Text-Book of Physiology. By Martin Flack and Leonard Hill. Pp. vi + 800. London: Edward Arnold. 1919. Price 25s. net.

This volume seems to us likely to take an important place among the numerous text-books on physiology. It is arranged in thirteen sections, the first of which deals with general physiology, opening with a biological introduction, followed by chapters on the cell, the chemistry of the body, and on enzymes.

Book II. deals with the blood and contains a useful chapter on haemolysis and immunity. The circulation and metabolism are adequately dealt with. The chapter on the mechanism of respiration is disappointing. It contains little more than some anatomical details, and a practitioner of medicine who wishes to look up the physiological principles which may help him to understand the problems offered by diseases of the pleura and lungs will look in vain. The remaining sections deal adequately with excretion, motion, the nervous system, and reproduction.

We confess to some astonishment that so good a book by such distinguished authors should contain many minor blemishes.

On page 98 we read that "morbid conditions which cause large numbers of basophils to appear in the blood are extremely serious, and for this reason they have been termed the the harbingers of death." We know of only one morbid condition—myeloid leukemia—in which large numbers of basophils appear with any constancy, and in that disease prognosis has no relationship to the number of basophils.

On page 211 we read that from a wounded artery the blood spurts in pulses, from a wounded vein it flows continuously. This will certainly give a junior student a wrong impression. The flow of blood from an artery is not interrupted between the pulse waves. On page 313 there is a gem of fine writing—"he who is inside, and helps to make the 'fugg,' is wholly unaware of the same and unaffected by it." "To respiration children artificially it is best to put mouth to mouth (interposing a handkerchief) and rhythmically blow up the lungs" (page 324) is sorry English and bad advice.

On pages 743, 744 we are told that in using the chest or normal register, the chink is narrow and long, in using the head register the chink is wider. The student is left wondering what a register is and where to find two of them between the scalp and the diaphragm. On page 760 we are told of an explanation "which to many has appeared apparent"!
This by no means exhausts the evidence of a lack of revision, and we refer to the matter because we think the book merited more care than it has received in the details of its presentment. The illustrations are numerous and excellent.

_Fats and Fatty Degeneration._ Dr. Martin H. Fischer and Dr. Marian O. Hooker. Pp. 155. With 65 Illustrations. London: Chapman & Hall. 1917. Price 9s. 6d. net.

This book, to quote the authors’ own words, represents “an attempt to analyse colloid-chemically the third phase in the reaction of living matter to injury,” the three phases being swelling, clouding (i.e. dehydration with consequent precipitation of certain tissue colloids), and “fatty degeneration.” The changes of the first two phases are reversible, and the damaged tissues may therefore recover their function. The changes induced in the third stage are, in the main, irreversible, and may even advance to a fourth stage of “necrosis.”

The chief value of the book, from the point of view of practical biochemistry, is that it replaces by definite laws much of what was empirical in the production and maintenance and destruction of emulsions, and so establishes fundamental principles which will guide the chemist and the physician in their respective spheres, and at least aid the latter in the prevention, if not the cure, of many grievous diseases. Whether one agrees with all that the authors set forth or not, the book is most stimulating, and is well worthy of perusal by students of scientific medicine and pathology.

_Surgical Treatment._ By James Peter Warbasse, M.D., New York. Vol. I. Pp. 947. With 699 Illustrations. Philadelphia and London: W. B. Saunders Company. 1918.

This is the first volume of a practical treatise on the therapy of surgical diseases for the use of practitioners and students of surgery. When the work is completed by the issue of the other two volumes promised, it will form a most comprehensive exposition of the subject. This, indeed, was the author’s intention; his object, he tells us, has been “to place in the hands of the surgeon the means for rendering help in every surgical condition under all circumstances.” So far as this volume enables us to judge, he has succeeded—if indeed any book can make the surgeon quite so universally useful.

The volume before us deals with the subjects that are usually included under the term “general surgery”—technique, anesthesia, wounds, inflammations, diseases of blood vessels, bones, joints, etc., and fractures.
We find ourselves in general agreement with the author in his estimate of different methods of treatment; and it is evident that he has made his choice from actual practical experience and observation. He writes in a clear, precise, and even dogmatic style, which accords with the purpose of the work. One ambiguous statement, however, has caught our eye, in the advice given regarding the torsion of blood vessels to arrest bleeding—"a rule is to twist the vessels, the names of which are not known to the surgeon" (p. 341).

The illustrations are both numerous and good, and there is an excellent index. We can confidently recommend this work of reference.

The Elementary Nervous System. By G. H. Parker. Pp. viii. + 229. With 53 Illustrations. Philadelphia and London: J. B. Lippincott Company. 1919. Price 2.50 dollars net.

