

By the Chairman :

Q. The ordinary caterpillar's eggs are laid on the bark of the tree, are they not ?
—A. They are laid in a ring near the tips of the smaller twigs.

Q. Yes ?—A. The kind you mean can be easily destroyed by Paris green.

Q. Is the mixture applied to the trees in the fall of the year ?—A. The painting ? Yes, it is put on both in the autumn and in the spring, when the moths appear. The same bands can be left on during the winter and the material painted on to them again in spring.

The Cigar Shaped Case-bearer.—I will now pass on to another insect injurious to the apple tree, which has been successfully treated during the past summer. It is the cigar shaped case-bearer of the apple which is a small caterpillar that forms a case in exactly the shape of a very small cigar. It carries this case about with it and lives inside of it, while it eats the leaves, the young buds and forming fruit of the apple tree. It does a great deal of harm from its habit of frequently attacking the flower buds just as they are opening. It is difficult to fight against this pest because although it eats some portion of the surface of the leaves it is only a very small portion compared with the injury it does beneath the surface.

The method of attack is as follows :—The caterpillar eats a very small hole through the outer surface of the leaf and then extends itself inside between the two coverings of the leaf and eats out the cellular tissue, thus the only opportunity of poisoning it is at the time when it is eating its way through the skin of the leaf, when it makes a hole so small as to resemble the prick of a pin. Spraying experiments have been tried with Paris green mixed with the first sulphate of copper wash, which is applied immediately before the buds burst. Since spraying has become so generally adopted as a method of preventing injury by insects and fungous diseases, particularly the black spot of the apple, spraying with sulphate of copper first of all, and afterwards with Bordeaux mixture, is now well-known as an effective remedy, and we have no difficulty in getting fruit growers to spray when they are asked to do so, because they have had it demonstrated to them that excellent results will follow the application of these mixtures.

The cigar case-bearer will be much checked if 4 ounces of Paris green be mixed in the first sulphate of copper wash which is made by dissolving 1 lb. of sulphate of copper in 25 gallons of water.

Then again, following that at short intervals of about four days either with another application or two of Paris green, or with a kerosene emulsion wash. This is a mixture of soap suds and coal oil. Many kinds of insects can be destroyed with the kerosene emulsion also, but from a different reason. Whereas the Paris green destroyed them from being an active poison, the kerosene emulsion kills them by suffocation, the coal oil running over the bodies and stopping up their breathing pores. As I have stated, this is not an easy insect to fight against, but requires persistent work and frequently repeated applications. Three or four would be required early in the spring, and the results are certainly slow to obtain, but in the end success will be attained if the applications are applied regularly. Mr. Worden, of Oshawa, has had a great success in treating the same insect with a mixture of lye and Paris green, three pounds of concentrated lye in 45 gallons of water to which three ounces of Paris green are added.

The Peach Bark-borer.—In the Niagara district, and at Queenston particularly, a great deal of injury has been done during the past four or five years by a very small beetle which bores into the bark of peach trees. The peach bark-borer for some years has defied all efforts to control it, but the past year a practical remedy has been discovered. In trying a great many experiments, we found that by painting the tree with a carbolic alkaline wash this pest can be checked. The wash is made of soft soap, diluted sufficiently to permit of its being applied with a brush, with a strong solution of washing soda which makes it more alkaline, Paris green is then added, and enough carbolic acid to give the mixture a strong odour. We have been trying now for three years to get some remedy by which this injury could be stopped, and I am glad to say that we have now succeeded largely through the systematic efforts of Mr. Carl Fisher of Queenston. The present is the season of the year to apply the remedy for this troublesome insect.