

## Reviews.

### DIAGNOSIS AND TREATMENT IN HEART AFFECTIONS.

THE contents of Sir JAMES MACKENZIE'S *Principles of Diagnosis and Treatment in Heart Affections*<sup>1</sup> were originally prepared as lectures to post-graduate students, but the outbreak of war preventing their delivery he has published them in a book, dividing the subject matter into chapters instead of lectures, but retaining the colloquial form of expression.

He commences by setting forth his views on the methods and aims of medical research. He considers that the advance of medicine will be halting, and whole fields essential to its progress will remain unexplored until the general practitioner takes his place as an investigator. The chief efforts of the profession, he asserts, have been spent in the recognition of the more chronic diseases after they have killed the individual, or when they have gone beyond the stage of cure, but we should, on the contrary, endeavour to detect disease in the earliest stage. He holds that, could we appreciate them aright, the patient's sensations give the first indication of disease, and a proper appreciation of these sensations will enable us to understand many obscure complaints, such as abnormal heart action. The lack of appreciation of the significance of the patient's sensations is shown in the attitude of the profession towards pain; the fact that such expressions as a "tender liver," "a tender appendix," are used by teachers and in textbooks proves, he considers, that the profession is not cognizant of the simplest elements of the investigation referred to. Patients' sensations must be studied, and all associated phenomena carefully noted; bacterial invasion gives rise to sensations, and Sir James Mackenzie thinks it likely that each organism gives rise to peculiar sensations. To acquire a knowledge of the life-history of chronic diseases it is necessary to be able to follow individual cases from the start to the finish. It is, he says, a remarkable fact that there is not to be found in medical literature the history of one single individual carried on from the attack of rheumatic fever which started the valve disease in mitral stenosis, down to the time of death, and containing a record and due appreciation of the changes which took place.

Since a knowledge of the progress of disease reveals the meaning of abnormal signs and constitutes the basis of intelligent prognosis, investigation of prognosis can only be carried out by those who have the opportunity of watching individuals during the whole course of the disease. The opportunity for investigation in hospitals is too restricted; the general practitioner is the only investigator who has the real opportunity.

The governing motive of all clinical investigation when dealing with any particular symptom should be to answer the question, What bearing has the cause of this symptom on the patient's future? and, when the heart is concerned, whether it indicates, or foreshadows heart failure. Heart failure is defined by the author as the condition in which the heart is unable to maintain an efficient circulation during the efforts necessary for the daily life of the individual.

Various signs and symptoms of cardiac affections are discussed from this point of view, and it is laid down that these signs and symptoms arise from three definite and distinct sources:

1. Structural: that is, changes in the size, shape, or position of the organ, or modification of its material constitution.
2. Functional: that is, changes due to modification or inefficiency of the function of an organ.
3. Protective: that is, the presence of sensations, always disagreeable, produced by the intervention of the nervous system for the protection and resting of the organ.

The structural symptoms are discussed in chapters on increased size of the heart, murmurs and abnormal rhythm. The functional are described under breathlessness, fainting, dropsy, etc., and the protective under angina pectoris.

<sup>1</sup> *Principles of Diagnosis and Treatment in Heart Affections*. By Sir J. Mackenzie, M.D., F.R.S., F.R.C.P., LL.D. Aberd. and Edin., F.R.C.P.I. (Hon.). London: H. Frowde, Hodder, and Stoughton, 1916. (Demy 8vo, pp. 282; 26 figures. 7s. 6d. net.)

The sense of exhaustion, so common in cardiac cases, the author thinks, is not of cardiac origin. He believes that it is produced by a vasomotor mechanism and is brought about by a depletion of the higher nervous centres, the provoking agent being frequently a toxin.

