

Reviews.

BLOOD TRANSFUSION.

The book by Dr. GEOFFREY KEYNES on *Blood Transfusion*¹ will be welcomed by many. Before the war the transfusion of blood was rarely practised in this country, partly because there was no simple and reliable technique, and partly because serious consequences had been known to follow the operation. During the war the advantages of blood transfusion became so apparent that many new methods were introduced, but none of the earlier methods came into general use because they were too elaborate. Far more work had been done in America than in this country on this subject, so that when the American doctors arrived in the Expeditionary Force they brought information and experience of the utmost value. It was seen that the harmful results of some of the earlier transfusions were attributable to the neglect to ensure the compatibility of the blood of the donor with that of the recipient, and the dissemination of information on this point led to the systematic testing of the donor's blood on the basis of the work carried out by Jansky in 1907 and Moss in 1910. The simplified technique for this investigation which the Americans brought with them rendered it possible for it to be done as a matter of routine. But of greater importance still was the painstaking work of Oswald Robertson, to whom Geoffrey Keynes pays a fitting tribute when he writes, "to him a very large number of men indirectly owe their lives." Robertson's citrate method of indirect transfusion so simplified the whole procedure that blood transfusion was adopted almost universally in the army as the natural treatment for haemorrhage and shock, and during the last year of the war blood was even given under the primitive conditions existing in field ambulances and first-aid posts. Since the war the operation has been applied in the treatment of many of the haemorrhagic diseases with strikingly good results, whilst it is, of course, the recognized procedure of choice in cases of haemorrhage and shock met with in civilian surgical practice. The general public has become familiar with the idea, thanks to the sensational headlines frequently appearing in the press and the records of the "heroic sacrifices" of that seemingly ever-ready donor, the policeman!

There are two classes of medical men who will find the present book extremely useful. As is apt to happen with all new methods of treatment, blood transfusion has been credited with revitalizing power in all the diseases to which flesh is heir, but in this book the medical practitioner will find an account of the various conditions in which blood transfusion will do good and the indications for its administration. Those also who wish to learn a good way of giving blood will find here a satisfactory method of performing the transfusion, together with information as to the attendant dangers and instruction in the testing of the blood group of the donor.

The book commences with an historical review of the subject, in which are recorded many interesting experiments carried out in the seventeenth and eighteenth centuries, in some of which man was transfused with the blood of animals such as lambs. The various medical and surgical indications for transfusion are then presented, and in the following chapter the dangers of blood transfusion are related. A chapter is devoted to the physiology and pathology of the blood groups, and finally the different methods of direct and indirect transfusion are described. No account is given of the method of preserving blood and injecting the washed preserved red cells, a plan that was often of value in the war and which might sometimes find application under peace-time conditions.

The subject of blood transfusion has hitherto only been dealt with in the medical literature of this country by isolated communications concerning special points. The present book gives a clear account of the whole subject; it is well written and enlivened with many happy quotations, and by accounts of not a few entertaining incidents.

THE FUNCTION OF THE FRONTAL LOBES.

In this book, the English version of which has recently appeared with the title, *The Mechanism of the Brain and the Function of the Frontal Lobes*,² Professor BIANCHI has

¹ *Blood Transfusion*. By Geoffrey Keynes, M.A., M.D. Cantab. Oxford Medical Publications. London: H. Frowde, and Hodder and Stoughton. (Demy 8vo, pp. 166; 13 figures. 8s. 6d. net.)

² *The Mechanism of the Brain and the Function of the Frontal Lobes*. By Professor Leonardo Bianchi. Authorized translation from the Italian by James H. Macdonald, M.B., Ch.B., F.R.C.P.S. Glasg. Foreword by Professor C. Lloyd Morgan, LL.D., D.Sc., F.R.S. Edinburgh: E. and S. Livingstone. 1922. (Roy. 8vo, pp. 348; 62 figures. 21s. net.)

produced a volume which cannot fail to interest neurologists and psychologists alike. From such a high authority much may be expected, and the reader will not be disappointed, for he will find here not only a full account of the author's own experimental and clinical work on the functions of the frontal lobes, with his conclusions, but in addition a detailed review of the whole subject from both the historical and evolutionary aspects.

