

THE TINY INSECTS INDISPENSABLE TO FRUIT GROWERS.



R. FRANK BENTON, in *Insect Life*, takes up the question that bees are indispensable to fruit growers as follows: Bee keepers have never complained but that the growing of fruit in the vicinity of their apiaries was a great benefit to their interests, hence their position has been merely a defensive one, the battle waxing warm only when poisonous substances were set out to kill off the

bees, or when fruit growers sprayed their orchards with poisonous insecticides during the time the trees were in blossom, or again when efforts were made to secure, by legislation, the removal of bees from a certain locality as nuisances.

Fruit growers first relented when close observation and experiment showed that wasps bit open tender fruits, birds pecked them, they cracked under the action of the rains, and hail sometimes cut them, bees only coming in to save the wasting juices of the injured fruit. The wide publicity given to the results of the experiments made under the direction of the United States entomologist, and published in the report of the Commissioner of Agriculture for 1885, have no doubt contributed much to secure this change among fruit growers. But now it would appear that the bees have not only been vindicated, but that in the future fruit growers are likely to be generally regarded as more indebted to bee keepers than the latter are to fruit growers, for the amount of honey the bees secure from fruit blossoms comes far short of equaling in value that part of the fruit crop which many accurate observations and experiments indicate is due to the complete cross-fertilization of these blossoms by bees. The observations and researches of Hildebrand, Muller, Delpino, Darwin and others, as



FIG. 534.—DRONE.



FIG. 555.—QUEEN.

well as the excellent explanation of the subject in Cheshire's recent work have gone far to prove how greatly blossoms depend upon the agency of bees for their fertilization and hence for the production of seeds and fruits. The facts they have brought forward are gradually becoming more widely known among fruit growers and bee-keepers, and additional evidence accumulates. A case illustrating very clearly the value of bees in an orchard has recently come to the notice of the writer, and its authenticity is confirmed by correspondence with the parties named, who are gentlemen of long and extensive experience in fruit growing, recognized in their locality as being authorities, particularly in regard to cherry culture. The facts are these.