

With apple borers you can detect their presence owing to the thinner bark of a young apple tree but with this other borer you cannot see what is going on, owing to the thick rough bark of the maple tree.

*By Mr. Semple:*

Q. Can you recommend anything to be done to check the grasshoppers which are doing a great deal of injury in Western Ontario?—A. We can adopt the methods which are pursued in the Western States where the grasshoppers occur every year. In Ontario we have not often had serious occurrences of grasshoppers year after year such as occur regularly in the Western States. Where we have them it will certainly pay us to follow the plan which they have in the west, and that is to make hopper-dozers. These are light pans, containing at the bottom a coating of a sticky material. These hopper-dozers or pans are drawn over the fields before the young grasshoppers get their wings and gather them up by the bushful. The pans are very light and can be drawn over the field quickly by a single horse. In the States of Dakota and Minnesota they have to adopt this method of drawing pans or hopper-dozers over their fields nearly every year and they destroy the grasshoppers there by the thousands of bushels. In that way only have they protected their crops. On Sable Island during the past summer the injury was so severe that the Government had last autumn to buy large quantities of hay—a thing they had never had to do before—on account of the grasshoppers having eaten all the vegetation, and particularly all the hay upon which the wild ponies would have subsisted during the winter. They had to buy, I think, 50 tons of hay to feed these animals during this winter. That is mentioned in my report for 1895 with a diagram of a hopper-dozer. The only method of preventing grasshoppers is to take action early in the spring, say at the end of May, just at the time when the grass is beginning to shoot up and the young ones first appear. You will then see large quantities of the young grasshoppers in the grass. The pans of which I have spoken can be drawn over the fields without any injury to the grass and large numbers of grasshoppers and other insects injurious to grass will be destroyed. In vineyards and gardens such a method is not practicable. You can only poison them there with active poisons in the same way as you do other insects which bite their food. There is a mixture of bran and Paris green with sugar which has been used satisfactorily in vineyards in California. It is claimed the grasshoppers will eat it in preference to vegetation. The same remedy can be applied with more or less success in the case of the cut worm.

At the request of the Chairman I have brought with me to-day some honey produced at the Central Experimental Farm. The work carried on in the apiary has been done almost entirely by Mr. John Fixter, the Farm foreman, and it has been very satisfactory. He has carried out certain suggestions that I had made and that were made also by Mr. Holtermann, of Brantford, who has helped us in this work. The annual report of the Experimental Farm last year contained a statement of these operations and during the past summer further experiments have been carried on. Mr. Fixter has brought here to-day some samples of the different kinds of honey. He has also brought some sections of comb made in the apiary, and I think perhaps the most interesting experiments which have been carried out have been those with regard to different kinds of foundation. When the apiary started last year, Mr. Holtermann wrote and asked us if we would carry out some experiments with the different kinds of foundation. The central portion of the comb is formed from the foundation. The foundation is produced artificially, and is supplied to the bees, thus saving them a large amount of labour, time, and energy in producing the foundation, which is then "drawn out," as it is called. The wax in the foundation is drawn out and extended until it forms the cells of the honeycomb, such as I have in my hand. Now, according to the nature of this foundation, so is the comb which is produced, and I have here in my hand two sections of the comb which was made last summer by our bees and filled with honey. The honey has been extracted and we have the empty comb for examination. I have here a piece of the artificial foundation similar to that we put into the section. This is cut to the size of