This is an illuminating account of the elementary nervous system as found in the simpler animals, especially in Coelenterates, many of the recent advances in our knowledge of which are due to the ingenious experiments of the author. Prof. Parker shows that muscle is the primitive element in the evolution of the neuro-muscular mechanism, for physiological findings agree with histological observations in supporting the conclusion that sponges have ocular and pore sphincters, but no nervous elements. The next step in evolution is represented by the receptor-effector system of the Coelenterates. Here, in addition to the effector, is a receptive element—a modified epithelial cell,—the basal processes of which are applied to the subjacent muscle-cells, and the quicker response is evidence of the increased efficiency of this new system, although the nervous activities of the animal are quite uncentralised. The basal branches of the receptor cells not only are applied to the muscle-cells, but form among themselves a network of communication whereby the impulse from one receptor may be transmitted to many muscle-cells. In this nerve-net cells appear, and thus arise the primitive units of the nerve-net, termed by Prof. Parker "protoneurones," which in the course of evolution have become, in the Annelids and higher groups, differentiated to the condition of definite neurones related through synapses. Prof. Parker deals in a specially interesting manner with the subject of nerve-nets in the vertebrate heart and small intestine. Appended to the work is a useful list of the more important literature of the subject, including the titles of a number of papers published in 1917 and 1918.
Animal Parasites and Human Disease. By ASA C. CHANDLER. Pp. xiii.+570. With 254 Illustrations. New York: John Wiley & Sons; London: Chapman & Hall. 1918. Price 21s. net.

The author states that his book is not intended to serve as a systematic work of reference for the parasitologist. His aim has been to present the important facts regarding animal parasites in relation to human disease in such a manner as to make the book helpful to public health and immigration officers and other medical men, to teachers of hygiene and students, and to others who are interested in the progress of science and civilisation. It may be said at once that the author has succeeded in giving a clear and interesting exposition in which due attention has been devoted to the recent advances in our knowledge. For instance, his chapter on Spirochaetes includes accounts of relapsing fever, syphilis, yaws, infective jaundice (Weil's disease), rat-bite fever, and other spirochaete diseases. The author states the chief characteristics of the more important protozoa, worms, insects, ticks, and mites, associated with disease in man; gives a clear outline of their life-histories; and considers their effects on their respective hosts and the principal methods of prevention, destruction, and treatment.

The illustrations are excellently chosen, many of them from recent papers, and several useful comparative figures are given, e.g. of a ripe segment of various species of human tape-worms. The figure of measly pork is, however, poor; the figure of Entamoeba histolytica shows a non-existent contractile vacuole, and the bristles are not correctly shown in the figure of the head of Pulex irritans.

Some few statements in the text are perhaps a little too positive—e.g. that the germ of yellow fever is "almost beyond question" a protozoan,—and there are a few slips such as Auchenomyia for Auchmeromyia; but the defects noted are all small matters.

The book can be cordially recommended as a clear and straightforward presentation of the important facts of the subject, burdened as little as possible with minutiæ of structure and details of classification.

A Treatise on Regional Surgery. By Various Authors. Edited by JOHN FAIRBAIRN BINNIE, Kansas City, Missouri. Three Volumes. Pp. xx.+2138. With 1985 Illustrations. London: H. K. Lewis & Co., Ltd. 1917. Price 32s. net. each volume.

This work, which we have just received, is intended to present the senior student and the practitioner with an exposition of the application of general surgical principles to the various lesions of the different regions of the body. The plan has been to allocate each region to a writer of authority on the subject, and give him a free
hand, with certain limitations of space, in dealing with it, preferably by expressing his personal views and experience. Here the Editor's functions seem to have ceased, for he tells us in the preface that he "has not presumed to interfere in the slightest degree with the material contained in the various chapters." Thus he transfers to the contributors, of whom he himself is one, the whole responsibility for the standard of the work.

We cannot wholly approve this method of editing an important treatise. The function of an editor is to edit, and there are places where the judicious use of the blue pencil would have improved the work before us. A uniform method of giving references to original sources also might have been adopted; some are given in the text, others as footnotes, and still others at the end of the section; and some system might have been followed in providing legends to the illustrations. Nor are we satisfied when we are told that "there was so much difficulty in securing a suitable authority to write a chapter on the diseases of the brain that, rather than insult the reader with a piece of 'hack work,' the Editor chose to omit it entirely!"

It must be admitted that the selection of his collaborators has been carefully and successfully carried out. Most are American, but a few representatives of British and Australian surgery make contributions. The personal note is clear and distinct throughout most of the sections, and this certainly adds to the interest and value of the work.

It is impossible to refer to the different essays in detail, and to make selections would be invidious; suffice it to say that, within the limits set, we have here a representative and authoritative presentment of the present-day aspects of practical surgery.

The illustrations are unequal in merit and execution, but they are well designed to elucidate the text.