REVIEWS.

Manual of Anatomy, Systematic and Practical, including Embryology. Originally written by the late A. M. BUCHANAN, M.A., M.D., C.M., F.R.F.P.S.Glasg., Professor of Anatomy in The Anderson College of Medicine, Glasgow. Fourth Edition. Edited by a Committee of Anatomists in London. With 667 Illustrations, mostly Original and in Colours. London: Baillière, Tindall & Cox. 1919. (30s. net.)

BUCHANAN'S *Anatomy* is now so widely known to students that a detailed notice of the fourth edition is not called for.

The third edition appeared in October, 1915, and for it every section was carefully and completely revised, and many of them entirely rewritten.

The present edition has been produced by a Committee of Anatomists in London, and from their preface we learn that the "old" nomenclature has been retained, and that alterations in the text have been confined to a minimum. This limitation of alterations bears some relation to the Committee's expressed hope that many other anatomists will collaborate in the production of future editions.

There is little doubt that Buchanan's *Anatomy* has come to stay, and we think it extremely probable that many more editions will yet be produced, and bring the author's name and work before an ever-widening circle of readers.

Medical students have reason to be grateful to the publishers for this new edition.

A Manual of Elementary Zoology. By L. A. BORRADAILE, M.A., Lecturer in Zoology in the University of Cambridge; Fellow, Dean, and Lecturer of Selwyn College. Second Edition. London: Henry Frowde and Hodder & Stoughton. 1918. (6s. net.)

IN this *Manual* are described those animals which are most often studied in courses of elementary zoology. The author, in

describing them, aims at introducing the student to the principal problems of the science. He lays stress on the principle of regarding the organism as a whole, and, instead of investing cells and zooids with a "mystical individuality," he has "taken indivision, not indivisibility, to be the essence of individuality."

In the present edition there are three new chapters—two upon certain parasites, and one upon cold-blooded vertebrates.

In an excellent introductory chapter the characteristics of the animal organism are set forth, and the way is paved to the consideration of its structure and functions. Following on this comes the examination of, first, one of the higher animals, viz., the frog; and, second, an exceedingly simple example, the amoeba. To this succeeds a series of chapters in which is traced the gradual increase in organisation, and the varieties that it presents, as we ascend the scale of the animal kingdom.

The concluding chapters of the volume are devoted to the consideration of general subjects—embryology, classification and evolution, and, lastly, the animal in the world. They are followed by an appendix containing general instructions for practical work, and instructions for observing and dissecting particular animals.

So much for the general scheme of the volume. On turning to individual chapters we find those devoted to the examination of the frog amply fulfil the author's intention of going into "considerable" detail. And not only so; the author's method of marshalling his facts is one which will appeal to the student, and will fully repay careful and thoughtful reading. The amoeba is taken up immediately thereafter, and attention is drawn to the points of contrast between it and the frog.

Then comes the gradual ascent in the scale, and we reach the new chapter on protozoal parasites. This chapter includes entamoeba, trypanosoma, plasmodium and balantidium, and, along with that dealing with nematode parasitism, supplies the element of practical application, so dearly beloved by the medical student. The former chapter is particularly important in view of the exposure, during the recent war, of such large numbers of men to these parasites, and consequently to the diseases dependent upon this invasion of the human organism.

Throughout the volume the author tries to cultivate in his reader a wider outlook than one might expect to find in a work

having the title "elementary." Facing p. 1 are directions to the student as to how the book should be read, according to the end in view, viz., preparation for an examination, or preliminary to a wider course on the subject. These directions will be found a useful guide, especially to the beginner, who might otherwise feel rather at sea if he attempted to read straight through the volume.

The matter is carefully written throughout, and is freely illustrated by excellent drawings. We would suggest that an index of these latter would be a useful adjunct to future editions. It is evident that the author has spared no pains in the production of the *Manual*, and his efforts have been well supported by printer and publisher. The result is a work which we have every confidence in recommending to students—senior as well as junior—and also to science teachers.

The Nervous Heart. By Captain R. M. WILSON and Major JOHN H. CARROLL, R.A.M.C. Oxford Medical Publications. London: Henry Frowde and Hodder & Stoughton. 1919. (6s. net.)

"THIS book is an attempt to view the problems of heart disease, and especially functional heart disease, from a new angle, that of the nervous system." The authors have achieved their object.

The efficiency of any effort, mental or physical, depends for its success upon a satisfactory supply of blood to the brain and the muscles. The venous "lakes," in the abdomen, the lungs and the skin, are more than sufficient to contain the whole of the blood, and the mechanism for supplying blood in sufficient quantity to the brain and the muscles, as occasion demands, is partly cardiac and partly extra-cardiac, and under the control of the nervous system. This control is exercised through the vagus and the sympathetic nerves, the action of the two being antagonistic, and one or other dominant from time to time according to the demands of the organism. If one or other is inefficient, or the balance between the two irregular, the results will not be satisfactory, and symptoms of distress will arise.