was on her. This again may well have led to the family's preferring Betty to Anne who accordingly took more and more a back seat.

The illness that Anne underwent at sixteen was probably of critical significance, and we must attribute to it the eventual considerable difference in physique between the twins. It may perhaps also have partly caused the greater retardation of development in intelligence in Anne's case. The slight difference between the twins also became critical in the psychosexual field. When Betty started to take a normal interest in the opposite sex at 14, Anne did not follow her lead but took the attitude of the rejected lover. According to Dr. Debenham, who undertook some psychotherapy for Anne and also had a number of interviews with Betty, both twins show some homosexual features in the psychological field, but in Anne's case they are more marked. Anne's development took an overtly homosexual form, as is shown by the style of dress she assumed, although it is not suggested that she has at any time engaged in homosexual practices.

Taking the illness from the psychodynamic point of view, we may say that Anne's hysteria was a true flight into illness when she found that, do what she could, she could no longer retain her old place in her twin's affections. This excessive attachment, common among uniovular twins but very rare between ordinary sibs or binovular twins, seems to have played a dominant role in the course of Anne's long illness; if she had not been born a twin she might never have become a hysteric.

I wish to express my thanks to Dr. Margaret Ferguson, for her psychometric assessment of the twins, to Dr. Debenham and to Dr. Elithorne for taking and comparing their finger prints. I am especially grateful to Dr. Elithorne, Slater for his help and encouragement in the preparation of this report. In addition, I have to thank the Medical Committee of the National Hospital for their permission to publish this case.

REFERENCES

BOOK REVIEWS


This monumental work marks yet another milestone in the rapidly evolving history of neurophysiology. Following his early contributions to neuro-anatomy, Rafael Lorente de Nö turned his attention to the detailed structure of the nervous system and produced his studies of the cyto-architecture of the cerebral cortex. This consideration of structure led him to investigate nerve cells functioning in groups, from which evolved his concepts of neuronal circuits and reverberatory systems recently developed by others into the theory of "feed-back" and "oscillator systems."

Finally, Lorente de Nö's enquiries narrowed down to the functions of neurones as individuals: and these two volumes embody the results of this work. Filled with details of hundreds of personal experiments, they also record the observations of nearly every student of neuronal function.

Firstly, a consideration of the effect of changes in the external environment upon the function of individual nerve fibres leads to important conclusions regarding the role of ionic balance and gaseous exchange in this function. The studies of the electrical properties of nerve, posed against the physico-chemical background of the earlier chapters. These experiments were carried out on isolated frog nerve preparations, most of the studies consisting of the measurement of the changes in demarcation potential under varying physical and chemical conditions. Particular stress is laid on the properties of nerve fibres considered as core conductors, and upon polarization of nerve fibres, factors which have previously been given scant attention. From these results the author, in collaboration with Dr. L. Davis, proceeds to a mathematical analysis of his findings and the formulation of the properties of nerve in mathematical terms. This is of importance in forming an interesting corollary to the studies of workers such as Rachovsky, McCulloch, and Pitts.

The question of the role of acetylcholine in nerve function is discussed at length. A nice balance is maintained between the rival schools of thought, the views of both Nachmansohn and his colleagues on the one hand, and of Gerard and of Eccles on the other, being presented against the background of Lorente de Nö's own fundamental experiments. But the principal theme of these volumes is the mutual interrelation which exists between intracellular metabolism on the one hand, and the electrical expression of that metabolism on the other: the studies detailed in this work bring us closer to an understanding of the causal relations between these two aspects of neuronal activity.

However, there are certain adverse features which, to the ordinary reader, will present great obstacles to
the understanding of these volumes. Thus the author has employed a special terminology in describing the details and the results of his experiments, and this has to be mastered before the work can be understood. In addition there is such a wealth of experimental detail that anyone not familiar with similar laboratory studies, the principles emerging from experiment may be buried beneath a mass of detail. No neurophysiologist can, however, afford to overlook these volumes. As a record of unstinted personal endeavour and loyalty to the highest standards of scientific study, this work is almost unique. It will take its place, without doubt, as one of the classics of existing neurophysiology, and will point the way to further studies of the fundamental physical and chemical properties of nerve.


