

suggests that Mr. Pincher has not only studied his subject and the art of putting it over, but also the public whom he is trying to reach.

There is also a third group of the reading public for whom the scientific author tries to cater. This is the laity with strong interests in a particular hobby or craft and who are always keen to extend their knowledge of the hobby or craft. In "A Study of Fishes", Mr. Pincher sets out to provide scientific information for the angler which will add to his understanding and, by replacing some of the theories which rely more upon imagination than objectivity, improve his technique on the bank or shore. The book is thorough and contains much that will help the fisherman to understand practical points which he has picked up by experience and hearsay. It is doubtful if the author is wholly successful, however, for whereas topics like the bending of light, the dyeing of maggots, and streamlining should present no great difficulty, sections on breeding and pigments with strange words like genes and chromosomes and peculiar chemical formulæ of substances like melanin might prove to be very disconcerting. The frequent use of American names like killifish and squeteague is equally disturbing, and, although the name and usual location of strange fish can be found in a well-prepared list at the back of the book, the general reader is usually not adept at making frequent references to another part of the book. For him this is meant to be a work to read and not an encyclopædia. If these defects are eliminated in subsequent editions, there is little doubt that "A Study of Fishes" will become a book read and valued by many anglers.

T. H. HAWKINS

DEMOCRITUS OF ABDERA

Le dottrine di Democrito d'Abdera

By Federigo Enriques e Manlio Mazzziotti. Pp. xxii + 339. (Bologna: Nicola Zanichelli, 1948.) 1,500 lire.

FEDERIGO ENRIQUES, whose death at the age of seventy-one occurred in 1946, was one of the leading Italian mathematicians of our time; he is especially renowned for his joint creation, with Castelnuovo, of the invariantive theory of algebraic surfaces, which will remain one of the glories of Italian mathematics. As an example of versatility, moreover, Enriques was outstanding; for, over and above his purely technical achievement, which suffices to place him in the front rank, he maintained a lifelong interest in the history and problems of science which, in the "Encyklopädie", his books and articles on one hand, and in his lectures at Bologna and Rome on the other, earned him a second reputation. Above all, he was attracted to speculation concerning the Greek contribution to science, partly, no doubt, because the fragmentary nature of the evidence leads to fascinating conjecture.

At his death Enriques left two completed manuscripts, one (in course of publication) on the theory of surfaces, and the other on the atomist Democritus of Abdera (c. 500 B.C.). Knowing the man, one can readily appreciate the appeal of this theme—the reconstruction and interpretation, from stray sentences and commentators' allusions, of the thought of a philosopher whom Enriques esteemed among the greatest of the Greeks. The difficulty of the task is increased by the fact that no one can be sure how

much of the fragments remaining to us is due to Democritus and how much to his master, Leucippus.

Like much of Enriques's work, the book is a collaboration, in which the arrangement and interpretation of the text is due to Dr. Mazzziotti, the superstructure being largely Enriques's own. Each chapter deals with a particular aspect of Democritus's contribution to philosophy; it opens with a detailed and acute critique of the subject-matter from the modern scientific point of view, after which come the various classical texts (in Italian translation), accompanied, wherever necessary, by brief comment or explanation. All this material is arranged in thirteen chapters, which cover the whole field of Greek thought, from natural science and geometry to biology, logic and ethics. The masterly comments can be read and enjoyed for their own sake, irrespective of their bearing on the historical and technical problems which the author seeks to elucidate; and the book should, therefore, reach a wide circle of readers.

L. ROTH

VETERINARY PROTOZOLOGY

Veterinary Protozoology

By Prof. Banner Bill Morgan and Prof. Philip A. Hawkins. Pp. viii + 195. (Minneapolis, Minn.: Burgess Publishing Co., 1948.) 4 dollars.

THIS book has been written for veterinary students, practising veterinarians and agricultural students, and its scope is similar to that of U. F. Richardson's book reviewed recently in these columns (*Nature*, 162, 756; 1948). It is a useful book, full of practical information; but the size of its page (11 in. × 8½ in.) makes it rather inconvenient to handle, and its small type, clear though it is, is not read with comfort on a page of this size. Its illustrations, with the exception of the frontispiece, are all in line and stipple, and are all unusually large. Many of them are so much simplified that they lose much of their value. One cannot help thinking that a reduction of their size would have made a smaller page possible and would have released space for more of the useful text.

One doubts, for example, whether any reader will require a *Tritrichomonas* four inches in overall length; or coccidian oocysts on a similar scale, which do not show the spores and residual bodies which are essential if the figures of the oocysts are to be aids to diagnosis of the species. Photographs of oocysts are used in other books, and they give a much better idea of what is actually seen through the microscope. The frontispiece, a microphotograph of *Tritrichomonas fetus* magnified until it reaches an illustrated length of 7½ inches, cannot be called a satisfactory representation of this species, and the diagrams of it printed elsewhere in the book are more useful.

The text of the book contains a great deal of valuable information. It begins with a brief general account of the Protozoa, which might have been more carefully worded. Of the Sporozoa, for example, the authors say that "Reproduction is by schizogony (spore formation)", a phrase which fails to distinguish between the asexual process of schizogony and the formation of spores after a sexual process. A similar failure to supply the biological basis of the veterinary specialist's work is evident in the statement that