

An Introduction to Nematology

By B. G. Chitwood and M. B. Chitwood. Section 1, Part 1. Pp. 53. (Baltimore, Md.: Monumental Printing Co., 1937.) 2.50 dollars.

THE Nematode worms, although forming a large class which includes many economically important species, usually receive little attention in zoological textbooks. The appearance of a comprehensive account of them in the English language is therefore to be welcomed, and the work, of which this is the first part, will probably contain many surprises for zoologists unfamiliar with the great mass of recent work on the group.

The first chapter contains a semi-popular account of the occurrence, mode of life and economic importance of the Nematodes, and a brief outline of the history of their study. There follows a short summary of their general structure, which might with advantage have been written rather more simply and with fewer technical terms of very recent origin. The next two chapters are devoted to detailed accounts of the cuticle and hypodermis and of the musculature and body-cavity, and will doubtless be followed by chapters on the other organs and systems.

Two "outline classifications" are included, the first containing short definitions of subclasses, orders, suborders and superfamilies, the second still briefer definitions, but extending to subfamilies. The classification adopted embodies advanced views which have not yet stood the test of criticism, and it may be doubted whether the primary division of the class into "Phasmodia" and "Aphasmodia", based on the presence or absence of a pair of small sense-organs on the tail, will prove generally acceptable. The authors' views on taxonomy need not, however, detract from the usefulness of the work.

The text is printed in double columns of rather small type, which some will find a disadvantage, but is profusely illustrated with good figures. A useful feature is the separate bibliography at the end of each chapter or section.

H. A. B.

Logging—Transportation :

the Principles and Methods of Log Transportation in the United States and Canada. By Prof. N. C. Brown. Pp. xv+327. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1936.) 20s. net.

PROBABLY about two million people in North America are dependent on the timber industry. This is at present carried on entirely in virgin forests, though replanting and conservation are safeguarding them for the future. Obviously Nature alone cannot have developed either roads or navigable streams in such parts, and it hence becomes clear that half the cost of board or beam is absorbed in its transport; hence this text-book specialized solely to this one question. The operations after felling are the assemblage of the tree trunks at convenient spots (skidding) and the long-distance transport to the saw mills. Up to the present, the cheapest and most convenient means of transport have been streams and rivers, but these are unsuitable to the heavier hardwoods; and much of the standing timber now

lies at higher elevations and remote locations. The question is one of the value of the timber: whether it will pay for the necessary horse or power tractors or chutes to assemble it for water flotation or for rail. The whole book is the story of the engineers' ingenuity in the adaptation of their needs to local topography, and they are the class who will appreciate this admirable and well-illustrated book.

A Manual of Practical Anatomy :

a Guide to the Dissection of the Human Body. By Prof. T. Walmsley. New edition. In 3 Parts. Part 1: The Head and Neck. Pp. viii+357+3 plates. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1936.) 12s. 6d. net.

THE study of practical anatomy remains, along with instruction in clinical examination, the best of the scientific disciplines to which the medical student is subjected. Each, however, must discard what is redundant, useless or unnecessary, and each must adopt new methods when they are better. In anatomy much useless information has been assembled and taught about the relations of one structure to another. On the other hand, much valuable information about the structure and function of the body has not found its place. For many purposes the X-ray machine is better, more informing and more accurate than the method of dissection.

The present book is shorter than others, and does something to lessen the drudgery of the student. By keeping to illustrations that are simple it remains a dissecting manual, and in furnishing outlines to be filled in by the student it uses a valuable device for learning. The value of the X-ray method of studying anatomy is shown by the reproduction of X-ray films. The skilful use of small print helps the student to evaluate better the information he is acquiring.

This useful and straightforward dissecting manual is a contribution towards a more satisfactory presentation of the anatomy of the human body.

A History of Fishes

By J. R. Norman. Second edition. Pp. xv+463+8 plates. (London: Ernest Benn, Ltd., 1936.) 15s. net. FIRST published in 1931, this book is by now sufficiently well known and appreciated to render a lengthy review unnecessary. A veritable encyclopædia on fish-life, profusely illustrated by Lieut.-Col. W. P. C. Tenison, it is a most interesting and useful volume which most specialists and many laymen would like to have on their bookshelves. Hitherto, the published price of 28s. net has prevented this, but the recent issue of a photo-lithographic reproduction of the original work, at the much more favourable price of 15s., will enable many more to purchase a copy. Comparing this second edition with the first, it must be admitted that the print has lost quality in the process of reproduction, although the general result is surprisingly good. The binding, however, would seem to leave something to be desired, since the plates (at least in the reviewer's copy) will soon become detached, including the most attractive photograph of the angel fish which forms the frontispiece.