The methods essential to the proper examination of cardiac cases have hitherto, Sir James Mackenzie says, not been utilized. In books on diagnosis nearly all the stress has been laid on physical examination and little attention given to the elucidation of the patients' sensations, nor has sufficient attention been directed to finding out what the manifestations of the heart may be in health. In treating of the different signs and symptoms he points out that in almost every case the symptom under discussion may be compatible with recovery or at any rate with useful, if restricted, life and a stationary condition of the disease. He insists that no serious view of a case, far less a grave prognosis, should be based on the presence of one physical sign, but he is convinced, notwithstanding many statements to the contrary, that, although the truth of this is admitted in theory, in practice it is ignored.

In the small portion of the book devoted to treatment the author lays down the rule that the essential principle is the care of the heart muscle. Rest, diet, exercise, and baths are discussed, but a warning note is sounded as to the extravagant claims made on behalf of certain systems of exercises and baths: "The reputation of Nauheim baths and of the artificial imitations of them depends . . . more on brazen advertisements, financial interests, and the slavish tributes of other spas than intellectual appreciation and application of the principles of treatment." With regard to drugs, the action of digitalis, strophanthus, the nitrites, sedatives, oxygen, and atropine are dealt with; caffeine, strychnine, and oil of camphor it is thought probably act only indirectly through the nervous system.

The book, containing as it does the experience and conclusions of a lifelong worker and pioneer in this branch of medicine, will command general attention. The fact that in places it exhibits some of the uncompromising expressions of opinion and the iconoclastic spirit of the pioneer makes it stimulating reading; and, while some of the author's conclusions may in the future be modified as the result of the continuous investigations he hopes to see undertaken, everyone engaged in the practice of medicine will find his book suggestive and inspiring.

### ANIMAL PARASITES OF MAN.

IN the volume entitled *The Animal Parasites of Man*<sup>2</sup> the subject is considered from the zoological point of view, and the writers are concerned mainly with the embryology, ontogeny, and morphology of a great variety of organisms. The book is partly adapted from the fourth edition of Max Braun's textbook, and this involves a somewhat awkward separation of some clinical notes, which are given in a supplement. Recent discoveries are, moreover, embodied in the addenda, so that it is not always easy to obtain any required information. The book falls into three sections, each the work of one of the adapters. The sections on the protozoa and the worms open with very full introductions to the group, explaining in detail any points which are capable of generalization.

Dr. FANTHAM'S account of the protozoa is perhaps the most successful part of the book, though he would have done well to cater for the medical man a little more fully, and so help to bridge the gap between parasitology and medicine. We should like to have seen tables of the differences between the various spirochaetes or the various protozoal cysts which may occur in faeces. Dr. Fantham is singularly fair in dealing with debatable points; we may instance his treatment of the chlamydozoa, or of Mr. McDonagh's life-history of the organism of syphilis. We remember, of course, that the existence of a granule stage in the life-cycle of the spirochaete is very widely accepted, and has been demonstrated in some half-dozen different species. It appears that about seventy-five

<sup>2</sup> *The Animal Parasites of Man*. By H. B. Fantham, M.A. Cantab., D.Sc. Lond., J. W. W. Stephens, M.D. Cantab., D.P.H., and F. V. Theobald, M.A. Cantab., F.E.S., Hon. F.R.H.S.; partly adapted from Dr. Max Braun's *Die Tierischen Parasiten des Menschen* (fourth edition, 1908), and an Appendix by Dr. Otto Seifert. London: J. Bale, Sons, and Danielsson, Ltd. 1916. (Roy. 8vo, pp. 932; 423 figures, 45s. net.)

protozoa have been known to occur in man, many of them very rarely, and as wanderers from some other host.

The account of the worms, to use an unscientific but convenient term, is by Professor STEPHENS. This part of the book is exceptionally well illustrated and full of detail. Helminthology is beyond the ken of the ordinary practitioner, who only knows three or four worms, and treats them rather empirically; nevertheless, the whole subject is fascinating in its complexity and full of biological problems, such as the meaning of "individuals," and the alternation of generations. Then, again, the life-histories of these organisms are frequently rendered intricate because the parasite must pass from one species of host to another in order to become mature. The work of the Grouse Commission or the labours of the various investigators of "hookworm disease," or Leiper's researches on *Schistosomum (Bilharzia)*, make one realize what a vast amount of labour may go to the elucidation of even one life-cycle. We should also realize that a full knowledge of the bionomics of a parasite forms the only possible basis for prophylaxis, personal or racial. This book describes many worms known to have occurred in man frequently or rarely, but of which the life-history is unknown.

