

BOOK NOTICE.

MISCELLANEOUS ENTOMOLOGICAL PAPERS. BY F. M. WEBSTER:
Feb., 1894.

We have just received a neat pamphlet of 59 pages, which forms Bulletin 51 of the Ohio Agricultural Experiment Station. It is by Prof. F. M. Webster, and, like all his work, shows careful preparation.

The insects treated of in the first part are:—The Asparagus Beetle, the Western Corn Root-worm, the Broad-striped Flea-beetle, Blister Beetles, the Basket Worm, the Cabbage Aphis and the Apple-leaf Louse.

An interesting account of the insects which have been introduced into the State is given under the head of "Some Insect Immigrants in Ohio." There appear to have been two great highways which insects imported from Europe have followed: those which have entered the State at its north-eastern corner and spread westward, and those from Southern Europe which have generally entered by the way of the Ohio Valley and have a more or less restricted northern distribution.

In the article "Insect Foes of American Cereals" the writer is evidently dealing with a subject of which he has made a special study. By patient observation and the application of practical common sense, Prof. Webster has made some important discoveries in Economic Entomology. Not the least of these is the fact recorded in this pamphlet that the Apple Aphis passes part of the year as an injurious enemy on wheat. In fact Mr. Webster says: "So far as my observations go, it is more detrimental to the wheat than to the apple." This is an important discovery, and will doubtless draw the attention of entomologists to this important subject of the "Alternation of Generations" among the Aphides—a line of investigation which has engaged much of the time of Messrs. Riley and Howard at Washington. Speaking of remedies, Prof. Webster says: "It would appear almost visionary to advocate spraying apple orchards with kerosene emulsion in mid-winter to protect the wheat crop, but nevertheless one of the most serious enemies of young fall wheat passes its egg stage on the twigs of the apple during the winter season. I refer to the Apple-leaf Louse, *Aphis mali*, Fab."

"Soon after the young wheat plants appear in the fall the winged viviparous females of this species flock to the fields, and on these give birth to their young, which at once make their way to the roots, where they continue reproduction, sapping the life from the young plants—