

Modern Sociologists

(1) Tylor. By Dr. R. R. Marett. Pp. 220. (2) Pareto. By Franz Borkenau. Pp. 219. (London: Chapman and Hall, Ltd., 1936.) 6s. net each.

THESE two little books inaugurate a series under the editorship of Prof. M. Ginsberg and Mr. Alexander Farquharson, in which the contributions to sociology of the more important of modern thinkers will be set out for the use of students and the benefit of a wider public. The first two volumes should be read together, not only for the contrast in the character and careers of the two men with whom they deal, but also for the insight they afford into the diverse ways in which modern sociological theories have come into being.

(1) Dr. Marett writes of Tylor and his work with the close and intimate sympathy of personal friendship and an association in anthropological studies lasting over many years. Without losing sight of the special purpose of the series of which his book forms part, he has produced the best account of Tylor's achievement that has yet appeared. It will serve to correct numerous misapprehensions that have arisen from the strictures of less thoroughly informed critics.

(2) Pareto stands in a different category from Tylor, though he too ended his life as the occupant of a professorial chair. His early and formative years, however, were passed as a man of action. He was an engineer in the service of the Italian Government until his political views and activities made it necessary for him to relinquish his official position. He seems to have been most strongly influenced by his antagonism to the views of Mazzini, of whom his father had been a supporter in the revolutionary movement. Hence, whereas Tylor's contribution to sociological thought is an integral part of a theory of the development of culture as a whole, Pareto's sociological theory seems to emerge from an opposition to humanitarian liberalism and the trend of Italian politics rather than from a general philosophical position which determined his outlook. His doctrine of the place of force in the State finds its embodiment in Mussolini; but his death took place before this had become fully apparent.

Exotic Aquarium Fishes:

a Work of General Reference. By William T. Innes. Pp. 464. (Philadelphia: Innes Publishing Co., 1935.) 5 dollars.

It will certainly surprise most readers to learn that there are about sixty flourishing aquarium societies in North America, and that there is a well-organised trade in about three hundred species of fresh-water fish. These are brought mainly from the tropics, where the fish are more brilliant in colour and often of bizarre shape. Here these fish are nearly all represented by photographs, many of them coloured. The fish are properly classified and named, and under each there is a description of the fish with an account of its spawning and its food and a note as to the temperature required. There are often practical hints as to keeping it in health and in some cases as

to line breeding. This systematic part is preceded by a discussion of the primary principles, namely, sufficient oxygen, enough light, right temperature and correct feeding. There are directions as to prepared food and the collecting of such live foods as *Daphnia*, mosquito larvæ, *Tubifex* and various other forms, together with the culturing of enchytræids and infusorians. Then follow the enemies of fish—water beetles, dragon-fly larvæ, *Hydra*, various other insects and *Argulus*.

Of diseases and parasites there are far fewer in aquaria than in Nature. The chief troubles are a parasitic protozoon (*Ichthyophthirius*), which burrows into the skin and later gives entrance to fungus, and a fluke (*Gyrodactylus*), for both of which remedies are suggested. Various molluscs and crustaceans are valuable scavengers in aquaria, but the success of these largely depends on the proper growth of plants, of which there is a valuable account. The book is not intended for the professional zoologist; but it will be found of great value in his reference library.

Organic Syntheses:

an Annual Publication of Satisfactory Methods for the Preparation of Organic Chemicals. John R. Johnson, Editor-in-Chief. Vol. 16. Pp. v+104. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1936.) 8s. 6d. net.

THE latest addition to this series maintains a high standard of efficiency and utility. It contains details of twenty-eight preparations, together with three pages of later references to matter appearing in earlier volumes. The index covers vols. 10–16.

1,4-Diphenylbutadiene is prepared by the condensation of phenylacetic acid and cinnamic aldehyde, in presence of acetic anhydride and litharge. A somewhat similar condensation of phenylacetic acid and glacial acetic acid in presence of a thorium oxide catalyst, yielding methyl benzyl ketone, is accomplished at 430°–450° in a neat electrically heated furnace, figured in the text. Methylhydrazine sulphate is made by the action of dimethyl sulphate on benzalazine (prepared from benzaldehyde, hydrazine sulphate and aqueous ammonia), the other products being the recovered benzaldehyde and methyl alcohol. In recrystallising that useful reagent, *p*-nitrobenzyl bromide, from ligroin, the inverted filtration method of Bost and Constable (figured in the text) is recommended, since it reduces the fire hazard and facilitates the manipulation of the lachrymatory solution.

Quinone is prepared in a yield of 92–96 per cent by oxidising hydroquinone at 40° with sodium chlorate in presence of dilute sulphuric acid and a little vanadium pentoxide. Furan is hydrogenated almost quantitatively to tetrahydrofuran (tetramethylene oxide) in presence of a palladous oxide catalyst, of which the preparation is described. Among other interesting preparations included are β -alanine, epichloro- and epibromo-hydrin, *n*-hexaldehyde, the two dimethylhydrazines (as hydrochloride), and *sym*-trithiane. J. R.