

the number of larvæ which had been fed was 358. It is the honey consumed by these that must now be arrived at.

According to the investigations made by Berlepsch, 47 grammes of honey and pollen would have sufficed to feed these 358 larvæ until they closed themselves up in their cell. Other experiments, made by myself, show that to feed their brood bees use about as much honey as pollen, consequently 25 grammes will be the maximum quantity of honey used up by my bees in the partial feeding of this brood, of which only a few cells were sealed over.

We find, therefore, that the difference in the quantity of honey gathered was one kilo and 202 grammes. That of wax produced 191 grammes. My bees had, therefore, used 6 grammes, 3 of honey in order to produce one gramme of wax.

In previous experiments my bees had started comb-building on eight frames, and as the honey yield was an indifferent one, with the exception of the first day, they built almost worker comb throughout—I say almost, or nearly so, because in a corner of the largest comb there were to be found a few drone-cells; the latter had been built the first day, when the honey yield was greatest, almost two kilos having been brought in.

It will be seen, therefore, that in practice it is possible to get bees to build worker-combs rather economically by feeding them with a cheaper kind of honey, say some of the foreign kind, to be had on the Havre market at from 50 to 60 francs the kilos. But, to obtain this result, three things are essential, viz :

1. A rather poor yield of honey.
2. The removal of all the brood-combs of a hive, to be replaced by empty frames, the latter to be placed between the full ones. The brood-combs removed, will be given to a weaker colony.
3. Never to induce comb-building unless when the temperature is high.

Plowman.

A Plea for Better Bee-Keeping.

C. H. DIBBERN.

While I am free to admit that much has been accomplished in the past twenty years to place this industry on a higher plane, yet we cannot shut our eyes to the fact that very much still remains to be done.

Perhaps the best way to get an idea of the present condition of bee-keeping, is to visit some of our large towns, and inspect the honey offered for sale by dealers. I made such a visit recently, and this is about how I found things :

Calling at a large grocery house I inquired if they had any comb honey. I was assured that they had some that was very nice, and followed the clerk in the back room, was shown some boxes apparently made from old fence boards, without planing. The honey was of good quality, but in sections about 7 inches square, and made of material varying from $\frac{1}{4}$ to $\frac{1}{2}$ of an

inch thick. They had not been scraped of propolis, and some of them had evidently been used a number of years. It was easy to see that no separators had been used to compel the bees to build straight combs, as it was very much bulged, and in handling and shipping some of the combs had got jammed together, or the cappings were scraped off in trying to get the sections out, and the cases were leaking all over the floor. When I objected to the honey on the above grounds, I was told that it could not be helped, that the honey was all right and clean, and that the people did not eat the boxes, anyway.

The next place I visited, I found some California honey in Harbison sections. This was nice and white, but it had evidently been roughly handled. A dozen crates were piled upside down in a tub, and were leaking a good deal, as the 2 or 3 inches of honey (and flies) in the bottom of the tub testified. I objected to this as not being what I wanted, and they then told me they were disgusted with the honey-trade and thought of giving it up.

Next I tried the much-abused commission man, and, seeing a large pile of nice, new crates with some very fine honey showing through the glass, I thought, "now I had found honey that I would find it hard to find fault with." Getting into conversation with the man in charge, he kindly showed me around, and on my request looked into several shipments. The first lot was of one-pound sections, in nice, new cases. Opening a case, the honey was nice and straight in white-wood sections, cleaned of every particle of propolis, and the sections resting on little strips of wood, placed inside of little paper pans in the bottom of the case, to catch any dripping honey, but there did not seem to be any.

"These ten cases," said the man, "are all we have left of a hundred cases that came in yesterday morning, and it has all been sold at 15 cents per pound." I remarked to him that it seemed to be a fancy price, that the papers only quoted white clover honey at 10 and 11 cents. "That is very true," said he, "but this is what we call a fancy article, and the name of the producer is on every case, and he is a man that we can depend on, every time. Here is a lot that has been here for a month from a neighbor of his that appears to be just as good, but please open a case and see." I did so, and found the honey nice, only on the outside next the glass. Back of this were a lot of dirty looking sections, filled with all kinds of honey from white clover to "honey-dew." The combs were bulged, and had the cappings more or less damaged by slapping together in shipping.

"These 17 cases are what remain of 20 we received a month ago. We have tried hard to sell it, too, but if we sell 5 cases we generally get back 4 of them. We are now offering it at 8 cents, and I am sure when our account sales of this lot is rendered, we will be roundly denounced as scoundrels."

Who is the scoundrel?

Just now we hear much about the depression and low prices of honey. Many are discouraged, and talk of trying something else. Well, perhaps the sooner the careless or the dishonest leave the pursuit the better. Talk about establishing a uniform price for honey! how can it be done when there is so much difference in quality, style of packing and "honesty" of grading. I myself could have sold, during the past season, thousands of pounds of choice honey for other bee-keepers, could I have depended on getting such honey as would fill my orders.

Now, bee-keepers, as another season is just commencing, let us all form new resolutions. Let us determine to have only the best. We want the most convenient hives, both for us and the bees. We want nice, handy cases on the hives. We want to throw away all old, soiled sections—it will not pay to use them when we can buy new ones so cheap. We must use separators of some kind to secure nice straight combs; in fact we must determine to have everything the very best, and then there will be no trouble to sell the honey.

Milan, Ills.

Language of Bees—Old Testimony.

REV. JOHN THORLEY.

As to the time of second swarms, we generally fix it to a day or two, and know when to expect them, by means of those distinct, peculiar, and musical notes, which are always heard two or three days before they rise.

Bees certainly have a language among themselves, which they certainly understand, though we do not, or at best, very imperfectly. Eight or nine days after the prime swarm is departed, one of the young princesses, addressing herself in a very humble and submissive manner to the queen-mother, petitions for leave to withdraw, and erect a new empire, with a select body of the populace.

The regent for a time seems silent, and for a day or night there is no answer, nor any grant given; however, the young princess, bent on crown and kingdom, continues her suit, and at last succeeds. The second night you may hear the queen, with a very audible voice (being an eighth) giving her royal grant, and proclaiming it (as by sound of a trumpet) through the whole kingdom. Her voice is a grant, her silence a denial. And the day following, the weather being tolerable, you may expect the swarm. It is delightful to attend to those peculiar sounds or notes, being an eighth chord, which is truly harmonious. Dr. Butler has taken pains to show us the compass the song contains in the gamut, or scale of music; the queen composing her part, or bass, within the four lower cleffs; and the princess hers, a treble, in the four upper cleffs. The swarm ready to come fourth, the notes are louder, quicker, and more constant. When the greater part of the swarm is out, the music is at an end, and we hear