

## Reviews

### MIGRAINE

If importance may be claimed for a subject in proportion to the number of books it has provoked migraine certainly holds a high place in the record. The latest contribution—namely *Les Migraines*<sup>1</sup>—by Professor VALLERY-RADOT and J. HAMBURGER, includes a bibliography which contains more than seven hundred references, ranging from the beginning of medical history to the present day. This list is itself a feature of interest, but what will appeal to the ordinary reader is the text, for which the authors themselves are responsible; and the more so as this text is based not on books or theoretical studies, but on a wide personal experience in association with a considered judgement of the physiological and pathological issues which the subject involves. When we add, as we must do, that the discussion throughout is distinguished by a capacity to state an argument in clear and concise terms, and to present a conclusion which does not go in advance of the facts, our readers will gather that the book is a welcome and valuable contribution to the much-discussed question of migraine. What on this subject is certain, what is probable, and what is obscure—all alike receive here full and competent consideration.

In detail may be noted, first, that the authors insist on a definition which marks off migraine as distinct both from other forms of headache and also from organic changes which may, and sometimes do, produce hemicrania as one of their clinical consequences. Some failures in this respect by various writers have contributed to cause confusion in dealing with migraine as a classical clinical picture. Here, on the contrary, the definition is clear-cut and decisive, and is applied consistently through all the chapters.

On the immediate phenomena the authors allow, what indeed is generally conceded, that when visual disturbances are features of the migrainous attack these must be referred to intracranial arterial spasm; but they cannot agree that the hemicrania, vomiting, and other symptoms can be explained in this fashion, and after a critical examination of many hypotheses they conclude that on this issue no confident explanation can at present be advanced. Another feature of the book is a careful analysis of the various agencies which are believed, more or less generally, to establish a liability to migraine; and an estimate of the constitutional states, as distinct from the local conditions, which immediately precede or accompany the attack. The chapters in this section include a survey of observations reported on changes in the blood, urine, cerebro-spinal fluid, blood pressure, and endocrine secretions; a review of the influence of heredity, diet, anaphylaxis, and biliary and gastro-intestinal disturbances; and an inquiry directed to the possible relation of migraine to other diseases, as epilepsy, asthma, urticaria, rheumatism, and gout. If some conventional doctrines are brought under the shadow of doubt, no adverse conclusion is presented without due reason and argument.

From these brief statements may be gathered an appreciation of the completeness and comprehensiveness of the discussion. Moreover, the various academic questions presented are not left in the air. On the contrary, they are made the basis for therapeutic measures, both preventive and curative. The claim is advanced that by a careful study of the patient—history, symptoms, clinical examination—many cases can be placed in a definite aetiological group, with a corresponding indication for

appropriate therapeutic measures. Yet it is allowed that however accurate and thorough the survey, there remain instances in which the causation is uncertain or obscure. For both the one and the other provision has to be made, and this is attempted in chapters on treatment which leave nothing to be desired. Hence, whether judged by a standard of interest or of service *Les Migraines* merits a very grateful reception and recognition.

### GROWTH AND MENTAL FUNCTION

Two subjects, or aspects of subjects, which have been relatively neglected in the education of the medical student are growth and psychology. Normal mentality and behaviour, and the ways in which they are modified in illness, have not received the attention they deserve in comparison with structural or functional bodily conditions or disturbance; and in the study of anatomy and physiology teaching is directed predominantly to the adult human being. A book which will materially help towards the correction of both these defects is *Developmental Psychology*,<sup>2</sup> by Dr. FLORENCE L. GOODENOUGH, professor at the Institute of Child Welfare, University of Minnesota. As a textbook of psychology which may be used to advantage either by the medical student and practitioner or by the interested lay person, it is constructed upon a new plan. For the student, whether of medicine, mental science, or pedagogy, it is an admirable introduction to the sequential study and understanding of human behaviour. "Psychology," writes the author, "as it is taken up in this book, is especially concerned with finding out the reasons for human action." And again, it is "largely concerned with the study of the processes by which early potentialities interact with later experience to form new patterns of behaviour, new ways of doing things."

In pursuance of the method thus indicated, Dr. Goodenough first deals with the hereditary background and its physical basis, then with pre-natal conditions and the behaviour of the newborn child, then with the growth and functions of sense organs, then with the period before speech and the acquisition of that accomplishment. So the emotional behaviour and social reactions of infancy and early childhood are considered, and this is followed by excellent chapters on general intelligence and its measurement, on the methods of learning both in younger and in older children, on special abilities and defects, and on personality and character. Later, the periods of adolescence, maturity, and old age are dealt with in similar fashion. In their appropriate places in this sequence both mental defect and mental disease receive a brief and general exposition, and a large number of particular subjects, such as colour vision, conditioned reflexes, and vocational guidance, are adequately considered.

