

Whenever the apiarist wants a virgin queen he goes to his nursery, takes out one of these cages that contains a hatched queen and returns the nursery. The bees will feed and care for all these young queens so long as they are gathering honey, but as soon as the honey flow ceases, the young queen will be neglected and the apiarist must then feed this colony, or place food in each cage containing a queen. I have kept virgin queens in these nurseries fifteen days when they were successfully introduced to queenless colonies. But, I do not recommend the use of queens that have been kept so long. Five days is as old as a virgin queen should be used. I prefer to introduce them very soon after they hatch, or within three days. But the sooner the better.

I have experimented in a small way in having queen cells built by the Doolittle plan, but it is *too fine* work for me, and so long as I am able to get plenty of cells that are built under the swarming impulse I prefer to do so and save so much fussing.

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Spreading Brood—When and How to Do It.

By G. M. Doolittle.

As the time of the year is upon us when active work must commence in the apiary, I thought that a few words on spreading brood would not be amiss, especially as some seem to think that Doolittle recommends and indiscriminate practice in this matter. If in any article that I have ever written I have conveyed the impression that an indiscriminate spreading of the brood would be of value, either to the novice or the expert, I wish to take it all back, for I never wished to convey any such idea.

In some of my articles I have placed the time of commencing to spread the brood about May first. This was done with the expectation that each one would use judgment, that judgment to be based on the locality, the condition of the bees and the advancement of the season. For instance: One season when the first of May arrived there was not a particle of brood in any of my hives to spread. For me to have tried to spread the brood at the time would have shown that I was devoid of common sense. Again, in 1878, when the first day of May arrived, all of my hives were filled with brood and bees. Some colonies having eggs and larvæ in the queen-cells preparatory to swarming. To have waited till the first of May before touching the bees, in such an early season as was that of 1878, would

have shown that I was not up with the times as I should have been.

Once more: All colonies in my apiary cannot be treated alike. Take an ordinary year in this locality, the date being May 1st. In the first hive we open we find a goodly number of bees, say enough to cover seven combs on a frosty morning. We open the hive and find brood in only five combs. The centre comb of the five has brood in it nearly to the bottom and side-bars, as well as at the top. The two on either side of it are two-thirds filled, while the two outer frames have brood in each to the amount of one-third of a frame full. Now, practical experience covering a period of more than twenty years, has proven to me that a gain of two days in bees can be secured by reversing those combs of brood, or, in other words placing the middle combs, or those fullest of brood, on the outside, and those from the outside having the least brood in them, in the centre. By this plan we have not really spread the brood, but we have placed it in such shape that we have made an ample number of bees desire all the brood which they could care for, and the result is, that in about a week or the next time we open the hive, we find those five frames solid with brood—a state of things which always delights any bee-keeper.

We now put a comb of honey, having its sealing broken, in the centre of these five filled combs of brood, which so stimulates the bees, by its removal, that, should a cold night now occur, the bees will be so active that the required temperature is kept right up, and a gain of two or three days more is made. So we keep on with this colony till the hive is filled with bees and brood, and that at the right time to take advantage of the honey harvest when it arrives. Having the bees thus, they will make all the difference between a full crop of honey and half a crop, or in extreme cases or short seasons, no crop at all. Will not this then pay for the fun we have had in thus building up that crop of bees?

The next hive I come to gives off a light huzzing sound, scattered down between two to three spaces between the combs, thus showing that there are but few bees in the hive, for I do not know that I ever opened a very weak colony without hearing this sound. I know that it is weak in bees from this, but am surprised that they have brood in three combs, and the wonder is that the bees have held that brood as well as they have. Now, should I treat this colony as I did the first, any one would say I was a fool. This colony has all of the brood