The appearance of nine editions in twenty-seven years indicates the usefulness of this book to the student. There are, however, several features which are not entirely satisfactory. The book is too detailed for the beginner (over seventy reflexes are described), while the comments on disease and diagnosis which form a large part of it sometimes seem to be out of place. Many of the illustrations are poor; others take up a whole page where a quarter of this space would have sufficed (for example, figs. 4, 5, and 6). An increase in the number of good illustrations would greatly add to the value of the book, while space could be provided by omitting much of the commentary. For example, two and a half pages are devoted to a "Short Survey of Pituitary Syndromes" but there are no illustrations of visual field charts.

The illustration of relatively simple tests, such as the examination of the ankle jerk, or of the voluntary power of the more important muscle groups, would be helpful to the student. The M.R.C. War Memorandum, No. 7 shows the possibility of illustrating clinical tests in a way that is worth considering when a book of this kind is being prepared.


Knowledge of the anatomy and physiology of the nervous system is advancing so rapidly that many clinical neurologists find their knowledge of these subjects inaccurate and out of date. This readable book will help to bring the clinician up to date. The contents provide an outline of recent developments, and references are given which will provide more detail if this is required. Contrary to common belief, a better knowledge of anatomy will not necessarily make the clinician a better diagnostician. Many, however, feel that the practice of neurology is incomplete when it is merely a diagnostic and therapeutic exercise. Every clinical case should be scrutinized for the light it may cast on anatomy or physiology, and knowledge of recent anatomical discoveries is essential to such an approach. There is no doubt, therefore, that this book by Dr. Brodal will be welcomed by both physicians and students interested in neurology.


Out of four cases of Sturge-Weber-Krabbe's disease observed in Greece since 1934, three have been examined by the author and constitute the basis of the present report. They are written in Greek and translated into English. In the third chapter special reference is made to the various clinical forms of the disease, including the bi-, tri-, and monosymptomatic forms, the formes frustes of French authors.

The disease or syndrome is a rare congenital developmental dysplasia, and by Jan van de Hoeve and his associates is claimed as a fourth division of their group of "phakomatoses." A very remarkable feature noted by the author in his first case is the presence of buphthal-mus on the side contralateral to the side of cerebral lesions. In the same case were: extensive (bilateral) facial návus, prognathism of simian type, obesity, stunted body growth, and congenital hip dislocation. Against the use of the term "névose aménia" to include all cases of the disease is the fact that in the author's case there is no aménia, the child being of exceptionally good intelligence though subject to very frequent transient minor epileptic attacks. In the third case intense periodic hyperemia of the ear on the angiomatous side of the face is a hitherto unrecorded feature. Cutaneous telangiectatic and pigmentedary lesions are present in a brother of the first patient as also in a brother of the third patient. The thesis constitutes a great contribution to the subject, and includes an extensive bibliography.


This important work will be invaluable, especially to younger neurologists who are largely ignorant of the many important contributions to the subject of thirty or more years ago. L. Marchand has devoted much of his life to the study of epilepsy, and this treatise represents not only the product of long clinical experience but also a most valuable collection of references. The authors show the zeal of the enthusiastic collector in amusing details of epileptic rarities both from their own clinics and also from the literature.

There are many sections of interest, including the effect of brain disease such as chorea on the epileptic; many remarkable examples of emotion precipitating a convulsion; epilepsy precipitated by stimulating an injured nerve or scar; urogenital epilepsy; and deformations of body image as an epileptic phenomenon. The psychological aspects of epilepsy are considered in great detail.

In some respects this book is not up-to-date. For example there is little attempt to correlate modern neurophysiological knowledge with the clinical facts, unless it is in the mention of recent American developments in the study and surgical treatment of traumatic epilepsy. These omissions, however, will not reduce the great welcome this book must have from those interested in epilepsy.


This simple, sensible treatise on a subject of great importance in the everyday lives of many patients, by a surgeon and a psychiatrist both having unequalled
experience in this field, will be generally welcome. The discussion of the innumerable treatments that have at one or another time been tried for impotence is balanced and critical; and those methods which have proved valuable are related to their several indications in a way which gives their due significance to aetiology and diagnosis.

**BOOKS RECEIVED**

(Review in a later issue is not precluded by notice here of books recently received.)


