

are copies, in some instances almost photographically exact, of cases in the Natural History Museum?

Mr. Robinson has kept his best wine for the last. He has seldom, if ever, written anything more fresh and charming than the description, in his concluding pages, of the voles and water-hens of the osier bed in which in boyish days he dodged his hated enemy the keeper, slipping once, as he tells us, when suddenly surprised, into the water, and sitting there "like a coot with only head above the surface, and that half hidden by reeds!" The boy is father to the man, and we can pay the writer no higher compliment than to say he has proved himself worthy of his parentage. T. D. P.

OUR BOOK SHELF.

Studies on the Ectoparasitic Trematodes of Japan. By Seitaro Goto, *Riyakushi*. (Published by the Imperial University, Tōkyō, Japan, 1894.)

THIS memoir extends to 275 pages, and is illustrated by twenty-seven plates. The species on which these studies were made, were for the most part collected by the author himself, from various parts of the Japanese coast, between the years 1889 and 1892. For the present he omits the Gyrodactylidæ, as his investigations of the anatomy of this group are not yet completed. After a brief introduction, in which the method of preparation is described, the details of the anatomy of the several systems, as met with among the species of the ten genera found in Japan, are given; this is followed by some notes on the habitat, powers of locomotion, food and colouration of the several forms, and then we have the systematic portion. By far the greater number of the species were found attached to the gills of fishes, but several live in their oral cavity, and some even on the outer surface of their bodies. In one remarkable instance, that of *Tristomum biparasiticum*, the worm was found always attached to the carapace of a copepod, itself parasitic on the gills of *Thynnus albacora*. The "looping" movements observed by Haswell have been often witnessed by Goto, sometimes they are performed so rapidly in succession as almost to escape observation; lateral movements in some instances were noticed. Whilst the greater number feed on the mucous slime of their hosts, some were undoubtedly blood-suckers. In the systematic description, attention is drawn to the important specific characters to be found in the "hooks" which are often present, near the posterior end of the body. Thirty species belonging to the following ten genera are fully described: Microcotyle, Axine, Octocotyle, Dicliphora, Hexacotyle, Onchocotyle, Calicotyle, Monocotyle, Epibdella, and Tristomum. While none of the genera are new, some of them have emended diagnoses, and the information about the various species included in each is brought wonderfully up to date. Of the thirty species, all are described as new; one, *Dicliphora smarvis*, was found in the mouth cavity of *Smaris vulgaris*, taken in the Bay of Naples; all the rest are from Japan. Owing to the often very imperfect descriptions given by previous describers of species, it is possible that some of those described by Goto may on further investigation rank as synonyms, but most of them are strikingly distinctive forms. *Octocotyle*, Diesing, and *Dicliphora*, Diesing, have been combined by many in the genus *Octobothrium*, F. S. Leuckart; but the author gives good reasons why Diesing's genera should be retained, characterising the former genus anew. The author's drawings have been

beautifully lithographed; the plates have been all executed at Japan, and will bear comparison with any similar work done in Europe. A very complete bibliography of the literature cited is appended. We venture to suggest, that it is a duty of all biologists to send copies of their published writings to the Library of the Imperial University of Japan, where they will be used and appreciated.

Woman's Share in Primitive Culture. By O. T. Mason, A.M., Ph.D. Pp. 286. (London and New York: Macmillan and Co., 1895.)

ANTHROPOLOGY—the science of man—has been sadly neglected in the past, but there are signs that it will be more extensively studied in the future. We believe it was a president of the Anthropological Institute who pointed out, a short time ago, that while such societies as the Zoological, Geological, Linnean, and others were in a flourishing condition, the Institute which has for its object the study of man had only a membership of three or four hundred. This strange state of things is difficult to account for, though probably it is due to some extent to the absence of ethnological material to work upon in the British Isles. It is very well known that, in the United States, the Bureau of Ethnology publishes most elaborate reports upon anthropological topics; but the opportunities for such study in America are far greater than they are here. Prof. Mason is one of the foremost workers in the field of ethnology understood in its widest sense, and he is particularly qualified to trace the story of the part played by woman in the culture of the world. The volume in which he does this is the first of an anthropological series intended for the intelligent reader, but instructive enough to satisfy the student. The author describes the work of woman in all the peaceful arts of life, and shows that the past achievements have had much to do with the life history of civilisation. The book is very well illustrated, and is a desirable acquisition to the library of every one interested in woman's work. A large share of attention is given to women of American races; but, as the author is curator of the Department of Ethnology in the U.S. National Museum, this might have been expected.

A Text-book of Sound. By E. Catchpool, B.Sc. Pp. 203. (London: W. B. Clive, 1894.)

AS an elementary text-book dealing with the physical processes which cause the sensation of sound, we think this deserves praise. It will certainly give the student the knowledge required before the more elaborate treatises can be read with profit. The author writes as a well-informed teacher, and that is equivalent to saying that he writes clearly and accurately. There are numerous books on acoustics, but few cover exactly the same ground as this, or are more suitable introductions to a serious study of the subject.

Ottica. By Prof. Eugenio Geleich. Pp. 576. (Milano: Ulrico Hoepli, 1895.)

THIS well-constructed manual will compare favourably with the best elementary text-books of optics. It is attractively designed, handy in size, and scientifically arranged. First the phenomena and theory of refraction, reflection, and dispersion are described; optical instruments form the subject of the second part of the book; interference and dispersion the third part, and optical phenomena of the earth's atmosphere, the fourth part; various interesting notes, and a comprehensive bibliography, conclude the volume. The optics of astronomical instruments are treated much more fully than is usually the case in elementary text-books.