

## Reviews

**Design for a Brain.** By W. ROSS ASHBY. 2nd Ed. 1960. London: Chapman & Hall. Pp. 286 + ix. Price 42s.

The second edition of this well-known book has been considerably revised. The author points out that the last two thirds have been rewritten, but there have been many changes in the first third as well. Detailed comparison with the first edition shows that the explanations have been made very much more clearer and detailed, and some unnecessary paragraphs have been cut out.

The concept of a feedback system has been fundamental in physiology since the work of Claude Bernard. It was taken up by the communications engineers and developed into the science of cybernetics. Since then it has returned to physiology and psychology, to their considerable enrichment. If it is assumed that the function of the central nervous system is to maintain homeostasis of the organism in relation to its environment, then it can be shown that a feedback mechanism is sufficient to explain behaviour, including adaptive behaviour developed in the lifetime of the individual organism. This is the theme of this book, and the argument is developed step by step in a fashion easy to follow. The rigorous proofs are confined to the Appendix at the back of the book, so that those readers who feel uncomfortable in the presence of matrix algebra, the theory of groups and calculus, can read on happily. This book is invaluable to those who wish to understand modern developments in the theory of the central nervous system and in psychology.

The author must be congratulated on the clarity of his style which makes the reading of this small book so simple and pleasurable.

MAX HAMILTON.

**Handbuch der Neurochirurgie.** Edited by H. OLIVECRONA and W. TÖNNIS. Volume 4, Part 1. Klinik and Behandlung der raumbeengenden intrakraniellen Prozesse 1. Contributions by P. BRANDT, J. GERLACH, T. GORDH, F. J. IRISGLER, O. KLEINSASSER, A. MATTOS-PIMENTA, T. RIECHERT, G. SIMON, W. UMBACH and W. VOLLAND. Berlin: Göttingen, Heidelberg, Springer Verlag, 1960. Pp. 782. 271 illustrations (some coloured). Price DM 386.

The English word "Handbook" which suggests a slim volume to slip into the pocket, always seems an inadequate and inaccurate rendering of the German "Handbuch", and this new publication by Springer Verlag provides no exception.

This book, which runs to nearly 800 pages, is the first of Volume IV of the "Handbook" (or rather "System") of Neurosurgery, which is under the general editorship of Professor Herbert Olivecrona and W. Tönnis. When the whole project is finished it will be a real treasure-house for reference and it is unfortunate that there is no comparable book written in English.

This part deals with general principles of operative technique, malformations, tumours and inflammatory conditions of skull bones including the orbit, hydrocephalus, and animal parasites and fungus infections. Intracranial tumours are not dealt with; the title may be somewhat misleading in this respect, because it refers to the whole of Volume IV which will comprise four parts in all, aneurysms and angiomas, and tumours being dealt with respectively in parts II and III which have yet to be published.

The introductory section deals with general principles of operative technique. Preoperative care and preparation are discussed with particular emphasis on electrolytes and hormonal balance, points which are now of increasing importance in the assessment of a patient's condition and progress. Details of theatre technique, positioning of patient, instruments and operative approach might be thought rather elementary, but are presumably necessary in a complete survey such as this. A helpful section follows on the postoperative care with the management of possible complications that may arise, again with stress on water and electrolyte control.