Book Reviews

SCIENCE AND MAN By Lord Brain, F.R.S. (Pp. 109. 18s.)
Faber & Faber: London. 1966.

The rare combination of qualities which enabled Russell Brain to accomplish so much in various fields of thought and action is recalled to our memory by this posthumous work. It consists of four lectures. The first, his Presidential Address to the British Association, deals with the scientific approach to behaviour in man and other animals, and the implications it carried for our future. The second, the Linacre Lecture at Cambridge, is an imaginary discussion by a neurologist, a psychologist, and a philosopher on that topic of perennial interest to Brain, perception. The third lecture considers consciousness as the culmination of mind, manifested as the focus of the organism's reaction to its environment. The fourth lecture, delivered to the American Association for the Advancement of Science, examines first the prejudices which are currently entertained regarding science and scientists, and secondly the limitations of any view of human beings which reduces them to physico-chemical systems or bundles of psychological trends and impulses. For Russell Brain the sciences on the one hand, and literature, art, and history on the other, are respectively the public and the private, the general and the unique approaches to the study of man.

MEDICINE AND GOVERNMENT By Lord Brain. (Pp. 22.
7s. 6d.) London Publications: London. 1967.

This Tavistock Lecture for 1966 on Medicine and Government, never delivered and published posthumously, has become Lord Brain's valediction. It is worth reading both for the facts it contains and for its general approach to the problems of the state and medical practice. He had unique qualifications for this essay. His active membership of a number of key committees concerned with National Health Service development, and his own personality lend weight to what he has to say. His factual review and the dispassionate tone he chooses to deliver it, are far more effective than the strident arguments of contending politicians.

The role of successive governments, Conservative and Labour, appears as lamentable. Obtrusive deficiencies in the service were met by the *ad hoc* creation of committees and commissions whose findings and advice were largely ignored. Even the recommendations of the original Spens Committees were repudiated when convenient. One result has been a service which has so little attraction for the doctor that 33% of the annual output of our medical schools seem to prefer practice elsewhere: a service which successive governments rightly claim to be a magnificent ideal and a major social revolution from which there is no turning back—and on which by government decision a smaller proportion of the national income is expended than in any member of the European Community.

However, Lord Brain offers his criticisms and his constructive suggestions for improvement as one who accepts the principles of the N.H.S. and recognizes its great achievements. He argues for more flexibility and decentralization in organization; for a rapprochement between general practice and hospital medicine and an end to the isolation of the general practitioner, one of the gravest of present disadvantages; for some fusion of teaching and non-teaching hospitals; and for a career structure for junior hospital staff. The suggestion for an all-party Parliamentary Standing Committee on the Health Service, if developed, could be especially profitable.

On the financial side he makes a plea for more rational and humane priorities and the diversion of some part of our vast armament expenditure to services for education, research, and health. But he reminds us, and the reminder is timely, medicine is a great and growing tree of which the Health Service is but one among many branches. Much of what he has to say has been said before. In this form and from this man it will convince many who would otherwise dismiss it as prejudiced discontent.

C. W. M. WHITTY

KRANKHEITEN DES NERVENSYSTEMS (Vol. V, part 1, HUMANGENETIK, EIN KURZES HANDBUCH IN FÜNF BÄNDEN) By P. E. Becker and G. Koch. (Pp. xii + 557; illustrated. DM. 174.) Georg Thieme Verlag: Stuttgart. 1966.

It is 25 years since the appearance of the previous comprehensive *Handbuch* of Human Genetics in the German language, edited then by Just and Lange. The volumes of the present series, edited by Professor P. E. Becker, follow a similar plan, this volume being devoted to neurological disorders, though, unfortunately for the pocket of the neurologist, the myopathies appeared in Volume III, part 1, and epilepsy, migraine, and narcolepsy have been allocated to the volume on psychiatry, which is yet to be published.

By 1940 the study of human genetics in Germany was seriously handicapped in two ways. First, the co-operation of 'tainted' families was often minimal in view of their fears of sterilization under the race laws, and it is of interest that such an attitude still persists to this day (see for instance *Humangenetik* I, footnote p. 444). Secondly, underlying genetical theories were influenced by political notions, a defect from which this volume is largely free, though traces of it can still be detected—as for example in the (admittedly somewhat half-hearted) support given to concepts such as status dysraphicus. On the whole, however, a positive stand has been made, particularly by the senior author, for the contribution that genetics can make towards the nosology of neurological disorders. A fault in the structure of a particular polypeptide is now thought to be the specific

basis for each genetically-determined disorder. This means that a condition that runs in some families as an autosomal dominant must differ chemically as well as genetically from a similar condition that in other families is inherited as a sex-linked recessive. The chemical difference is qualitative and not quantitative, and the apparent continuum, when intermediate clinical forms bridge the gap between typical examples of two distinct conditions, is not a true continuum but an artefact due to the variability in expression of each distinct condition.