The book is singularly complete in the ground which it covers, sustained in its interest, consistent in its method and point of view. It is good throughout, though, naturally, all of it is not of equal excellence, and the latter portion is perhaps unduly dominated by the American reliance on the statistical results of miscellaneous group investigations. This developmental approach to the study of psychology is obviously of great value: it is educationally attractive and illuminating to deal with the stages of human behaviour successively and to relate them to one another, and to gather in this way certain generalizations and principles which must be of great help, both to medical practitioner and to teacher in their practical application to further professional studies and to every-

<sup>1</sup> *Les Migraines. Étude Pathogénique Clinique et Thérapeutique.* By Pasteur Vallery-Radot and Jean Hamburger. Paris: Masson et Cie. 1935. (Pp. 232; 4 figures. 45 fr.)

<sup>2</sup> *Developmental Psychology. An Introduction to the Study of Human Behaviour.* By Florence L. Goodenough. London and New York: D. Appleton-Century Company Inc. 1934. (Pp. 619; 81 figures. 12s. 6d. net.)

day work. The volume may well become an established textbook when medical studies are reformed in the respects indicated at the beginning of this review, and meanwhile it may be read with profit by the present generation of medical students, even though they may be conscious that no examination test will necessarily follow.

#### POISONING BY EXHAUST GASES

"Mechanical Transport and Public Health,"<sup>3</sup> by Professor M. SCHMIDTMANN, is a monograph dealing with the nature of poisoning by exhaust gases. The author exposed rabbits to the exhaust gases of a petrol motor for various periods, and also studied the effects produced by benzene vapour. He concluded that the concentrations of exhaust gases occurring in busy streets were below the concentration needed to produce demonstrable toxic effects, but he also found that higher concentrations of these gases, in addition to the effects produced by carbon monoxide, also produced in rabbits certain characteristic actions. The two chief effects observed were, first, injury to the haematopoietic organs and consequent leucopenia, and, secondly, changes in the bronchi, the chief of which were contraction of the bronchial muscles and folding of the epithelium. The author found no signs of malignant growth—a point of interest, since there is a widespread belief that there has been an increase in the frequency of bronchial carcinoma which has coincided with the increase in motor transport.

#### DENTAL ASPECTS OF BACTERIAL INFECTION

We are not surprised that a second edition of Mr. J. L. T. APPLETON'S work on *Bacterial Infection with Special Reference to Dental Practice*<sup>4</sup> has been called for. As professor of microbiology and bacteriology in the Thomas W. Evans Museum and Dental Institute School of Dentistry in the University of Pennsylvania, he enjoys almost unrivalled opportunities for correlating the clinical, laboratory, and book sides of his subjects, and he has made full use of his good fortune. The book has been almost completely revised. "Every word has been weighed. . . . Unfortunately, one might say, much has been added"—we think the chapter (a new one) on oral manifestations of extra-oral infections sufficiently answers the author's doubts. The scope ranges from the general to the particular—from the morphology and classification of bacteria, the action of antiseptics, conditions of attack and defence through general hygiene, oral hygiene, to special infections of the oral cavity. The note on "standard tests for antibacterial effect of chemicals" (pp. 58, 59, and 60) is a good example of the laboratory professor at his best: the author endorses the opinion of Bancroft and Richter as to the importance of using animals in determining the efficiency of "antiseptics" and "disinfectants." The cautious clinician appears in the discussion on the removal of tonsils and adenoids (pp. 147 and 148): the author cites authority on both sides, but gives no casting vote.

The chapter on the "clinical status of the pulpless tooth" shows well the combination of the clinician and the laboratory professor. The x rays are useful only in locating pulpless teeth; the author agrees with Rosenow that "the roentgen-ray-negative tooth may harbour streptococci that have a higher degree of specific invasive power than those isolated from pulpless teeth in which

marked rarefaction is apparent," and goes so far as to cast doubts on the generally accepted idea that regeneration of bone (for example, after apicectomy) indicates sterility of the peri-apical tissues. He concludes the discussion thus: "The factors determining the establishment in some cases of a secondary lesion by bacteria (or their products) escaping from the peri-apical tissues are unknown. Likewise we have no established basis by which one can decide whether a particular pulpless tooth is actually or potentially a source of danger."

The concluding chapter, on syphilis, is one of the most useful items of the book. Throughout its pages the author quotes very extensively the work and opinion of others, and in each case gives exact reference; indeed, we doubt whether any single paper or book bearing on his subject has escaped his scrutiny.

