

physiology and metamorphoses of insects, will find in this work the very aid that is most desired. With this work and some other like Comstock's Manual, any student of ordinary ability can begin at the very foundation of entomology and work his way upward, fully as easily as has heretofore been possible in zoology. The advent of this work certainly marks the trend of entomological studies in America. In future, except in some particular groups, we are to have less species-making and more studies of the development and transformations of those already well known in the adult stage, as well as of their inter-relations with each other and with other organisms about them. We shall not study dried corpses, alone, but life in connection therewith, and the possession of pinned specimens of the adults in our cabinets will only increase our desire to know more of the problems of their existence

F. M. W.

HANDBOOK OF INSECTS INJURIOUS TO ORCHARD AND BUSH FRUIT. By Eleanor A. Ormerod. London: Simpkin, Marshall & Co., Sept., 1898. 8 vo., 286 pp.

The excellent work which has been done for economic entomology by Miss Ormerod, particularly in England, but also in many other parts of the world, is well known to every one. Her valuable annual reports are eagerly looked for every year by all interested in the practical application of the study of insects for the prevention of their injuries to crops. We have just received from this talented authoress another evidence of her unselfish labours for the good of her countrymen. The above named volume is in reality a compendium of the original observations made during the last twenty-one years by Miss Ormerod and her correspondents, together with the latest results and the most approved remedies for the various pests of large and small fruits.

As in all former publications bearing Miss Ormerod's name, the arrangement of the subjects, for convenience of reference, the presswork and the general get-up of the volume, bear the stamp of a most careful and tasteful masterhand. The different fruit crops treated of are: Apple, cherry, currant, gooseberry, medlar, nut, pear, plum, quince, raspberry and strawberry. At the end is a list of the fruit crops infested by insects with the names of the insect infestations; the subjects are arranged alphabetically; and after the name of each tree or crop mentioned in the work the names of each of the infestations to which it is liable in England are classified under subordinate headings as Bark, Blossoms, Fruit, Leaves, Shoots, Wood according to the nature of the attack. The insects are given with their scientific and popular name and so far as possible are arranged together as to kinds, as Aphides, Beetles, Moths, etc., with the number of the page of the detailed observation in the volume. In four instances where the pests are causes of much mischief to several kinds of crops, the infestation appears under its own name. These exceptions are Earwig, Red Spider, Root-knot Eelworm and Wasps.

Particular mention must be made of the excellence of the illustrations which seem to be perfect types of what such illustrations should be in works on insects for the use of practical fruitgrowers.

J. F.

THE BUTTERFLY BOOK, a popular guide to a knowledge of the Butterflies of North America, By W. J. Holland, D. D., Chancellor of the Western University of Pennsylvania, etc., Pittsburg, Pa. One vol. 4to., pp. 382. [Price \$3.00 postage prepaid. Copies may be procured from the Author, or William Briggs, 29-33 Richmond Street, West, Toronto.]

It is with great pleasure that we announce the publication of this beautiful popular book on the Butterflies of North America. Hitherto the vast number of young people who begin collecting insects have had their enthusiasm sorely chilled by their inability to find names for their specimens and have soon given up the pursuit in despair. Now, there need be no difficulty as far as the butterflies are concerned. In the handsome volume before us there are no less than forty-eight beautiful colored plates, produced by a new process from photographic representations of specimens from the Author's cabinets and on them are depicted over a thousand butterflies, belonging to 527 species. The colors are remarkably true to nature and a child should have no difficulty in identifying any specimen that he may capture from the plates alone. In the letter press brief de

scriptions are cut shewing ings, size, distribution authors, who illustrated anatomy of and the price dispersed through in which the experiences heartily contributed

One of Harrington, Breton, on school and application to Ottawa at Post Office 1 is chief clericalastic naturalist of the Council in it ever since of Canada; some years Entomologist

Beginning Reports. A Elateridae (1887), Insect House-flies, C Wasps and Insects from 1893 and more technical has described thorough and judge.

In 1894 is now in the coming year enriched by publication.