

THE CIGAR CASE BEARER.



WILE at Mr. Harold Jones' fruit farm, at Maitland, on the St. Lawrence, last summer, we were shown this insect in large numbers, infesting his apple foliage. Under the direction of Mr. Fletcher, our friend Mr. Jones has been conducting numerous experiments for its destruction; and last May a Bulletin was published by Mr. Slingerland, of Cornell, upon this insect. The most effectual remedy seems to be a spray of kerosene emulsion early in June, when the little cases begin moving about, and the buds are opening; and a second application about a week later. Where the Bordeaux mixture is being used for apple scab

as buds open, Paris green may be added, and this spray will check the cigar case bearer, and the apple bud moth, which also needs treating at that time.

The emulsion should be made by dissolving half a pound of hard soap in one gallon of boiling water, to which, while hot, add two gallons of kerosene.

In order that our readers may be prepared for this new insect enemy we may briefly summarise its history by stating that the eggs, which are laid in June, hatch out in July, and mine the leaves until September, when they make a winter case in which they hibernate, attached to a twig (Fig. 905). Here the insect remains until about the middle of April, when it attacks the opening buds, the young leaves, the flower and fruit stems and the young fruit.

The accompanying engraving (Fig. 906) from the bulletin above mentioned gives a very correct idea of the appearance of the cigar case bearer at work, just as we saw him in Mr. Jones' orchard, and it can easily be imagined that the leaves would soon be well skeletonized and the trees sadly debilitated by his work. Towards the end of May the winter case is discarded for a large one, which the insect manufactures from bits of the leaves, as shown in Fig. 907, after which it begins the most damaging period of its existence. Protruding from its case, it eats through the skin of the leaf and mines out the tissue as far as it can reach and still hold to its case. Towards the end of June they pupate, and soon the moth emerges and begins its work by oviposition.



FIG. 905.—Small curved cases in which insect hibernates— one old case on right side. Twigs magnified to twice natural size, after Slingerland.