the end of June, is of a yellowish brown color with oblique darker bands across the fore wings, flat and broad, somewhat bell-shaped when the wings are closed, the hind wings are a paler yellow. The members of the family of moths to which this insect belongs are called Tortrices or Leaf-rollers, and infest a great variety of plants. Several species, besides the one here referred to, may be found on apple-trees. The sprayings recommended for the Codling-moth should prevent any injury from these small caterpillars.



Fig. 17. Leaf-roller Moth, wings open.



Fig. 18. Leaf-roller Moth, wings closed.



Fig. 19. Apple tree Pistol Case-bearer.

The Cigar Case-Bearer (Coleophora Fletcherella) and The Pistol Case-Bearer (C. malivorella), Fig. 19. These curious insects are to be found in early spring on the buds of apple and other fruit-trees. They are tiny yellow caterpillars which pass the winter in curved cases formed of pieces of leaves cut out for the purpose; in spring they move to the opening buds and devour the tissue of the leaves. The small shining steel-grey moths of the first species appear about the end of July and lay their eggs, from which the caterpillars are soon hatched, and attain about one-fourth of their growth before winter. At this time they are enclosed in brown leathery cigar-shaped cases and feed upon the soft substance of the leaves; the winter cases are curved and broader. The other species which forms pistol-shaped cases is not so common in Ontario, but may occasionally prove troublesome; its habits are similar to those of the Cigar Case-bearer. Both may be kept in check by the sprayings already referred to.