Book Reviews

THE STRUCTURE OF AMMON'S HORN By Santiago Ramón y Cajal. Translated by Lisbeth M. Kraft, with a foreword by Paul D. Maclean. (Pp. xxii + 78; 16 figures. \$5.50.) Thomas: Springfield, Ill. 1968.

Ramón y Cajal was not the first to undertake a microscopic study of the cells and processes of Ammon's horn, but his contribution (published in 1893 in a journal with very limited circulation) was, and still is, of major importance. Between the time he began this work in 1888 until he communicated his results to the Sociedad Espanola de Historia Naturel in December 1892, he had interrupted its progress in order to complete other papers but he had been spurred on to resume his studies by an important publication on the hippocampus by Luigi Sala, a pupil of Golgi, and also another by Schaffer. During those intervening months there had been significant contributions to the literature of neurohistology, so that Ramón y Cajal's study on Ammon's horn probably benefited from the delay, allowing more reasoned and up-to-the-minute comments on the likely physiological implications of his findings. His writing on this occasion was as usual factual, succinct, highly critical, and fair to other workers.

Von Kölliker who, it will be recalled, took the trouble to learn Spanish before going to seek out Ramón y Cajal and persuade him to attend a meeting of kindred spirits in Berlin, translated this paper into German. It, too, is now as scarce as the original one. It is fortunate therefore that we now have the work available in English and we must be grateful too to Dr. Kraft for a valuable list of references relative to that time.

Ammon's horn has intrigued anatomists and philosophers since the Renaissance and doubtless long before then. Dr. Maclean's foreword constitutes a most valuable but brief review of up-to-date work and current thought on this topic and it is accompanied by a well-selected bibliography.

W. H. MCMENEMEY

THE WORLD OF RAMÓN Y CAJAL—With Selections from his Nonscientific Writings By E. Horne Craigie and William C. Gibson. (Pp. x + 295; illustrated. \$9.75.) Thomas: Springfield, Ill. 1968.

This attractively produced volume contains a selection of the writings of Santiago Ramón y Cajal translated by Dr. Horne Craigie and Dr. William Gibson. The extracts from the autobiography, *Recollections of My Life*, while they may fail to satisfy the Ramón y Cajal enthusiast who has not yet read the complete work, are well chosen and include most of the more dramatic and surprising happenings in this eventful life. There are selections from other favourites, including *Rules and Counsels for the Scientific Investigator*, *Charas de Café*, and an address delivered in 1905 on *The Psychology of Don Quixote and Quixotism*. This pen-happy knight errant of neurology could, after all, hardly have refrained from commenting

on the state of contemporary Quixotism as he saw it and would have wished it.

His aphorisms, culled from the daily sessions in his beloved café club, are on varied topics and mostly philosophical. Some such as those on love and women are not without humour. The one referring to décolletage and other forms of anatomical revelation in the female is in fact as pertinent today as when he committed his remarks to paper. If the dictates of the fashion czars continue thus, he asks, what unpublished extension of anatomy will remain for the future husband? Particularly entertaining are the disparaging comments on human beings which the author puts into the lexogenic cortex of a slave-keeping ant (*Polyergus refescens*) in a letter to his busy little mother.

The first part of this volume takes the form of a travelogue prepared by Dr. Horne Craigie when he set out with his wife to discover landmarks on Don Santiago's road to fame in Barcelona and Madrid. This account of Petilla, Valpalmas, Jaca, Panticosa, Ayerbe, Huesca, Zaragoza, and Valencia is supported by simple drawings by the author, and is full of charm and colour. It contrasts the stark barrenness and poverty of the mountain villages in still remote north-west Aragon with the unbaked marked squares, tiled patios, gardens, and hallowed cloisters of Southern towns with all the gaiety and loveliness of their ancient fiestas.

This instructive book will be a delight for the general as well as the medical reader, in search of pleasing entertainment, portraying, as it does, the story of that 'wayward creature, excessively mysterious, secretive and unlikeable' (the master's own words) who 'finally chose the cautious path of histology, the way of tranquil enjoyment' and built solid foundations on which so much of modern neurology has been securely built.

W. H. MCMENEMEY

INFECTIONS OF THE NERVOUS SYSTEM, A.R.N.M.D. Vol. 44.

Edited by H. M. Zimmerman. (Pp. xv + 495; illustrated. £10 10s.) Williams and Wilkins: Baltimore, Maryland. (Edinburgh agents: Livingstone.) 1968.

