

leaves and blossoms, but they may be destroyed by a spraying early in the season, just as the buds are opening, with Paris green or other poison.

The chrysalids are formed in the ground, and may be destroyed by deep plowing, and the wingless female moths may be prevented from ascending the trees to lay their eggs by bandages of tar or other sticky material, or by projecting flanges of tin or fine wire-netting.

THE EYE-SPOTTED BUD-MOTH (*Tmetocera ocellana*), Fig. 16. Early in the spring the small brown caterpillars of this insect come out of the silken cases in which they have spent the winter and proceed to attack the opening buds, which are speedily ruined. Both leaf and blossom buds are destroyed, the flowers and leaves being tied together to form a shelter and devoured by the hidden inmate; sometimes, especially in young nursery trees, the caterpillar also bores down into the young shoots and causes severe injury. When full grown, about the middle of June, it is half an inch long, dark brown with a black head and collar; it then pupates and the small moth comes out ten days later. The moth is of an ashen-grey color, with a milk-white blotch across the middle of each fore wing and two eye-like spots, one near the tip and the other at the hind angle of the wing; from these spots it derives its name. From the eggs



Fig. 16. Eye-spotted Bud-moth and caterpillar.

now laid the larvæ are hatched in July and feed for a time on the leaves of the tree and then form their silken winter quarters on the twigs. The presence of the insect may be detected by the bunch of blackened and shrivelled leaves tied together at the ends of twigs. In the case of small trees in a nursery these may be cut off and burnt, but it is far better to ward off the attack both in the orchard and elsewhere by spraying the trees with a strong Paris green wash about the first of May and a week later; in any case the spraying should be done before the blossoms are displayed. It is advisable to combine the Paris green with Bordeaux mixture for the destruction of fungus diseases at the same time. If thoroughly done these sprayings will not only kill the larvæ of the Bud-moth, but also a number of other early insects, such as the Case-bearers, Canker-worms, Tent-caterpillars, etc.

THE OBLIQUE-BANDED LEAF-ROLLER (*Cacoecia rosaceana*), Figs. 17 and 18. This is another spring insect which appears soon after the buds open. The little caterpillars roll up and fasten together the young leaves and thus form a shelter in which they feed securely. When numerous they inflict a great deal of damage upon the foliage and sometimes injure the young fruit by gnawing the skin. The moth, which appears about