or early in May, and lays its eggs on the young gooseberries soon after they are formed. The eggs soon hatch and the tiny caterpillars burrow into the fruit, where they remain in safe concealment. When they have grown considerably they fasten two or more berries together with silken threads, sometimes biting off the stems in order to bring them more easily into the required position, and here they live securely with plenty of food convenient. This tying of the fruit together is more frequently done in the case of the wild gooseberry and the currant, which it also attacks, and whose berries are not large enough to contain the worm. When fully grown the caterpillar lowers itself to the earth by a silken thread, and there spins its cocoon (Fig. 33) among leaves or rubbish on the surface of the ground. In this state it lives all winter, the moth appearing, as already stated, the following spring.

The most obvious remedies for this pest are (1) picking off by hand all prematurely ripened or discoloured fruit and burning or otherwise destroying them. As, however, the worms are very active and quickly make their escape to the ground when disturbed, a close watch should be kept in order to trample under foot any that may get away. (2) Clearing up and burning all fallen leaves and other rubbish beneath the infested bushes, after the fruit season is over, and in this way destroying the insect in its chrysalis state. It is also recommended to dust the bushes freely with air-slacked lime early in the spring, renewing the application from time to time as may be necessary, the object being to prevent the moth from laying her eggs on the young fruit.

The Gooseberry Midge (*Cecidomyia grossulariæ*, Fitch)

Is another enemy to the fruit of the gooseberry. Its presence may be ascertained, as in the case of the previous insect, by the premature ripening or discoloration of the berries. It is a very tiny maggot, of a bright yellow colour and closely resembling the wheat-midge. It lives within the fruit both in its larval and pupal states, and the minute two-winged fly comes out about the end of July. How the species is perpetuated from one season to another is not yet fully known, but it is supposed that there is another brood in some later fruit or other suitable substance, and that in this way the insect is carried over the winter.

The same remedies may be employed as those given for the fruit-worm, care being taken to destroy the fallen gooseberries early in July, before the fly has had time to complete its transformations.

The Grape-vine Leaf-hopper (*Erythroneura vitis*, Harris).

This little insect, popularly called "The Thrips," often proves very injurious to the vine. The thin-leaved varieties, such as the Clinton and Delaware, suffer much more severely from it than those with thick leathery foliage. We have seen a small vineyard of Clinton grapes almost entirely defoliated before the end of the summer by the attacks of this tiny enemy, with the result, of course, that the fruit failed to mature and became simply worthless. The insect, of which there are several species known, belongs to the true bugs (*Hemiptera*), and like the rest of its order, lives by sucking the juices of plants.

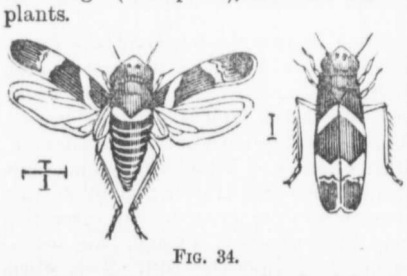

Fig. 34.

The accompanying illustration (Fig. 34) represents the perfect insect, greatly magnified; the natural size is shown by the short lines to the left of each figure, one representing the insect with wings expanded ready for flight, the other with the wings closed. The different species vary in colour and markings, but the one shewn here is dusky and red, with pale stripes.

"These insects—to quote Saunders's Insects Injurious to Fruit—pass the winter in the perfect state, hibernating under dead leaves or other rubbish, the survivors becoming active