The section on Arthropods (mites, ticks, and insects) is by no means as good as the rest of the book. The adapter is known as an authority on the classification of the mosquitos, and probably he is at his best when dealing with questions of pure systematics. He is, perhaps, less happy in his treatment of biological points, and he deals inadequately with methods of control or prophylaxis. The three species of human lice are dealt with in a very disjointed manner, and no mention is made of the fact that *Pediculus* is the vector of typhus or Mediterranean relapsing fever, though it is stated that Sulla, Herod, Cardinal Dupet, Philip II, and others died of "louse disease."

The book is probably intended to be more zoological than medical; nevertheless, we wish it contained more matter of everyday clinical importance. To most of us, for instance, the egg of a worm is of more importance than its hooklets or its central nervous system.

The English into which the book is translated is never graceful and is occasionally obscure. The figures, many of them borrowed, are generally good, though only too frequently the magnification is not given. Typographical errors have not been entirely eliminated. The index is good and the bibliography beyond praise.

#### NOTES ON BOOKS.

A VOLUME on *General Surgery*<sup>3</sup> in the annual Practical Medicine Series contains in some forty sections an account of the progress made in surgery last year, from the American point of view. It contains much interesting reading for surgeons, and is well illustrated. As an example of the value of prophylactic treatment in tetanus, the editor, Dr. J. B. Murphy, whose death we had recently the sorrow to announce, notes that the septic wounds produced by the accidents incidental to the annual celebrations on July 4th resulted in 417 deaths from tetanus in 1903; in 1915, owing to the public appreciation of the value of timely treatment, there was but one such death. He also states that almost 20 per cent. of over 10,000 autopsies in cases of death from cancer showed no demonstrable metastases at all.

An admirably well-thought-out and useful little book on *Medical Reporting in Pitman's Shorthand*<sup>4</sup> has been produced by Mr. H. DICKINSON. It should be of special use to intending reporters of medical lectures and discussions, whose needs he had in mind when preparing it. It is always difficult to take down technical matter, and as it is certainly most desirable that strict accuracy should be attained the would-be reporter of medical subjects will do well to study Mr. Dickinson's book. It should also prove useful to any shorthand writer who thinks of seeking a post as secretary to a medical man. The book does not claim to be a medical shorthand dictionary of outlines, but it contains those phrases with which the aspirant to medical reporting should be familiar.

<sup>3</sup> *General Surgery*. Vol. ii. Edited by J. B. Murphy, A.M., M.D., LL.D., F.R.C.S. Eng. (Hon.), F.A.C.S. The Practical Medicine Series, under the General Editorial Charge of C. L. Mix, A.M., M.D.; Series 1916. Chicago: The Year Book Publishers. 1916. (Cr. 8vo, pp. 620; 49 plates; 222 figures.)

<sup>4</sup> *Medical Reporting in Pitman's Shorthand*. By H. Dickinson. London: Sir I. Pitman and Sons, Ltd.; Toronto: The Commercial Textbook Company. 1916. (Cr. 8vo, pp. 87. 3s. net.)

To those who want to learn how to make surgical bandages and dressings for the war we recommend the diagrams and descriptions of patterns designed and standardized by the surgical branch of the Central Dépôt of Queen Mary's Needlework Guild, compiled by ALICE SCOTT.<sup>5</sup> The full-sized work costs 3s. 6d., the abridged edition 1s.; all profits go to the Central Dépôt. The publication is most timely and serviceable, and we wish it the full measure of success it deserves.