Beginning with comparative anatomy and a general survey of the evolution of the nervous system from the lowest to the highest forms, the author leads us on to the more modern discoveries of the localization of function in the cerebral hemispheres, which are considered from the experimental, pathological, and clinical aspects. Flechsig's theories of "associative zones" are strongly criticized, and it is interesting further to note that the author evidently does not agree with Marie's views on the subject of aphasia, but adheres to the more classical opinions.

The second chapter is chiefly concerned with an historical survey of the different theories formulated as to the functions of the frontal lobes. The two next chapters are devoted to the anatomy and physiology of the frontal lobes in different species, and to a defence of the experimental method of investigation. Then follows a detailed account of the author's own experimental work, extending over many years. In the next chapter the effects of electrical stimulation of the frontal lobes are considered, especially in relation to movements of the head, eyes, and ears, and the author advances the hypothesis that such movements of the eyes and pupils are connected with the mechanism of attention. An important anatomical chapter on the associative paths between the frontal lobes and the sensory areas of the cerebral cortex follows; here the author's investigations with regard to paths between the cortex and the optic thalamus and corpus striatum will be followed with interest.

The last three chapters, dealing respectively with intelligence and language, the emotions and sentiments, and consciousness, are perhaps the most important and interesting in the whole book. Bianchi does not attempt to argue in detail the whole subject of aphasia, but contents himself with contrasting the aphasic patient with the patient suffering from disturbances of the functions of the frontal lobes. His opinions on the emotions and sentiments will be read with great interest, for they are not perhaps quite in harmony with the majority of current opinion. The book contains an immense mass of information; it is an admirable summary of the work of many years as well as an excellent presentation of the author's own views. A short explanatory foreword is provided by Professor Lloyd Morgan. In conclusion we must offer our warmest congratulations to the translator, Dr. J. H. Macdonald.

LETHARGIC ENCEPHALITIS.

Few medical subjects in recent times have excited such widespread interest or produced such a flood of literature as lethargic or epidemic encephalitis; and it is fitting and opportune that our knowledge of it should be crystallized in the form of an extensive monograph by an acknowledged authority like Professor ACHARD of the Academy of Medicine of Paris.³ The bibliography supplied at the end of this volume, extending as it does to fifty-five pages, is sufficient evidence of the immense number of contributions, both clinical and pathological, which this disease has provoked during the last four and a half years. We are presented in this volume with an admirable picture of this protean disease, especially rich in the descriptions of its many clinical shapes and symptoms. What we miss most is any considered report on its sequelae, though it must be admitted that this is naturally the most difficult aspect of the subject and one which later years may more easily produce. The careful following up of cases is at the present time the most fruitful field for clinical investigations.

After a short historical introduction there follows a Ring and interesting chapter on the symptomatology; in this the various disturbances of function which may occur are all separately described in considerable detail. We may perhaps be allowed to object to the statement that "the myoclonic forms are characterized by choreic movements," but apart from a few minor criticisms this chapter forms a most valuable feature of the book. It includes a full description of the various modifications which are found in the cerebrospinal fluid and their diagnostic significance. In the next

³ *L'Encephalite Lethargique*. Par le Professeur Achard. Paris: J. B. Baillière et Fils. 1921. (Demy 8vo, pp. 324; 15 figures. Fr. 16.)

chapter the general clinical aspects and course of the disease are well illustrated by careful descriptions of actual cases. The fourth chapter is devoted to the morbid anatomy and histology, its value being enhanced by a section correlating the situation of the pathological changes with the clinical disturbances of function which are produced. Here perhaps more ground for criticisms will be found; thus, can we accept as proved the statement that "myoclonus appears to be explained by changes in the optic thalamus and cerebral peduncles," even when it is qualified by the admission that certain forms of myoclonus must be attributed to a spinal lesion?

