

projecting two feet at either end of the swarm catcher. This cotton serves the purpose of closing any further opening between the entrance of the mouth of the hive and the swarm catcher. At the wide end of the hopper and at the lower end of it are legs, attached by a screw, so that by swinging them backward or forward they can be shortened or lengthened and adjusted to uneven ground. In an apiary of a little over 100 colonies, we had eight of these swarm catchers standing at convenient distances.

**HOW APPLIED.** As soon as the swarm begins issuing, the swarm catcher is adjusted to the entrance and the bees pour into it, attempting to get out through the wire screens. In about five minutes, or ten at the outside, the swarm is in the swarm catcher, when the entrance of the catcher can be cleared up with the attached piece of cotton. We have found that the most convenient way to do this is to fold the cotton over it, and then tie a string about the mouth. I mention this because it is absolutely necessary to leave no opening through which the bees can pass from the catcher. In one catcher we made an opening  $\frac{3}{8}$  inch round and through this one bee at a time passed until the entire swarm was in the air.

**METHOD OF HANDLING THE SELF HIVER.** At first we dumped the new swarm at the entrance of the new hive at once, but this did not answer. The bees had the impulse to fly and, instead of entering the new hive, they took wing just as they would do if they were leaving the hive in the first place. If our experiment had stopped with this, we would have pronounced the self-hiver a failure. Another plan, however, suggested itself, and this was a complete success. The self hiver, mouth down, was set on end, the bees were kept in it until they clustered as they do in nature, and after this, when dumped at the entrance of the hive, they readily entered it.

#### CARNIOLAN BEES.

In last year's experiment with Carniolan Bees, we found, briefly, that bee hives on starters swarmed excessively, and built their comb very irregularly; but those hived on full sheets of foundation did not show any greater tendency to swarm than other varieties. The bees were gentle, and built up well in the spring.

During the season of 1898, the Carniolan Bees were the first to swarm, and with one exception the last. Even on full sheets of foundation, they showed a greater disposition to swarm. With that exception, they showed all the characteristics given above.

In addition, they took longer to cluster when swarming, and showed a marked tendency to swarm out. I remember particularly that one Sunday we had twice hived the same Carniolan swarm. The last time about 4 o'clock p. m., I said we would let it go. It was bad enough to be troubled on a week day, but Sunday it was beyond endurance. However, at 6.30 p. m., the swarm was still clustered in the tree it selected the first time, and we hived it.

A good trait we found was, that the Carniolans gave us the whitest and prettiest capped comb honey.

**CONCLUSIONS.** With the exception of a tardiness in clustering, which is of no great importance, and a tendency to much swarming, which is a serious defect, and particularly so for those of limited experience, they are the best bees we ever had. We would still advise caution in their introduction.

#### COMB FOUNDATION.

Last year some tests were made in connection with the production of comb honey. The sections were filled to a greater or less extent with foundation running from a starter to a full sheet. Last season the advantage was greatly in favor of a full sheet. This year the experiment was repeated, and a few sections were added without any foundation at all. The flow this year, although prolonged, was slower. We actually succeeded in filling in the super sections which contained full sheets of foundation, when the sections without foundation had not a particle of comb or honey in them; and the parti-