THE CLOVER-LEAF WEEVIL, *PHYTONOMUS PUNCTATUS*
(FABR.) IN ITALY.

BY F. M. WEBSTER, WOOSTER, OHIO.

When Dr. J. A. Lintner prepared his first annual report in 1882, he, with the aid of Drs. Hagen and Le Conte, failed to discover any record of the clover-destroying habit of this species in Europe, and it was supposed at that time that this was a newly acquired habit, and occurring only in this country. Indeed, Dr. Le Conte failed to learn anything whatever in regard to the food habits of this species. As it has now entered into the Mississippi Valley and is rapidly pushing its way westward, it will be of interest to those who will have to deal with it in future to know that its taste for clover was not of American origin, but had been observed in its native home many years ago. It is a matter of surprise to me that nothing is said, by Italian observers, that gives the least hint of injury by the larvæ, which is, with us, by far its most destructive stage. Nor do I find that Sig. Piero Bargagli, from whose very useful work, *Rassegna Biologica di Rincofori Europei*, I have taken the following extract, anywhere mentions the larva of this species, which he considers under the name *Hypera punctata*, Fab.

Here in Ohio, I find that the larvæ prefer the white clover to the red, and some unsatisfactory observations of mine, made quite recently, make me feel rather suspicious that the food of the adult may include plants other than clover. At Chautauqua Lake some years ago, I observed the adults in quite numbers floating about in the water, into which I supposed they had either dropped or been blown from the trees. But if this were so, what were they doing there?

(From *Rassegna Biologica di Rincofori Europei*, p. 97-8, 1883-87.)

During the years 1867-70, *Medicago sativa* and *Trifolium* were very much damaged in Lombardy and Bologna by this insect; and on the 4th of June, 1868, Mr. Antonio Villa, in *Relazione sugli insetti che devastano il Trifoglio, Milano, 1868*, and again in *Sull' insetto distruttore del Trifoglio, Milano, La Lombardia, 13 giugno, 1868*, directed the attention of the agriculturists of the district of Milan to the damage proven to have been done in the districts of Melegnano and Crema, attributing the extraordinary development of this species to the remarkable drouth, followed by excessive heat, causing the destruction of carnivorous insects which were hostile to this and other species. Various remedies were

employed for destroying the pests, among the most successful being the flooding of the meadows, rolling after the cutting of the clover, and, finally, collecting with small bags or nets.

In his second article, the eminent Mr. Villa stated the fact that, in the appendix to the work of Génè (*De quibusdam insectis Sardinie novis au. minime cognitis*, *Mem. R. Accad. Sc. Torino, Ser. I., Vol. 39, Ser. II, Vol. I.*), which had been prepared by Prof. Moretti, this species had been mentioned as among those having damaged clover. In pointing out how this insect had destroyed clover, Mr. Villa expressed the belief that an earlier attack had occurred, between the years 1834-35, in which the injuries done were similar in character to that of this species. The Station of Agricultural Entomology at Florence received notice, in June, 1879, that this insect had, in the Commune of Ferrara Erbagnana, destroyed a field of 5 ettari (about 11 1/3 acres) in extent. (See *Relazione intorno ai lavori della Stazione Entomologica agraria di Firenze*, by At Targioni-Tozzetti, in *Annali di Agricoltura del Ministero di Agricoltura e Commercio, Roma, 1879.*)

In the neighbourhood of Florence, besides having been found in the clover in spring, it was, nevertheless, observed in the winter among moss at the base of trees, and, though hibernating, during warm, sunny days would come forth and bask in the sun.

CORRESPONDENCE.

CHALCID PARASITE.

Sir,—I would like to record the occurrence of the following Chalcid parasite :—

Bred from eggs of *Ianassa lignicolor*, Walker, on oak (*Quercus alba*) forty-five examples of

CHAETOSTICHA PRETIOSA, Riley.

1879, Riley, CAN. ENT., xi., 161.

minutissimum, Packard.

1883, Pack., Proc. Bost. Soc. Nat. Hist., xxi., 37.

The insects varied in length from .35 mm. to .65 mm. In the males the abdomen was often black banded above or largely black. They appeared during the first part of August. Bred at Woods' Holl., Mass.

HARRISON G. DYAR.