The epidemiology and the numerous experimental researches on the nature and propagation of the virus receive somewhat scant consideration in view of the importance of this part of the subject. There is a long and interesting chapter devoted to an elaborate comparison of the symptoms with those of other diseases with which it may be confused, such as influenza, poliomyelitis, sleeping sickness, and many others, but since a separate chapter on diagnosis follows, some repetition is inevitably caused. The section on prognosis is disappointing, for it is especially in regard to the sequelae that more information is most urgently needed. In a short final chapter the various forms of treatment, including that by fixation abscess, are briefly discussed.

The value of this monograph lies chiefly in the careful and indeed admirable clinical pictures of the disease which it provides. It would have gained in interest by the provision of more and better illustrations.

THE VIENNA MEDICAL SCHOOL.

PROFESSOR MAX NEUBURGER in a pleasant monograph⁴ has given what one may term an anecdotal history of the Vienna Medical School. There is a short introduction by the Professor, in which he very briefly outlines the history of the school. He alludes especially to the two periods in which Austrian medical science attained its chief distinction—the second half of the eighteenth century and the decades which more immediately followed 1850. With characteristic frankness he describes the intervening period as one of complete stagnation.

The main text of the book is composed of extracts derived from monographs previously published; for example, excellent pen pictures derived from Osiander's reminiscences are given of Johann Boer, Raphael Steidele, and Johann Peter Frank. Students of the history of Continental medicine will find much of interest and of humour in the accounts given. Boer, one of the most famous obstetricians of his time (1800), is painted as a cynic. He ate his food lying on his side because he claimed that so doing helped his digestion, and he showed an even greater appreciation of his own comfort when he gave up teaching because his students were so ungrateful. It is interesting to notice that nearly fifty years before Semmelweis's experiments Boer recommended the use of lime water and naphtha water as a vaginal douche and as a toilet for the examiner's hand.

One of the most interesting chapters deals with Austrian medicine and surgery in 1826, as recorded in Stromeyer's collection of stories of German doctors. There is a full account of the evolution of the teaching of pathological anatomy—a clinic which was founded under Skoda's supervision, and developed to the excellence it afterwards attained by the genius of Skoda's assistant, Rokitansky. The reader will naturally look for details of Semmelweis's life and work, but he will be disappointed; it would seem that even to-day the achievements of that great man have not received the credit which is their due.

The volume is interesting; it is written in an attractive style, and there are excellent portraits of the more famous leaders of Austrian medical science.

GADFLIES.

DR. WERNER MARCHAND⁵ has performed a service to science by collecting all available information about the Tabanidae (gadflies, clegs, etc.) and publishing a very full summary of it, illustrated by reproductions of the figures from the works of all previous authors.

⁴ *Die Wiener Medizinische Schule im Vormärz.* By Dr. M. Neuburger. Vienna and Berlin: Rikolay. (Demy 8vo, pp. 312; illustrated.)

⁵ *The Early Stages of Tabanidae (Horse-Flies).* By Werner Marchand, Ph.D. New York: Published by the Rockefeller Institute for Medical Research. (Double roy. 16mo, pp. 205; 16 plates.)

The Tabanidae are rather of veterinary than medical importance, though many species occasionally bite man, and two species of *Chrysops* are known to be carriers of the filarial worm *Loa loa* in West Africa. A number of diseases of animals, due to protozoa or worms, are carried by these insects, but do not now concern us. Our knowledge of the early stages and habits of the gadflies is relatively slight. It is also fragmentary and scattered over a large number of periodicals; it is therefore entirely inaccessible to the worker in the tropics who is seldom or never able to consult long series of the less important journals. Nevertheless, it may be noticed with surprise that the early stages of the Tabanidae of Central Africa and the Sudan and of the Philippines are better known, owing to the work of Neave and King and Mitzmain, than those of any part of Europe.