This book contains the proceedings of the Association for Research in Nervous and Mental Disease, which met in New York on 4 and 5 December 1964. The approach to the problem of infections of the nervous system is excellent, which is to be expected from the high calibre of scientists and physicians taking part. The first four chapters are particularly instructive in the basic problems involved in the causation of inflammatory reactions occurring in the central nervous system. They cover the possible origin of the mononuclear cells in inflammatory exudates, the role lymphocytes may play in increased permeability, and the immunological mechanisms generally involved in inflammation, taking into account the particular situation of the central

nervous system. For those who are not accustomed to looking at electron microscopic pictures, it is sad that the plates in the chapter on ultrastructural aspects of infections in the central nervous system have not got more labels on the prints to indicate exactly what one is supposed to be looking at. However, the electron microscope prints throughout the book are of high quality. It is useful to have an instructive account on the role pleuro-pneumonia-like organisms may play in neurological disturbances and also an account of infections with histoplasma and cryptococcus. These latter infections are being more frequently diagnosed these days because of greater awareness of their existence. It is also nice to see a chapter on a much too neglected subject 'The Water and Electrolyte Shifts in the Central Nervous System'. A whole range of other infections are covered, mostly of viral aetiology. The fascinating problem of slow, latent, and temperate viruses is well covered, but this brings me to a criticism of the book. This whole field of investigation of infections of the central nervous system has been so rapidly advancing over the last five years that I find it disappointing that what was presented at a meeting in December 1964, should take till 1968 to be published. This must detract from the value of the book and, as the editor, Dr. H. M. Zimmerman, rather sadly comments at the beginning of the chapter on 'Vaccinia Virus Deoxyribonucleic Acid': 'It has not been brought up to date and, therefore, does not take into account the large amount of information which has been obtained during the intervening years as a result of the efforts of many workers in this rapidly developing field.'

This is a very well presented book and will be useful to both research workers and clinicians. There are excellent bibliographies to the chapters throughout. It would have been even more valuable published with less delay, even though it might have lost some of its 'finish' in the process.

H. E. WEBB

A MANUAL OF ELECTRONEUROMYOGRAPHY By Hyman L. Cohen and Joel Brumlik. (Pp. xi + 178; illustrated. \$10.50). Hoeber Medical Division, Harper & Row: New York. 1968.

A good handbook on electromyography and related techniques would be welcome. The senior workers in clinical neurophysiology have grown up with the subject and do not require one, but the new generation of neurologists, orthopaedists, and physical medicine workers do need a good summary of the present state of the art. There is an expanding literature in orthopaedic journals of papers using electromyographic techniques in an entirely uncritical way indicating ignorance of the basic principles. It is for that reason that the present book cannot be recommended. For the complete beginner it gives a step-by-step account of the methods used in electromyography, nerve conduction studies, and older forms of electrodiagnosis, but does not provide the information on neuromuscular physiology, volume conduction theory, and instrumentation to enable an isolated worker to interpret what he sees or even to use another manufacturer's equipment. The illustrations of myotonia

and myasthenia are not typical and the latter—which is used twice—suggests failure to ensure that the stimulus was supramaximal and that the hand was immobilized.

The techniques described are those of ten years ago. There is no information on averaging techniques, methods of quantitative electromyography, or even how to reduce the noise level. This is not the handbook we have been waiting for.

J. A. SIMPSON

LECTURE NOTES ON NEUROLOGY 2nd edn. By I. T. Draper. (Pp. ix + 231; illustrated. 22s. 6d.) Blackwell: Oxford and Edinburgh. 1968.

The second edition, three years after the first, speaks for the popularity of this little book. It is divided into three traditional parts: applied anatomy and physiology, bedside skills, and description of disease. The first two parts, for the purpose of this book, can hardly be faulted. Presumably it is read by undergraduates as a reminder of what they have already learnt, later on special occasions by them in practice, and by teachers of medicine wishing to revise quickly unaccustomed material for tutorials or lectures. For these purposes the book says enough and says it clearly. However, fears must be felt for a reader whose only source of neurological information this might be, and the dust jacket suggests that this might be the case. There is too little indication of the relative frequency of diseases and of their urgency, so that, by inference, the reader might believe that disseminated sclerosis was equalled numerically by syringomyelia or that giant-cell arteritis and vitamin B₁₂ neuropathy each carried no more alarm for the doctor than most neurology. To reproduce lecture notes for an already committed audience is one thing; to present them as an introduction is another and, with this volume, not without danger of distortion. There are surprising omissions, too, and ones that could be said to hide important principles and to withhold some of the difficulties of clinical life. For instance, the concept of transient ischaemia of the brain gets insufficient mention and the overwhelming importance of the psychological aspects of pain (particularly facial) are merely hinted at. This kind of deficiency makes for poor remembrancing and a misleading tutor. One understands that the confined space of this small volume demands economy of expression as well as pruning of material, but this should not be achieved at the expense of making such a frail vehicle for those whose journey in clinical neurology is to depend much on this book alone. If this is not possible within these narrow bounds, then let the space be more.

C. H. EDWARDS

CRANIOFACIAL ANOMALIES: PATHOGENESIS AND REPAIR Edited by J. J. Longacre. (Pp. xii + 389; illustrated. 170s.) Pitman Medical: London; and J. B. Lippincott: Philadelphia. 1969.

This well-illustrated and attractive book is based on papers presented at an international conference in May 1966. In the preface (unsigned) we are told, in that breathless prose which we have come to recognize, that it was 'the most stimulating, intense and provocative meeting they had ever attempted . . . a meeting of the