

board. I proceeded in the same way with the rest of them, exchanging empty comb for brood, gradually increasing as there were bees to protect the brood, until the hive was full. By the time the fall flow of honey commenced, every hive was full and running over with bees, and they stored a large amount of surplus honey in a short time.

YOUNG QUEENS—WAY OF MATING.

In the nuclei formed by dividing up the old colony after swarming, and giving to each a mature queen cell, the queens are taken out and some of them mated. On several occasions I have witnessed a virgin queen leaving the hive to mate. She comes to the entrance, timidly looks around, and retires within the hive; in a few moments she reappears, comes out farther and returns; the third time she comes out and flies away boldly, with the drones in pursuit. In five minutes she may be expected to return, and if mated it will be plainly discernible in a thread-like attachment to her body, which the workers remove. When the weather is favorable queens usually mate when five days old, and begin laying in 36 to 48 hours after. When there is a dearth of honey in the fields, it is well to feed the nuclei to induce the queens to mate; for when there is no honey coming in they are in no hurry to be in readiness to rear a family. Bees are wise and provident little communities, and use their procreative powers with discretion.

INTRODUCING QUEENS.

The first important step in the introduction of a new queen to a colony, is to know that there is no queen in the hive. In rare instances there are two queens in a hive, mother and daughter living amicably together. I know of an instance where a veteran bee-keeper lost a valuable queen, a present from an importer, because of this. He removed one queen, naturally inferring that there was no other and introduced the valuable queen, which was destroyed. He learned too late that there had been two queens in the hive. When a queen had been removed and queen cells are started it is positive proof that there is no queen left in the hive. In Mr. Alley's work, giving his 22 years of practical work in rearing queens, he says that three days or 72 hours must intervene between the removal of the queen and introduction of a virgin queen. He advises smoking the colony with tobacco smoke and dropping the queen into the hive from a feed hole in the top, and fastening up the entrance with grass to keep in the smoke. The idea is to have them of all the same scent. I prefer another way, given by him, which is to roll the queen to be introduced in honey, and drop her from the end of a spoon among the bees. They will remove the honey,

and in so doing make her acquaintance. Mr. Alley says a queen cell may be given to a colony immediately after the removal of a queen. I think there is

A DIFFERENCE IN DISPOSITION

of bees, with reference to this, or in the handling of cells. Whenever I give cells to a colony upon the removal of a queen, they are destroyed; but if I wait until they have constructed cells of their own, they do not destroy those given them. If a hybrid colony swarms, I put in an Italian queen cell which is more mature, and when the queen emerges she will destroy all the other queens, and in this way the colony is supplied with an Italian queen with little work. We are now able to

SEND QUEENS SAFELY BY MAIL

to all parts of our country, to Australia, and the most distant islands of the sea for a trifling sum, and anyone can change bees to Italians, Holy Lands, Cyprians, Carniolans or Punicas, by procuring a queen of the variety his taste may desire, and introducing it to a colony of native or brown bees. I advise persons of small means to let the other fellows invest in new fads. There have been several, whose advent was proclaimed with the blast of trumpets and brass band, but which when weighed in the balance have been found wanting. Italians alone are the ones whose colors wash well.

A QUEEN CHANGES HER MIND.

Hearing the call, "bees are swarming," I went into a apiary where I saw a swarm in the air, acting strangely as if undecided what to do. A few clustered upon a peach tree, while many joined in the gambols of young bees, playing before hives. I soon discovered the hive from which they issued, and here was the queen on the alighting board; she had concluded the day was too cool to move, and re-entered the hive. Soon the news was communicated from one to another, and they all returned, and resumed their accustomed business at the old stand.

Our Winters Will Gradually Grow Milder

A REVERSE of seasons is supposed to take place upon this earth once in every 10,500 years, due to the varying inclination of the earth's axis. About 1,500 years ago we entered the epoch of a more genial winter temperature, and if nothing happens to prevent, we may expect a gradual softening of our winter climate during the next 9,000 years. When another glacial epoch will begin. What sort of a country will this be in the year 11,500? Will it resemble Egypt, with remains of great buildings, buried or sticking up out of the sand, and known to be more than 4,000 years old?—Scientific American.