The Tabanidae are all of them large flies, and about two thousand species of the family are known; their distribution is very nearly worldwide. The females in the majority of the genera suck the blood of vertebrata, and are wide-ranging insects of powerful flight. It has even been recorded that certain species fly out to sea to suck the blood of turtles asleep on the surface of the Indian Ocean. The males haunt flowers, and are relatively rare in collections. The egg is laid on leaves of plants overhanging water. The young larva, when it emerges, drops to the surface of the water and swims ashore, to bury itself in mud. Most species spend their entire larval life in wet mud or wet sand at the margin of a pond or stream. Others are found in much drier situations, under turf. The larvae are carnivorous, and in captivity will eat earthworms and the maggots of smaller flies; if food is lacking they become cannibal. They are, for that reason, difficult to breed.

So far as we have been able to judge Dr. Marchand's work has been well done. It appears to be well arranged and to include all, or nearly all, available information. It has a fault common to all collations and summaries—that it does not contain enough of the opinions and personality of its writer.

NOTES ON BOOKS.

THE forty-first volume of the *Transactions of the Edinburgh Obstetrical Society*⁶ comprises the proceedings of the society during the session 1920-21. The contents of the volume include Dr. William Fordyce's presidential address, in which he gives a review of the advances in gynaecology since the beginning of the nineteenth century, and an article by the late Dr. F. W. N. Haultain on his further experiences of "twilight sleep." Dr. Horace R. A. Philp writes of "Obstetric experiences amongst a primitive tribe"; Dr. David Shannon on "Pelvimetry as an index of treatment in contracted pelvis"; Dr. W. Fordyce and Dr. R. W. Johnstone on "Concealed accidental haemorrhage associated with eclampsia"; Dr. F. J. Browne on "Stillbirth"; and Dr. Samuel J. Cameron on the "Surgical treatment of uterine prolapse." Dr. James Young describes an organism obtained from carcinomatous growths. The volume is well printed and illustrated.

The sixth edition of Mr. C. J. S. THOMPSON'S *Compendium of the Pharmacopœias and Formulæ*⁷ brings up to date a little book which, within the limits set for it, is very useful indeed. It gives synopses of the pharmacopœias of Britain (including the Indian and colonial addendum), the United States, Japan, France, Italy, Russia, and nearly all the other European countries, together with unofficial and useful formulæ and practical aids to prescribing and dispensing. Notes are included on such subjects as medicated baths, the period of quarantine in infectious diseases, colour tests for alkaloids, bacteriological memoranda, and foreign terms and phrases used in prescriptions. An appendix, in addition to such subjects as modern antiseptic dressings for wounds and National Insurance stock mixtures, includes an epitome of the Dangerous Drugs Act, 1920, and a summary of its regulations applying to medical practitioners.

Mr. REGINALD BENNETT'S volume of *Medical and Pharmaceutical Latin*⁸ is now in its third edition. It is intended to facilitate the acquirement of medical Latin by students

⁶ *The Transactions of the Edinburgh Obstetrical Society.* Vol. xli. Edinburgh: Oliver and Boyd. 1922. (Demy 8vo, pp. xxxvii + 148; illustrated.)

⁷ *A Compendium of the Pharmacopœias and Formulæ.* By C. J. S. Thompson, M.B.E. Sixth edition. London: J. Ba'e, Sons, and Danielsson. Ltd. 1922. (3½ x 6, pp. 398 + 24. 10s. net.)

⁸ *Medical and Pharmaceutical Latin for Students of Medicine and Pharmacy.* By R. R. Bennett, B.Sc. Lond., F.I.C. With an introduction by H. G. Greenish, F.I.C., F.L.S. Third edition. London: J. and A. Churchill. 1922. (Cr. 8vo, pp. xlv + 374. 7s. 6d. net.)