

each. It can be seen that the bees removed the juices and pulp of the last pair because they could find working points at the punctured places, but the second pair, or the unpunctured fruit, simply dried like prunes, without the skin having been broken by the insects, and with the pulp left in place. The first pair or those starting to decay received some attention from the bees, but in my opinion they worked only upon that part of the fruit which had not yet decayed, finding their entrance in the skin at the edge of the decayed area. An examination of the reverse side of this pan shows the propolis, which plainly indicates that it has been for some time on the frames of the hive. May we not accept this as one of the evidences that bees do not cause the original injury to fruits which they visit?

Concerning bees carrying the serious and deadly germs of Pear Blight, I wish to establish the thesis that Pear Blight often appears without the intervention of bees, and that as these are not by any means the sole agents culpable for the dissemination of such germs, the pear growers are not justified in condemning the bee and desiring to exclude it from their orchards. We know that such action as been contemplated, as I was recently told of it and the effort made by some fruit growers in California to condemn and prohibit the keeping of bees near their pear trees, because they presumed these insects were the agents responsible for the spread of the Pear Blight. Mr. E. R. Root, of Medina, Ohio, went with them through their orchards, and showed them ants and other insects present in numbers upon the trees. He convinced them of the possibility of the blight germs being conveyed by these other agencies, and hence the impossibility of preventing its spread should all the bees be excluded from their orchards.

An illustration of my meaning in this regard is to be found in the attitude of some fruit growers toward the Robin Redbreast or American Robin. Some persons have raised a cry against this bird, demanding legislative proceedings for its destruction, because they claim that it carries upon its feet the deadly San José Scale, so destructive to most fruits. The facts are that the San José Scale is carried or disseminated by eight or ten other means besides upon the feet of birds, and in the last-named agency the

English Sparrow is far more effective as an agent in the dissemination of the San José Scale than is the Robin. In fact, any bird that would alight in a tree infested with this scale insect in its young and free-moving stage would be liable to carry the young pests upon its feet to any other place to which it might fly, as the Robin is only one of the known agencies in spreading the scale, this pest being carried by so many other means that the cry against it for such reason is not justified, and the spread of the scale would be practically as rapid and extensive were all the Robins destroyed in accordance with the demands made by a few fruit growers. Likewise, pear blight is disseminated by so many methods besides bees that no one is justified in making complaint against the bee on this account. In fact, it is not definitely proven that the Honey bee does disseminate the germs of this deadly bacterial disease, and on the other hand it is known that the disease may kill trees under conditions which prohibit the intervention of the Honey Bee. For example, this spring I planted an orchard of young pear trees late in the spring, when the weather was so cool that bees were not flying. Also, the trees just set out contained no blossoms, and I saw no signs of exuding juices or sap. Thus it was certain that there was nothing to attract the bees to them, and I am convinced that no bees were near these young trees. However, within a short time after planting the trees, they commenced to show signs of being infected with blight, and the disease spread over the trees, and finally killed many of them. It was probably carried to them by an infected pruning knife in trimming the branches, or by the wind, or by some other means even in the nursery before they were shipped. Thus we see that the condemnation of the bee in such case is entirely unjust. Let us unite to study and disseminate a knowledge of the truth, and if possible add new points occasionally to such an important though time-honoured subject as "Bees and Horticulture," and thus we may feel justified in our efforts.

HONEY FRUIT-CAKE.—Take $1\frac{1}{2}$ cups of honey, 2-3 cup of butter, $\frac{1}{2}$ cup of sweet milk, 3 eggs well beaten, 3 cups of flour, 2 teaspoonsful of baking powder, 2 cups raisins, 1 teaspoonful each of cloves and cinnamon.