

and shrubs swarming with plant lice, for the powers of reproduction among the plant lice are so enormous that, if unchecked by these active and efficient aids, their numbers would increase to an extent at present inconceivable. In addition to those enumerated, there are species belonging to some other families of beetles which, either in the larval or perfect state, feed on other insects; but the three great families named stand pre-eminently out among the most useful of the insect tribes.

Among the four-winged flies (*Hymenoptera*) we have also many active and useful friends. Some of the larger species of wasps feed on insects, and many of them lay up a store of insects as food for their young. When preparing for the sustenance of their successors these sagacious creatures make cells in the ground, and having placed an egg therein, pack the cells with a sufficient number of insects to sustain the young larva when hatched until it reaches maturity. The cell, when filled, is sealed by the parent,

and in this the insect passes through its several stages of egg, larva, and chrysalis, finally escaping from this prison-house a perfect wasp, to continue its useful work. The fraternal potter wasp, *Eumenes fraterna* (Fig. 35), is one of these useful insects. All sorts of soft bodied insects are stored up in these wasp cells, especially caterpillars, and the wasps have the power either of so poisoning their victims that they do not die outright, but remain in a constant state of torpor, or else they inject some fluid into their bodies which preserves them, since they do not, when stored in these cells, undergo decay.

A far more important and useful family of insect killers are the ichneumon flies, which belong to the same order as the wasps. These active, sprightly creatures are all day long on the wing, searching everywhere, and prying into every nook and corner for caterpillars, in whose bodies they deposit eggs,

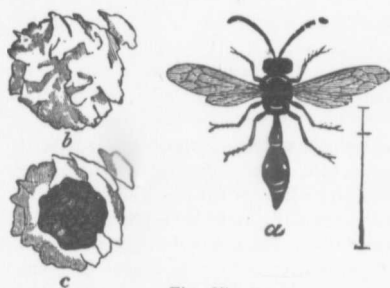


Fig. 35.



Fig. 36.

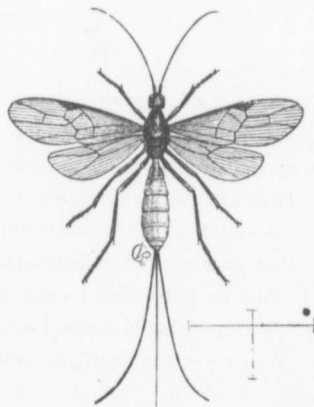


Fig. 37.

puncturing the skin and placing them underneath, where they hatch into tiny grubs, which sustain themselves on the bodies of their victims, avoiding the vital organs, but so weakening the caterpillars that they die either before or soon after passing into the chrysalis condition. In this manner myriads of caterpillars are yearly destroyed, the ichneumon usually changing to a chrysalis within the body of its victim, or spinning a cocoon upon its surface. In Figs. 36 and 37 representatives of this class are shown.