#### "DOUBLE DISSECTION"

D. J. MORTON'S *Human Anatomy: Double Dissection Method*<sup>5</sup> represents a departure from the older type of dissecting manual. It is designed to meet the restrictions which are made on the time available for the study of anatomy owing to increased time required for the later stages of the medical curriculum. This change amounts in some of the American colleges to a reduction of the former two years' course of anatomy to one year, which naturally tends to lower the high standard of anatomical proficiency which has formerly been attained. The author attempts to counteract this tendency by remodelling the method of presenting the subject-matter and by a modified method of dissection. Two dissections of the entire body are made, the first being restricted to the larger structures and visceral organs, and the second applying chiefly to the vascular and nervous systems, with a review of the larger structures. The students work in pairs, and co-ordination is maintained between lectures and laboratory work.

The book consists of two volumes, the first of which serves as a guide to the dissection of the muscles and a topographical inspection of the viscera. The second is a schematic guide to more detailed dissections, including the vessels and nerves and special regions such as the orbit and the nasal cavities. Each volume provides spaces and blank pages for drawings and systematized notes, and also outline figures, which it is intended should be completed by the student with the names of the parts indicated in the diagram filled in. The dissections are well planned, and their description should prove a useful guide to the practical work. In some instances, however, the directions are not sufficiently explicit to be followed by a student without previous knowledge, and he would require supplementary information from a demonstrator, dissecting manual, or atlas. The illustrations as a whole are clear, and admirably serve the purpose for which they are intended. The few defects we have noted are mostly unimportant. They include: incorrect spelling of a considerable number of words; too schematic, and thus inaccurate, drawing of one or two of the figures—for example, those on pages 466 and 492, vol. ii; and the description of the intercostal vessels and nerves as being situated between the internal and external intercostal muscles, whereas it has recently been shown that they lie deep to the internal intercostal muscles, between these and the musculo-fascial plane consisting of the intracostal and subcostal musculature.

The advantages claimed for the "double dissection method" are, in our opinion, doubtful. The method

<sup>3</sup> *Kraftverkehr und Volksgesundheit*. By M. Schmidtman. Jena: G. Fischer, 1934. (Pp. 44; illustrated. RM. 4.50.)

<sup>4</sup> *Bacterial Infection. With Special Reference to Dental Practice*. By J. L. T. Appleton, Jun., B.S., D.D.S. Second edition, thoroughly revised. London: H. Kimpton, 1934. (Pp. 654; 122 figures, 4 coloured plates. 32s. net.)

<sup>5</sup> *Human Anatomy: Double Dissection Method*. Two volumes. First and Second Dissection. By Dudley J. Morton. New York: Columbia University Press; London: H. Milford, Oxford University Press, 1934. (Pp. 550; illustrated. 30s. net.)

entails the use of double the amount of material, and is thus in many ways much more costly than the methods now in vogue. It also, if carried out satisfactorily, involves a greater expenditure of the time of both teacher and student, and necessitates a considerable amount of repetition. We believe that one complete dissection of the body carefully carried out is better than any number hastily undertaken without due attention to detail. Nevertheless, the book may be recommended as a valuable supplementary guide to dissection and note-taking, whether the "double dissection method" is, or is not, adopted in the particular college at which the student is studying.

### Notes on Books

In this comprehensive work, dealing with all kinds of *Methods of Treatment*,<sup>6</sup> Professor LOGAN CLENDENING has had the assistance of eleven contributors in special branches. This arrangement has been so successful that five editions have been required since its first appearance in 1924. The book is divided into two parts—the first being devoted to general therapeutics, such as diet, methods of administration of drugs, hydrotherapy, medical gymnastics, radiotherapy, climatology, and physiotherapy; the remaining part describes the special treatment of various diseases. The first chapter begins with the modest, if broad-minded, statement that "rest and surgery are the most effective therapeutic methods the modern physician has to offer to a patient." Some may think this an understatement. On the other hand, it is rather an exaggeration to say that "Clifford Allbutt devoted two large volumes to the attempted demonstration that angina is due to disease of the aorta," for though the title "Diseases of Arteries including Angina Pectoris" might support this, examination of the text would show that the whole of one volume and part of the other deal with arteriosclerosis. *Methods of Treatment* is written in an attractive manner, with many illustrative cases and quotations; for example, in the practical account of purgatives, of which elsewhere the author graphically remarks that by their use in acute abdominal pain not only is the principle of rest violated but it "is the principal way doctors kill patients."

