

with five rows of black spots. The wings are white, spotted with black, and the forewings have a yellow blotch at the base and a yellow band across them. There are, however, almost endless varieties of markings, from black of different shades, to white; some have the upper half of the wing white and the lower black, or the reverse; some have the ground colour of the wing (instead of merely a band) yellow; and in some cases the hinder wings are striped with black. The Moths appear about midsummer or rather later."

8. THE WINTER MOTH—*Cheimatobia brumata*, Stephens.

This insect resembles very much our species of canker worms (*Anisopteryx vernata* and *Pometaria*), which have been described by Mr. Saunders in the Report for 1875:

"The caterpillars of this moth are injurious to almost all fruit and forest trees. They feed on the young buds and leaves of the plum, apple, pear, elm, lime, willow, hawthorn, and many others, and occur at times in such great numbers as to cause a very serious amount of damage. The moths (known as "Winter Moths," from the season of their appearance), come out about the end of October. During November and December the females, which have only abortive wings, creep up the trees and lay their eggs on the leaf or flower buds, on the twigs, or in crevices of the bark.

"The eggs are greenish at first, and gradually change to brown or red. They are very minute, and very numerous (a single moth laying as many as two hundred), and they hatch about the beginning of April. The newly-hatched caterpillars are only about as thick as a horse-hair, greyish in colour, and may be seen swinging in the air at the end of their threads; when full-grown they are half an inch long, of a yellowish-green, with pale green head, black or blue line down the middle of the back, and whitish lines on each side. When walking they form a kind of upright loop, whence the name "Looper caterpillars." They feed first on the young unopened buds, and, as the leaves expand, they draw two or three together with their webs, and shelter themselves within when not feeding. When full-fed, towards the end of May (by which time they have often caused great damage), they let themselves down by a thread to the ground, bury themselves, and turn to chrysalids about two or three inches below the surface, from which the moths come up towards the end of October.

"The male moths have the fore wings of an ash-grey, with various transverse markings, and the hind wings of a greyish-white. The females have a most extraordinary appearance, from the great size of the abdomen and the small size of the abortive wings; they have no powers of flight, but fall down as if dead when alarmed, or run with some speed to hide themselves. In November the males may be seen, after sunset, flying from tree to tree, and the females creeping up the stems to deposit their eggs."

The same method of prevention is recommended in England as in this country, viz.: to encircle the trunk of the tree with some obstacle which the female cannot pass, and so prevent it from depositing its eggs upon the foliage.

9. THE GREEN ROSE CHAFER—*Cetonia Aurata*, Curtis.

This is the only other English insect injurious to fruit that remains to be mentioned, as it resembles in its habits our common May-beetle, or "June-bug" (*Lachnosterna fusca*), which often grievously injures the roots of strawberry-plants in its larval state, when it is familiarly known as the "White Grub." Both belong to the Scarabaeidae, or Digger family of beetles, described by Mr. Fletcher in the Report for 1879.

Miss Omerod thus describes the English insect:

"This chafer is injurious both in the larval and perfect state. In the first—that is, as a grub—it feeds on the roots of strawberries, grass, and other plants; as a beetle it frequents many kind of flowers, including the rose, from which it takes one of its names; but is more especially injurious by its attacks on strawberry-blossoms, and to the flowers of turnips left for seed, where it eats off the anthers from the stamens and thus renders the flowers abortive."

"The eggs are laid in the ground, where the maggots hatch and feed for two or three years. When full-grown they are upwards of an inch and a half in length, thick and