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ture?—A. No,

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Entomophthora

abbage?—A. No.
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always supposed,
y and June, but
y move about and

may be found on the bark in March. Having discovered that, we are now able to treat them for a very much longer time than before, by the application to the bark, much earlier, of mixtures which will not injure the tree, but will penetrate the burrows of the beetle and destroy them, whereas in the months of active growth, it is almost impossible to apply anything to the bark of the young tree without injuring it, but by beginning earlier, I think we shall be able to deal with this insect successfully.

Belonging to the same family is another insect known in Nova Scotia as the Pin Borer or Shot Borer (*Xyleborus dispar*), on account of the small hole it makes. One of these little beetles will eat its way into a tree and destroy it. Its work seems to have a poisonous effect on the wood for some distance beyond the actual injury, and though I have not yet found a satisfactory remedy, I have had considerable success in washing the trees with alkaline washes, such as soft soap, or a mixture of soft soap and carbolic acid. The desideratum is to know the exact time when the insect is passing through its various stages. I have several careful observers at work helping me, by watching it in their orchards, and I have no doubt that in course of time we shall secure a satisfactory remedy.

A new insect in the St. Catherines district is the Grey Poach Wcevil (*Anametis grisea*), which crawls up the stem in spring and eats the flower buds. We find by studying the structure of the beetle, a means to fight against it is indicated, because unlike most beetles, it has wing cases but no wings with which it can fly. Therefore the application of anything round the stem, or even the tying of a piece of wadding round the trunk has the effect of preventing these insects from crawling up the stem and attacking the buds.

I will refer to one more small but very injurious insect, the caterpillar of a very small moth, *Coleophora Fletcherella*, which attacks chiefly apples, but also pears and plums. It passes the winter in the caterpillar stage, closely sealed up in a small curved case; it is at this time not half grown. The caterpillars collect together in clusters in the forks and c. the twigs of the tree. They leave their attachment in the spring and crawling up the boughs attack the young leaves. It is a small insect, but occurs in enormous numbers, and has done considerable injury. It has been treated successfully by Dr. D. Young, of Adolphustown, with kerosene emulsion, early in spring, and also by spraying with Paris green.

There are two other injurious insects of special note which have appeared in Canada since I last had the honour of addressing you. One of these is known as the San José Scale, and is well known on the Pacific coast on account of the enormous injuries it has done in California in the orange plantations there. It has been lately sent to me from British Columbia, and I am taking measures to have it stamped out as soon as possible. It is a scale insect, of the same nature as the Scurfy Bark-louse and the Oyster Shell Bark-louse of the apple; its latin name, *Aspidiotis perniciosus*, is significant of the great amount of injury it may be the cause of. It can be treated successfully with kerosene emulsion.

The other new pest which has invaded Canada is the Pear-tree Psylla (*Psylla pyricola*). Specimens have been sent to me by Mr. Freeman, of Freeman, Ont., whence it was brought from the state of New York, where it is abundant and injurious. Its life history has been worked out in the United States, and I do not doubt that with care we can stamp it out. On this first occurrence in Canada, it is reported as having attacked an orchard of three hundred Bartlett pear trees. Mr. Freeman is trying remedies persistently and before very long I hope he will have eradicated it from his orchard.

A NEW INSECTICIDE.

A new poison we are trying may be mentioned; this is called arseniate of lead. It is claimed to be better than many of the arsenical poisons we now use, in that it is not caustic and does not injure the foliage. It was first introduced by Prof. Fernald, of the Gypsy Moth Commission. An insect was introduced in this country by a student of silks, in New England, who thought by procuring insects from many parts of the world, he might be able to get new silk insects. Among these, he introduced one of the worst pests of all deciduous trees, from the north of Germany. It has spread