its contents which makes it difficult for the reader to find his way around and by introductory sections to some of the chapters which are frankly confusing. Clarity of exposition seems to have been sacrificed for the sake of brevity, a sacrifice which need not have been made for such a short book. As the book is presumably (the authors are not clear on this point) intended for the surgeon who operates on the spine relatively infrequently, the indications for the various operations, and postoperative management and complications, could perhaps have been dealt with at greater length. Especially in the field of degenerative disease and trauma, the occasional spinal surgeon can do a great deal of mischief and nothing would have been lost by devoting more space to spelling out the complexities and problems involved in assessing patients prior to surgery. Many patients remain dissatisfied after spinal surgery and this is more often because they should not have been operated on at all, or the wrong operation was performed, than because the technique of the actual operation which was carried out was faulty.

RSM WILLIAMS

Mental Retardation and Congenital Malformations of the Central Nervous System. By Josef Warkany, Ronald J Lemire and M Michael Cohen, Jr. (Pp 459; £47.50.) London: Year Book Medical Publishers Ltd, 1981.

This handsomely set out reference book provides a valuable adjunct for both pathologists and clinicians to the already available atlases of mental retardation syndromes. Based on a series of review articles previously published in the annual review of "Mental Retardation and Developmental Disabilities" on topics such as microcephaly, hydrocephaly, hydroanencephaly, megalencephaly and anomalies of the corpus collosum, it has been extended to include other congenital abnormalities of the central nervous system malformations with an account of the most important dematoglyphic findings and chromosomal syndromes.

With the increasing use of CT scanning in the diagnosis of mental retardation and the early detection and prevention of in-born errors of metabolism and other environmental causes, it seems likely that we shall continue to see a change in the differential pattern of morbidity in severe mental retardation with a resurgence of

interest in congenital malformations of the central nervous system of a non-lethal type which will present an increasing challenge both diagnostically and from the point of view of prevention. For this reason this volume is assured of a place as a standard reference for paediatric neurologists and other clinicians and teachers working in the field of mental retardation.

It is difficult to evaluate the coverage of such a work until it has been well used in practice, but the extensive and up to date bibliography augurs well. Perhaps the most obvious criticism of such an expensively produced volume is the poor quality of some of the illustrations, but hopefully as its reputation becomes established this will be rectified in future editions.

JOHN CORBETT

Psychopharmacology of Sleep. Edited by David Wheatley. (Pp 256; \$39.44.) New York: Raven Press, 1981.

Somnopharmacology! The title is a little misleading. The book is really a symposium proceedings from the British Association of Psychopharmacology meeting in Exeter in 1980. The contents are divided into two equal parts, the first concerned with the nature of sleep, and the second with the effects of drugs on sleep. The book is not a comprehensive manual of the pharmacology of hypnotic and central stimulant drugs nor a practical prescribing guide but a selection of well-edited essays on topics as diverse as sleep peptides, air travel, benzodiazepine receptors, and new hypnotics. It begins with a marvellous account of sleep in animals by Bruce Durie. Of the snakes, EEG records are available only for the African python, whilst only the small caymans of the crocodillians have been investigated, perhaps not surprising facts! Durie points out that much of the animal data is fragile, as with the Brazilian tapir's sleep which was characterised by observing two animals for one day with twitching taken as evidence for paradoxical sleep. The search for sleep-inducing substances has taken three approaches, the investigation of herbs and plants, the study of conventional neurotransmitters, and the search for endogenous hypnotoxins, peptides, or sleep factors. Koella and Druker-Colin discuss the last of these topics although it is sometimes difficult to evaluate all the evidence such as the injection

by Pavel *et al* of 10^{-6} pg of either synthetic or partially purified pineal vasotocin into the third ventricle of cats who then curl up in the corner of the cage and fall asleep. It is evident that the existence of a specific peptide that causes sleep has yet to be conclusively shown. Alain Reinberg discusses chronopharmacology; thus purgatives and enemas are most effective given in the morning, whereas narcotic drugs are usually best at night. The second section of the book is a little more pedestrian although of greater clinical interest with stress on the value of the new short acting benzodiazepines and a discussion by Scott of daytime drowsiness, concentrating on EEG findings rather than practical therapy of narcolepsy, hypersomnolence and sleep apnoea. The book ends with the question "do we need hypnotics?" The night worker who lives in Concorde's flight path answers "Yes". A curate's egg book, not essential but fun.

JD PARKES

Electrical Stimulation Research Techniques. Edited by Michael M Patterson and Raymond P Kesner. (Pp 370; £25.80; \$39.00.) London: Academic Press Inc, 1981.

The articles collected together in this volume present refreshingly straightforward and clear summaries of various electrical stimulation techniques from microstimulation of the cerebral cortex to grid shock stimulation of the whole animal. Only two chapters (one of them co-authored by one of the editors) stray into a literature review of experimental results. The other authors limit themselves to detailed explanations and descriptions of the techniques involved, with much useful discussion of the limitations of each method. The advice in most instances is the result of many years of experience in the field and one finishes the book with the feeling of having attended eleven good undergraduate lectures on nerve stimulation. As a result, this volume should be of interest to anyone about to begin research in this field, and will be refreshing to those who have become so familiar with the techniques they use that they overlook some of their limitations.

The book can be divided into four main sections. It begins with two chapters on the theoretical aspects of extracellular and intracellular stimulation, presented at a level that will be intelligible to anyone unfamiliar with the subject. The next three