoff on the role of calcium on transmitter release, and L. G. Magazanik and F. Vyskocil on desensitisation at the neuromuscular junction, write on topics which are well understood but still have tantalising gaps. Edith Heilbron describes the effects of immunisation with nicotinic ACh receptor ("experimental autoimmune myasthenia gravis"). Of less interest to clinicians but of major importance to the experimentalist are studies on the receptor proteins of arthropods (G. G. Lunt), excitatory and inhibitory transmission in crayfish (A. Takeuchi), and L-glutamate receptors in locusts (S. G. Cull-Candy) which are about GABA and glutamate transmitters, but studies on these easily accessible synapses must pave the way for similar work on central synapses believed to be present in higher animals. The controversy about neurotrophic functions as distinct from the role of activity with regard to differentiation of muscle fibres is well discussed in two chapters by T. Lömo and E. Gutmann, marred at the very end by ectopia of the references.

J. A. SIMPSON

Understanding the Stretch Reflex Progress in Brain Research Volume 44 Edited by S. Homma. (Pp. 507; illustrated; Dfl.145.00, \$57.95.) Elsevier Scientific Publishing Company: Amsterdam, Oxford, and New York. 1976.

A collection of lectures and presentations at an international symposium held in Tokyo in 1975 is more than usually rewarding owing to the very high standing of the participants. Almost all of the most active researchers on the muscle spindle and its reflexes were present. An opening address by Evarts and Granit on the relations of reflexes and extended movements emphasising polysynaptic stretch reflexes, and a lecture by the organiser (Professor Homma) on frequency characteristics of the impulse decoding ratio between spinal afferents and efferents in the stretch reflex, are followed by 10 papers on muscle spindle and its fusimotor innervation. The dialogue between Barker and Boyd is not yet