## THE CANADIAN BEE JOURNAL.

dry fæces is to be found.

3rd. Bees in Summer discharge a liquid fæces, and pretty thin at that.

4th. "Dry fæces can never be found in bees," says Prof. Cook.

5th. We know that S. A. Shuch speaks truly, on page  $_{362} A.B.J.$  1885, when he says that he has produced diarrhœtic symptoms in bees in Summer by a few hours confinement, with a temperature of  $60^{\circ}$  F. If the "dry fæces" theory is true, why need they show signs of diarrhœa? If the pollen theory is correct it is because in Summer, when activity is causing a waste of tissue, they are constantly supplying that waste by consumption of nitrogen, through pollen, the residue of which must be voided at very short intervals, or an accumulation of fæces resulted at once.

6th. I have seen bees void the same "long strings" that Mr. Corneil speaks of, and like him, I have seen them void both while on their wings, in air, and while crawling on a board, but I never caught them voiding these "strings" on their combs, or in their hives, not even on the wing, or while crawling, except that their bodies were distended, and disease had already begun.

7th. A rule of bee diarrhœa is, that the thicker and darker the excreta, the worse the disease.

The above are as our observations have forced us to believe, and we must follow them till we see we are in error.

## Dowagiac, Mich.

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JAMES HEDDON.

Perhaps we had better call it "beebread," after pollen is once stored in the hive, we could imagine bee-bread becoming saturated with honey, and if the honey soured, the bee-bread no doubt would become sour also. In that case, we suppose it would have a tendency to ooze out of the cells, or loosen up and mix more freely with the honey. We have never yet been able to keep bees quiet in such a high temperature, probably it is owing to the large number we usually have in our repositories. It seems to us that ninety degrees or even seventy or eighty, would be very injurious, especially if there was pollen in the hive so they could start breeding; but the fact of one bee keeper being able to winter successfully in this temperature is a proof that if others would manage their bees just right they might do just

as well. It seems to us that it would be almost impossible for them to have diarrhœa as the high temperature would enable the bees to pass off so much moisture from their bodies that the residue would be in a more solid state and their abdomens would not be so likely to become distended.

JULY

For the Canadian Bee Journal. MY PLAN OF WINTERING.

S I have been very successful in wintering my bees I will tell your readers the way I put them up in the Fall, which is based on instructions which I have gleaned from various sources, but mainly from your price list. Last Fall there was very little honey in this locality, so about September I took out the frames that were not needed, and started to feed sugar syrup so as to keep up breeding and at the same time to be sure that they had good stores. I had previously extracted nearly all the honey, so that if any of it was impure, it would not be likely to do any harm. I had read of quite a lot of it being gathered, (I have reference to honey dew so called). I noticed that every hive had its share of pollen and thought that if the other conditions were right that it would do no harm by being there, so I put the frames about 23 inches apart which the bees built out at the top, forming quite a hollow space towards the centre of the frames, which were about six in number, breeding being kept up until late in the Fall. When I thought it was getting cold enough I stopped feeding so that they would be able to cap all the cells and as we had quite a spell of fine weather the bees had lots of time to do so. While it was yet warm weather 1thought it best to prepare for Winter, so I took off the quilt which had been on all Summer and put two pieces of lath across the frames, so that the bees could pass over the frames instead of through them; for quilts I cut some pieces of matting such as comes around tea chests, (which by the way makes first-class quilts for Summer.) I then put on the half story and either fill it with chaff or sawdust, I used both as I did not have enough sawdust, which I prefer to any other absorbent. I then put on the cover of the hive. Each colony was then in condition for Winter or I should say for Fall, so that I did not have to disturb them in cold weather. Later on in the Fall I prepared a clamp by building a plat form the required length on the east side of a six foot tight board fence, leaving two or three inches between each hive and eight inches

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