

swarming impulse has become pretty strong, he had better not put in the card of brood, but if the egg is only just laid, put in a card of brood sure.

Mr Holtermann: The way to shake the comb is to give it the second shake quickly after the first. If you know how to shake you can shake and not use the brush, whether there are Italians on or not.

Mr Pettit: I had considerable experience in shaking as soon as I found the cells. A little later I found this was not necessary; and when I found nothing further developed than eggs I simply destroyed all preparations for cells

confirmed by his obtaining his best queens from among the thirty correctly paired ones; but should his judgment have been at fault, one of his best queens may be found among the twenty mis-mated ones, and thus he will draw good blood into his strain that it would have been impossible to have obtained had all his queens been fertilized with drones of the selected strain. If the bee-keeper breeds queens and drones from his best colonies year after year, not only will his own strain keep growing better, but all the bees in his neighborhood will in time be improved by his work.

The larger the apiary and the longer the work is carried on in the same locality the greater are the facilities for developing and maintaining any particular strain. In rearing the best queens, careful and constant testing and selection are quite as important as good methods of rearing. Success, of course, depends on the care and skill of the breeder.

The summer climate of these islands is exceptionally cool, cloudy, windy and damp for a bee country; the days are long and the honey flow uncertain and often of short duration. Such a climate affords an excellent test for selection. In the more exposed districts, although fewer fertile queens can be produced, they can be of the highest quality when the harmful effects of natural in-breeding have been overcome.

Best Races of bees.—Although many successful bee keepers use only the native black bee, its profitableness is certainly increased by crossing it with other races the queens of which are more prolific. Some of these races are very good-tempered and prettily colored.

The best-known of these foreign races is the Italian (or Ligurian) bee a native of the mountainous regions of Northern Italy and Switzerland.

Queen-Rearing in England

By F. W. L. Sladen, F. E. S.

BREEDING FOR IMPROVEMENT.

Improving our bees.—The fact that we are unable to decide exactly which drones shall meet our queens does not seriously interfere with the improvement of our bees. On the other hand, it prevents in and-in breeding with its evils. Suppose, for instance, an apiary of fifty colonies is kept with a view to breed the best strain of bees for profit. Suppose that in the first year fifty queens of a certain superior strain are reared, also a number of drones of another superior strain for the purpose of fertilizing the queen. Perhaps thirty of these queens will produce workers of the desired cross, the remainder of the queens being fertilized by drones of other strains. In selecting his breeding queens the following year, the bee-keeper will, as before, be careful to pick out those whose colonies show the most good points. If there was no flaw in his previous year's judgment, it will probably be