Written in a popular style for the lay public, and dedicated by Dr. HOWARD HAGGARD, associate professor of applied physiology in the University of Yale, to his three children, *The Doctor in History*<sup>7</sup> contains much that is interesting, bizarre, and dramatic. This is the third book of the kind written by the author, who has a wide and curious knowledge of medicine, and a talent for its graphic presentment. Beginning with an impressive, if short, paragraph of five words—"Disease is older than man"—he describes some diseases of the dinosaurs, mentions that sabre-toothed tigers had toothache, and then takes the reader, by stages, over two hundred centuries up to the present day, when, in the enthusiasm for the social benefits of medical leadership, the doctor at the bedside is said to be out of sight and mind.

The total number of names in the *Dentists Register*<sup>8</sup> for 1935 is 14,439, being 14 more than the figure for the preceding year. Of these, 7,586 (52.54 per cent.) are registered with medical, surgical, or dental qualifications, as compared with 7,373 in 1934. None of the 280 persons newly registered are without qualifications. Death and other causes were concerned in the removal of 509 names, while 236 which had been omitted from previous editions for various reasons now reappear.

<sup>6</sup> *Methods of Treatment*. By Logan Clendening, M.D. Fifth edition. London: Henry Kimpton. 1935. (Pp. 879; 103 figures. 42s. net.)

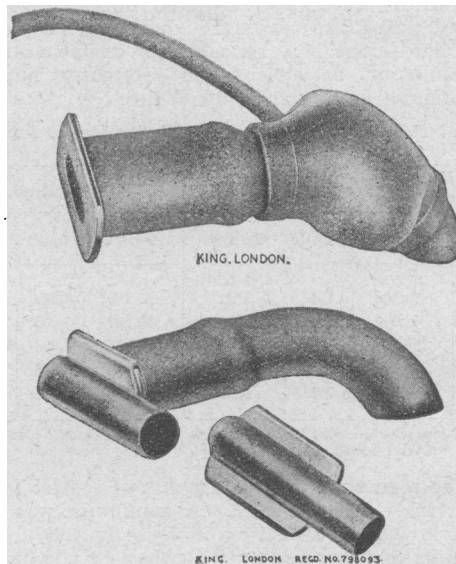
<sup>7</sup> *The Doctor in History*. By Howard W. Haggard. New Haven: Yale University Press; London: Humphrey Milford, Oxford University Press. 1934. (Pp. xiii + 408; 115 figures. 17s. net.)

<sup>8</sup> Published for the Dental Board of the United Kingdom by Constable and Co., Ltd., 10, Orange Street, W.C.2. Price 12s. (post free 12s. 6d.)

## Preparations and Appliances

### AIRWAY FOR INTRANASAL OPERATIONS

Sir FRANCIS SHIPWAY writes: A simple method of preventing blood, pus, or other fluid from entering the trachea during intranasal operations has been devised and proved during prolonged trial to be effective. An airway carries a rubber balloon, with tube for its inflation; it is lubricated before insertion, and when *in situ* the balloon is distended and the



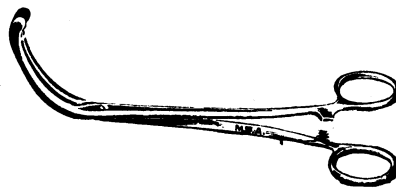
tube clipped. Ribbon-gauze is then packed in the mouth. Nitrous oxide and oxygen, etc., can be administered through it by means of the special fitting (illustrated), which does not interfere with the manipulations of the surgeon.

I am indebted to Mr. W. M. Mollison for his co-operation and suggestions. The airway is made in three sizes, and supplied by Messrs. A. Charles King, Ltd., 34, Devonshire Street, W.1.

### LOBECTOMY CLAMP

Mr. W. H. C. ROMANIS, F.R.C.S., and Mr. T. H. SELLORS, F.R.C.S., send the following description of a lobectomy clamp which they have devised.

This new clamp has been designed for holding and crushing the bronchus and pedicle of the lobe during the operation of lobectomy. The ordinary snare occasionally comes off the pedicle at the critical moment, but this clamp will give a



firm hold, and not slip, as it has great crushing power, while the longitudinal serrations of the blades render it possible to cut the lobe away absolutely flush with the clamp with safety. The upturned end renders the tying of ligatures or stitches round the pedicle easy. The clamp is made in two sizes, for adults or children. It is manufactured by the Medical Supply Association Ltd., 95, Wimpole Street, W.1.

### GRAPE JUICE

"Fruydor" is a preparation of grape juice, marketed by Messrs. Courtin and Warner Ltd. (Worcester Street, Southwark Street, S.E.). The juice is conserved by means of Dr. Matzka's process. It is stated that this avoids the use of either preservatives or pasteurization and does not reduce the vitamin content of the grape juice. Fruydor makes a very pleasant drink.