A *Catalogue of the Pathological Museum of the Medical College, Calcutta*,<sup>6</sup> prepared by Dr. MCCONNELL, formerly professor of pathology and curator of the museum, and revised by the present occupant of those posts, Sir LEONARD ROGERS, has been issued in two volumes. This pathological museum is believed to have been the earliest established in a tropical country. It was founded in 1839, and began with some specimens collected within the twenty previous years by the Calcutta Medical and Physical Society. In 1843 the Calcutta Medical Board published an appeal to all medical officers in India, which was so successful that by 1848 the total number of specimens amounted to 2,000. The catalogue is published in a most convenient form, each volume being small and portable, whilst the type is large and clear. Though not so uniform as in catalogues where every specimen is described systematically after Paget's method, the letter-press appears to make the essential characteristics of each preparation quite clear by the use of capitals and Clarendon type. The series showing malformations of the intestine, entozoa, and calculi are very rich, while visceral disease, bone affections, and disorders of the circulatory system are well represented.

The *Textbook of Physics and Chemistry for Nurses*,<sup>7</sup> by Dr. BLISS and Mr. OLIVE, is a brave attempt to concentrate a mass of knowledge into pemmican for nurses. Magnetism and electricity are expounded in four pages, acoustics in one. Naphthalene is set down as one of "the benzenes," and its structural formula is given, with the information that it is also known as "coal-tar camphor," or "tar balls." The ash of sea-weeds is described as "vareel," perhaps an error for "varech"? The book is designed to contain only the amount of material that could "be intelligently digested by the average studious nurse in the time allotted to the subjects." Its appeal is more to the memory than to the intelligence.

<sup>5</sup> *Surgical Bandages, Dressings, and Slippers*. Diagrams by Alice Scott. London: P. Lund, Humphries and Co. 1916. (Cr. 4to, pp. 73; illustrated. 3s. 6d.)

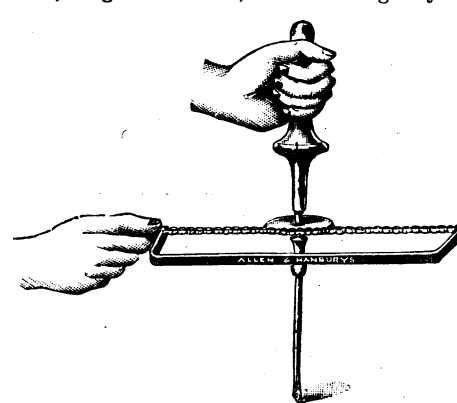
<sup>6</sup> *Catalogue of the Pathological Museum, Medical College, Calcutta*. By J. F. P. McConnell, M.B., M.C., M.R.C.S. Eng. Revised by Sir Leonard Rogers, M.D., F.R.C.P., B.S., F.R.C.S., I.M.S. In two volumes. Calcutta: Bengal Secretariat Book Dépôt. (Demy 8vo, pp. 486 and 464. Vol. I, £1 1s.; Vol. II, 13s. 9d.)

<sup>7</sup> *A Textbook of Physics and Chemistry for Nurses*. By A. R. Bliss, Jr., Ph.G., Ph.Ch., A.M., Ph.D., M.D., and A. H. Olive, A.M., Ph.Ch., Ph.D. Philadelphia and London: J. B. Lippincott Co. 1916. (Demy 8vo, pp. 253; 48 figures. 6s. net.)

#### MEDICAL AND SURGICAL APPLIANCES.

##### A Bone Drill.

MR. R. H. JOCELYN SWAN, M.S. Lond., F.R.C.S. (London, W.), writes: The accompanying drawing represents a bone drill which has been made for me by Messrs. Allen and Hanburys, Ltd., Wigmore Street, from a design by Dr. G. Ramsey Phillips.



The drill is fitted into a chuck connected to a threaded wheel which is rotated by a chain stretched on a bow. The great advantage of the instrument consists in the ease with which even the hardest bone can be drilled with

the least possible exertion, especially in awkward positions in which the drive is not direct.

I have used this drill in a large number of cases of bone-plating, and have found it greatly superior to any other design. It is easily cleaned, and the whole can be boiled for sterilization.