

colored state, if drawn out from the cell by inserting into it a pin-head, it is stringy, and if it fails to hold to the pin, it will fly back. This brown, stringy, elastic mass, with no resemblance to a larvae or pupa, is, I think, a sure proof of the presence of the dread malady.

In case foul brood comes into our bee-yards, we must quarantine all diseased colonies and spare no pains to prevent the bees from healthy colonies getting either at the honey or comb from the out-broody hives. We must remember the subtle nature of the enemy, the vitality and minuteness of the spores, else we will not practice the caution necessary to prevent the spread of the disease.

Handling the bees at all, and especially if the bees are not gathering, and so will be fiercer to rob, is very likely to spread the disease. It is all-important that the apiarist knows the imminent danger of the disease spreading, in case it gains a foothold in his apiary, and regulate all his work accordingly.

TRANSFERRING FOR FOUL BROOD.

Years ago that astute and justly renowned bee-keeper, Mr. Quinby, announced the "fasting method" to cure "foul brood." He drummed the bees out of their hive into any box, then placed them in a cellar till the were nearly famished of hunger, then he "run them" into a clean hive on untainted combs. With sufficient care, he found this invariably a sure cure.

Mr. D. A. Jones, Dr. A. B. Mason, and many others have confirmed this statement of the great New York bee-keeper. It would seem from this, that no disease or disease-germs could rest upon or dwell within the bees, that all must exist either in the honey, the brood, or in and about the cells. Of late, many bee-keepers have shown that the delay and fasting are not necessary. If the bees are simply "run into" clean, untainted hives, either upon foundation or empty frames, they escape the disease, and are cured. This would show that even if the honey is consumed before there is young brood to feed, all danger is escaped—the colony is cured.

The best time to cure foul brood is during a honey-flow. Then there will be less danger of robbing, and, as we have seen, robbing is one of the most ready ways to spread the disease.

About four weeks before the probable end of the honey harvest, cage the queen inside the hive. As soon as the brood is all developed, place a new hive where the old one stood, filled with foundation, and shake the bees, queen and all, in front of this hive upon some paper that can be burned. This must be done under a bee-tent, or at nightfall when the bees have all ceased to fly. We cannot be too careful to prevent spread of the contagion.

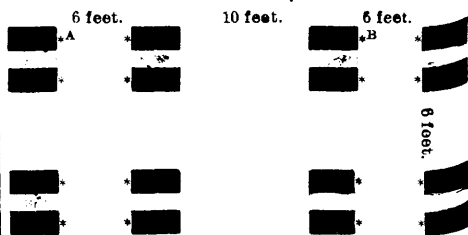
Now burn the papers, extract the honey, and melt up the combs. The honey may be boiled and fed back to the bees; but if not boiled, great care must be taken that the bees do not get any of it. The old hive may be placed for some minutes in boiling water, or else burned. No bees must be permitted to visit it until it is boiled.

What difference is it going to make in the price of honey, whether the drone yields 12,000,000 sperenatozoa or 12,000,000,000? Give us something more practical, Mr. Advance!

A GOOD ARRANGEMENT OF HIVES.

C. A. Hatch gives his method of arranging hives in the apiary, in *Gleanings*. It has some good points and we give the following extract from it:

"I have been using, for two years, a plan that so far, has developed no defects, and I am indebted to that excellent little book of Dr. Miller's, 'A Year Among the Bees,' for part of it; i. e., the arrangement in pairs, which is quite an advantage; but I do not like his plan of placing the entrances all one way; and I like each hive to stand on its own support, independent of any other, and I want that stand smaller than the hive, so that, in working close to the hive, there is not so much danger of hitting the stand with the toe of one's boot, to jar the bees. The objection to facing the hives all one way is, that, while you are working at one hive, you are right in the line of flight of the next row in the rear of the one you are working with. The following diagram shows a better arrangement, as two years experience has proven.



The squares are for hives, with a star to indicate entrances. Hives are to face east and west alternately, in rows; alleys between entrances, 6 feet; alleys between hives, at back, 10 feet, which is the work alley, the one to run the wheelbarrow in, and to travel back and forth in. You will observe that, while you are in this alley, you are 10 to 15 feet away from the face of any hive, and therefore the bees in their outward flight are far above your head, where they will not annoy you nor you them. If you wish to see the difference this makes, you have but to step over into the other alley, and stand a few minutes, to be convinced.

As to mixing of bees, and queens mistaking hives, although your hives may be as much alike as two peas you will see, by referring to the hives marked A and B, that a bee or queen, to find a hive in just the same position as her own, has to go across two alleys, and 20 feet away—a mistake she is not likely to make, the location alone determining her home. In fact, there has been less trouble from bees and queens mistaking hives with this than the old haphazard arrangement. I think a fair trial will convince any one of its merits."