

systematic consideration of twelve families, 58 genera and 258 species and by an admirable description of the external features, biology, anatomy and development. In a short chapter of ten pages the damage caused by these worms in fish and domestic animals and in man is considered. Tables are given showing the hosts, both invertebrate and vertebrate, of Acanthocephala, and the geographical distribution of the genera and species. A key for distinguishing the genera, a detailed bibliography and three indexes (author, systematic and structural) are added. The illustrations, 382 in the text and one plate, are well chosen and excellently reproduced, and the work forms an admirably planned and executed monograph.

*Handbuch der physikalischen und technischen Mechanik.* Herausgegeben von Prof. Dr. F. Auerbach und Prof. Dr. W. Hort. Band 7: *Grenzgebiete der technischen und physikalischen Mechanik.* Lief. 1. Pp. iv+238. Lief. 2. Pp. vi+239-490. Lief. 3. Pp. vii+491-814. Lief. 4: *Alphabetisches Sachregister zu Bände 1-7.* Pp. xv+815-853. (Leipzig: Johann Ambrosius Barth, 1928-1931.) 72 gold marks.

THE appearance of vol. 7 completes the publication of this great handbook of physical and technical mechanics (the successor to the famous Winkermann's "Handbuch der Physik"). Publication has proceeded at intervals since 1927, and previous parts have already been briefly reviewed in NATURE. The present volume is devoted to border-line branches of mechanics. Its articles and their authors are as follows: capillarity (Auerbach, 168 pp.), capillary chemistry (Freundlich, 19 pp.), disperse systems and the Brownian motion (Fürth, 40 pp.), thermodynamics (Auerbach, 48 pp.), kinetic theory of gases (Auerbach, 52 pp.), statistical mechanics (Fürth, 48 pp.), fluctuations (Fürth, 32 pp.), theory of solid states (Braunbek, 38 pp.), atomic mechanics (Joos, 33 pp.), constitution of matter (Bennewitz, 27 pp.), chemical status and dynamics (Bennewitz, 34 pp.), adsorption (Blüh, 42 pp.), technical application of adsorption (Berl and Andress, 20 pp.), the flotation process (Berl and Schmitt, 20 pp.), diffusion without dividing walls (Fürth, 70 pp.), osmosis (Fürth, 35 pp.), technical applications of electro-osmosis (Berl and Andress, 8 pp.), solutions (Fürth, 46 pp.), electro- and magneto-mechanics (Auerbach, 20 pp.). An alphabetical subject index to the whole of the seven volumes completes the work.

*Plant Ecology: for the Student of British Vegetation.*

By Dr. William Leach. (Methuen's Monographs on Biological Subjects.) Pp. vii+104. (London: Methuen and Co., Ltd., 1933.) 3s. 6d. net.

THE increasingly prominent position occupied by habitat factors in modern ecological work is reflected in this book, more than half of which is devoted to a discussion of climatic, physiographic and biotic factors and the methods employed in

their practical investigation. A particularly large section is devoted to soil problems and, having regard to their all-important ecological influence in Great Britain, this section should prove one of the most acceptable features of the book.

The sections dealing with biotic factors and plant succession are well done, the numerous examples illustrating clearly their mode of operation in specific plant communities. A chapter is given to the practical side of the subject in which directions are given for mapping vegetation, quadrat and transect observations, and estimating water content, organic matter and hydrogen ion concentration of soils. The book concludes with a short account on broad lines of the principal present-day types of British vegetation and of the post-Glacial changes which have occurred as revealed by peat investigations.

*Diseases of the Heart: described for Practitioners and Students.* By Sir Thomas Lewis. (Department of Clinical Research, University College Hospital, London.) Pp. xx+297. (London: Macmillan and Co., Ltd., 1933.) 12s. 6d. net.

THE name and reputation of the author of this book are sufficient guarantee of the accuracy of its contents and the wisdom of its teaching; but what makes it particularly attractive is its unusual arrangement, which is that of disorders of cardiac function, rather than of diseases of the heart. The distinction is no small one; a patient's heart concerns him only in its degree of competence to carry out its work; that this aspect should be the main concern of the physician is the basis of Sir Thomas Lewis's teaching, and one of the best features of his book is its departure from the traditional arrangement of "diseases of the pericardium, of the muscle, of the valves", preceded by the stock "anatomy and physiology". If any practitioner tends to forget that his work is to treat patients, not diseases, this book, and in particular a certain half-dozen paragraphs in the last chapter, will provide the reminder.

*Epidemiology, Historical and Experimental: the Herter Lectures for 1931.* By Major Greenwood. Pp. x+80. (Baltimore, Md.: The Johns Hopkins Press; London: Oxford University Press, 1932.) 9s. net.

IN this little book are reproduced the twentieth series of the Herter lectures, delivered in 1931 by Prof. Major Greenwood. The first lecture is historical, the second describes a biological experimental study of epidemics, and the third considers the subject of immunity. The biostatistical method of investigating disease in experimental communities leads the author to some interesting conclusions relating to the influence of the introduction of non-immune members into a herd; and although it does not yet contribute any suggestion to the problem of controlling epidemics, its more extended application may indicate the means by which real progress can be made.