matic patient, now not only possible but essential in the
management of families carrying the Wilson's disease
gene, and with treatment which has been completely
revolutionized by the introduction of penicillamine.

This book is a must for all working on metabolic
diseases of the nervous system, for it shows what can be
done for patients with metabolic diseases once the first
vital clues on pathogenesis have been found, but for the
practising clinical neurologist it is certainly not an
essential addition to his library. He may, however, well
find it intellectually stimulating to have for occasional
reading. In all, a well-produced book for which the
editors are to be congratulated.

J. M. Walshe

HANDBUCH DER SPEZIELLEN PATHOLOGISCHEN ANATOMIE
UND HISTIOLOGIE Edited by E. Uehlinger, Vol. IX
part 7: Pathologische Anatomie des Schädels by L.
Burkhardt and H. Fischer. (Pp. 514; 225 figures;

The German handbook has long earned the respect, if
not always the affection, of the medical profession.
Generations of pathologists have had good reason to be
grateful to Henke and Lubarsch for starting their still
unfinished compilation of pathological literature.

Now and again a chapter or volume appears in this
work which rises above the standard of a meticulous and
critical review of the literature, where the author draws
on the wealth of his personal experience and produces
an authoritative monograph often in a field inadequately
covered elsewhere. The present volume on the pathology
of the skull belongs definitely to this category. The skull
is a no-man's land. Bony in structure, it is not strictly
speaking part of the locomotor system and, therefore,
outside the field of the orthopaedic surgeon and the
pathologist interested in diseases of bones and joints. It
is intimately connected with the central nervous system,
the special sense organs and the upper parts of the res-
piratory and alimentary tracts. A large part of it is treated
by the neurosurgeon who thrusts his problems upon a
reluctant neuropathologist, unfamiliar with the specific
problems of bone.

It was the late Robert Rössle who, when editor of
Henke-Lubarsch, conceived the idea of devoting an
entire volume to the pathology of the skull. He did not
live to complete the task, but was fortunate in finding
a worthy successor in Professor L. Burkhardt who wrote
the entire volume with the exception of the chapter on
injuries delegated to Dr. H. Fischer.

After the usual introductory chapters on embryology,
comparative anatomy and general pathology, the author
deals in succession with malformations, including those
affecting primarily the central nervous system, the
craniostases, other dysplastic conditions and the
involvement of the skull in generalized congenital
abnormalities of the skeletal system. This is followed by
chapters on ageing changes, endocrine disturbances,
nutritional deficiencies, Paget's disease, disorders of
circulation and diseases of the haemopoietic system.
Infections and neoplasms, primary and secondary,
conclude Professor Burkhardt's contribution.

It has been the author's aim to avoid repetition and to
omit subjects dealt with in other volumes of the hand-
book. This has led to a very perfunctory treatment of
the histology of tumours—a regrettable omission as not
every reader of this volume has access to the complete
set. A few pages of text and a handful of illustrations
would have rectified this shortcoming without adding
substantially to the bulk or the cost of the volume.

With Dr. Fischer's chapter we are on more familiar
ground already covered in many treatises on forensic
pathology. Needless to say, it is treated with the same
meticulous attention to detail as the other chapters.

It is not an easy book to read, nor is it easy to find the
right answer to any specific problem despite an adequate
index, as the information required tends to get lost in a
wealth of detail. Clarity is not easy to achieve in a work
of this kind. The illustrations which include photographs
of specimens, histological preparations, radiographs
and diagrams, are of high quality throughout. The imposing
list of references is marred by consistent misspelling
of some well-known names, surely an avoidable error in
a publication of this class.

These minor shortcomings do not detract from the
value of this important contribution, which fills a major
gap in pathological literature.

H. Urich

CLINICAL ELECTROMYOGRAPHY By J. A. R. Lenman and
A. E. Ritchie. (Pp. 175; 42s.) Pitman Medical and