Koch writes on the diffuse scleroses, the phakomatoses, syringomyelia, extrapyramidal disorders, and certain disorders of exogenous or obscure aetiology; Becker on the spino-cerebellar ataxias, spastic paraplegia, the spinal muscular atrophies, and disorders of the peripheral nerves. Clinical and genetic data are combined in order to classify the various disorders, and considerable clarification is made thereby, as for instance in the ataxias. The reader is likely to differ in only one important instance from the authors, who consider as distinct disorders l'acropathie ulcéro-mutilante familiale and hereditary sensory radicular neuropathy, whereas present-day opinion in this country is that the latter is the pathological basis of the former. Differential diagnosis, synonyms, analogous conditions in animals, and a detailed genetic analysis of each disorder are valuable features: perhaps the most valuable is the very extensive bibliography. There are numerous illustrations, some of them (for example, of the conjunctival telangiectasia in the Louis-Bar syndrome) informative, but many (for example, of 'ring-spot' disease of tobacco leaves) inappropriate in a book about genetics and serving merely to inflate the price. The volume is beautifully produced, and misprints are few and far between (though Dejerine has attracted accents to his name). It should occupy an important place in every medical library.

THE BRAIN VASCULAR SYSTEM By H. A. Kaplan and D. H. Ford. (Pp. viii + 230; 176 figures. 70s.) Elsevier: Amsterdam, London, New York 1966.

This book presents the anatomy of the cerebral blood vessels in the light of our knowledge of their embryology. However, the rostral end of the neuraxis undergoes such radical changes during development that it may be reasonably doubted whether this approach makes it easier or more difficult to understand the anatomy of the blood vessels. For example, to consider the posterior cerebral and posterior communicating arteries together as one branch of the internal carotid, while admitting that the posterior cerebral artery receives its major blood supply from the basilar, seems needlessly confusing.

This apart, the anatomical section is of great value. A judicious selection and juxtaposition of photographs of brain dissections, radiographs of injected specimens, and diagrams convey a picture of the anatomy of the cerebral blood vessels with an excellence not commonly achieved. A reader would gain great profit simply from studying the illustrations with their captions. Added to this are brief but useful sections on the meninges, the formation and circulation of cerebrospinal fluid, and the blood-brain barrier in relation to the vascular system.

RESEARCH AND CLINICAL STUDIES IN HEADACHE Vol. I. An International Review. Edited by A. P. Friedman. (Pp. 221; 69 figures; 7 tables. Sw.F/DM 41.50. Karger: Basel and New York. 1967.

This is the first volume in a series intended to keep both the clinician and the research worker informed on current theories of causation, and methods of treatment, of headache.

It contains a discussion of the mechanism of vascular pain and the actions of vasoactive substances, including serotonin (5HT), by Professor Sicuteri. Drs. Curran, Hinterberger, and Lance review very fully the physiological actions of 5HT, and its possible relation to migraine and present their observations on the metabolism in migrainous subjects. The properties of the serotonergic antagonist methysergide are discussed, and full account of the results of its use in migraine prophylaxis is given. Dr. Graham reports in detail on the incidence of inflammatory fibrosis (not always reversible) during methysergide treatment. The incidence of this, and of other side-effects, and the observed failure to show a beneficial effect in some controlled trials is perhaps not sufficiently stressed, but these sections otherwise provide most useful summaries.

In other sections the psychiatric aspects, and therapy of muscle tension headaches are described by Drs. Martin, Rome, and Swenson. Dr. Hoefer discusses the implications of abnormal electroencephalograms in patients with headache, particularly the present confusion of ideas on the significance of paroxysmal patterns in migrainous subjects. There is a useful description of menstrual headache by Dr. Greene, with a brief survey of the hormonal mechanisms concerned. Finally, Dr. Carroll summarizes some clinical aspects of migraine and its variants.

The list of references following each section is excellent. The volume serves a most useful function in bringing together detailed information on particular aspects of very discursive subject.

JUDITH M. HOCKADAY

THE ANATOMY OF THE BRAIN AND NERVES Vols. I and II. By T. Willis. Edited by W. Feindel. (Vol. I. Pp. xx + 104; illustrated. Vol. II. Pp. xii + 192; illustrated. \$37.50.) McGill University Press: Montreal. 1966.

This is a collector's piece for which we must thank the Montreal University Press, the Editor, Dr. William Feindel, and also Sir Charles Symonds for renewing or enlarging an interest in Willis as neurologist in his Harveian Oration of 1954. The book is appropriately dedicated to him and to Sir Charles Sherrington, who saw Willis as a key figure in carrying concepts of the nervous system out of the Middle Ages, and put this view of him before a wider public.

The present work is in two volumes. The first, for which Dr. Penfield writes a foreword, is a scholarly introduction to Willis and his times with some useful bibliographical details. Dr. Feindel has here enlisted expert collaborators in medical history and bibliography.

The second volume is a facsimile reproduction of the 1681 English translation by Samuel Pordage of the *Anatomy of the Brain and the Description and Use of the*