Drs. Lenman and Ritchie have written a very lucid and
attractive account of clinical electromyography. It is not
an exhaustive treatise but rather a practical guide which
sets out the indications for electromyography, the
techniques most suitable, and the relevance of the
electrophysiological findings. The first half of the book
deals with methodology and comprises not only electro-
myography itself, but also nerve conduction studies,
strength-duration curves, tests of neuromuscular trans-
mission and electrically induced reflexes; the technique
of recording from single muscle fibres with intracellular
micro-electrodes is described in addition. The remainder
of the book is concerned with the application of these
techniques to various disorders of nerve and muscle.
There are good sections on nerve trauma and nerve
compression syndromes and on the electrodiagnostic
findings in different types of peripheral neuropathy.
Useful classifications of several types of muscle disease
are given together with the characteristic findings in these
conditions; separate chapters are devoted to the facial
nerve and to the ocular muscles. The text is generously
illustrated with photographs of oscilloscope tracings and
the plates are of particularly high quality. In general the
records are helpful though the demonstration of poly-
phasic potentials is sometimes unsatisfactory. The
authors do not claim to provide a complete bibliography
but even veteran electromyographers will be grateful for
many of the three hundred well chosen references. On the
whole there is very little to disagree with in the text,
although occasional errors are evident—for example, the
F reflex is mentioned twice instead of the H reflex
(p. 57). Again, a sentence on p. 132 could be misconstrued
to imply that all the acetylcholine released at an end-plate
by a nerve impulse was derived from a single synaptic vesicle. Finally, the classical concept of the motor unit in healthy muscle being composed of subunits has recently (1968) been disproved. Notwithstanding these relatively minor criticisms the book can be strongly recommended and certainly be compulsory reading for neurologists. In particular it should prove of considerable value to the generation of clinicians mentioned by Professor Simpson in the foreword, who have not grown up with the vast amount of electro-diagnostic information revealed by technical and conceptual advances.


Seldom has a medical book given me so much pleasure. Here are 31 essays which Dr. Critchley had prepared for various special occasions and, reprinted here, they reflect the breadth of his interests and the elegance of his style. Although the primary title concerns the study of the central disorders of speech, much of this fascinating book is concerned with 'other aspects of language'. The similarities and contrasts between English and other modern languages; demotic speech and regional accent; communication between animals; the origins of speech and the philosophy of language are among the subjects which he explores.

This is not a textbook on the management of aphasia. It is a book to read in the quietness of one's room and as such it will stimulate the imagination and give great enjoyment.

I. T. DRAPER


Of the monographs on the anatomy and function of the human nervous system as the basis for localizing diagnosis in neurological disease, this book is by far the best. It is nearly 60 years since Bing published his Kompendium and the work has undergone many changes since then. It is now the work of Dr. Haymaker and his collaborators, though some of the original material remains. As it is 12 years since the last edition in English, the book will be less familiar to juniors than it should be. It is costly but worth every penny. Naturally a reviewer will disagree with some points, but for the most part the teaching is orthodox and contemporary. Few in Great Britain would consider that the 'extensor' toe reflex is an anomaly in the flexor withdrawal reflexes. The least useful chapters are those on EMG, EEG, and other diagnostic methods additional to the clinical examination. Short condensations are rarely helpful and often misleading. But for the correlation between anatomy and physical signs this book is quite excellent.

J. A. SIMPSON


Books upon clinical aspects of the autonomic nervous system are few and this subject also receives scant consideration in most textbooks. Nevertheless physicians now recognize that many patients may present with disorders arising from its dysfunction. These include orthostatic hypotension, which occurs commonly in elderly people, and accidental hypothermia, which was highlighted as an emergency of frequent occurrence by the Report of the Royal College of Physicians of London in 1966. The introduction of L-dopa in the treatment of Parkinsonism has made neurologists very aware of autonomic dysfunction in this and other disorders, both before and after treatment.

Dr. Appenzeller sets out to provide an introduction to basic and clinical concepts and provides a good background for anatomical reading and also comparative anatomy. His book is less adequate on the physiology of the system and some of the tables and figures are unhelpful. For example, Table 1 in chapter 2 occupies a whole page without adequate explanation. Nevertheless Dr. Appenzeller writes from a wide experience and his book brings together much useful information.

It must be unusual for a reviewer to have to comment upon the scope of a book with such a definite title. J. N. Langley wrote in The Journal of Physiology 'I propose the term "autonomic nervous system" for the sympathetic system and the allied nervous system of the cranial and sacral nerves and for the local nervous system of the gut'. Neurologists will therefore be surprised to find chapters upon sleep and wakefulness, respiration, disturbances of water and electrolyte balance, circadian rhythms, and the pineal gland. A more useful breakdown might have been made on a clinical basis. For example, it is unhelpful for a clinician to find that disorders of sweating are mixed, with no textual division between anhidrosis and hyperhidrosis.

In spite of these somewhat carping comments, Dr. Appenzeller is to be congratulated on producing a useful work of reference. It will be of value to those developing an interest in a section of neurology which has been much neglected.

RALPH H. JOHNSON

BOOKS RECEIVED


