

whole ten days, carrying out the more restless ones and the lighter ones first. Had not quite a number of them been short of stores, weather even so favorable would scarcely have tempted me to carry out so many, for I had an irrepressible impression during the whole ten days that such weather was "just too sweet" to last. However, it afforded an excellent opportunity to supply those needing stores and get them nicely started brooding. I found them on the whole in very good condition, that is those carried out—there are some eighteen or twenty of the heaviest in the cellar yet perfectly quiet, and there they will remain I think for some time as the weather is now cool, cloudy and generally unfavorable. I found a few colonies, some five or six, dead from starvation and a few dead of diarrhoea, while all the others were bright, clean and healthy. That we have considerable yet to learn about the causes (occult enough) of bee diarrhoea, and the conditions governing winter consumption of stores, is evident enough. Here are two colonies side by side in winter quarters fixed up in exactly the same manner, with an equal amount of stores in the Fall, same race of bees, and queens of same age. In the Spring upon removing them we find one in first-rate condition, clean, healthy and bright, with over half of the stores in the hive. The other has consumed the whole of its stores including even the most of the pollen and has starved to death, without the slightest sign of diarrhoea or other disease notwithstanding the very large consumption of honey and pollen. Here are two other hives side by side apparently similar in all respects in the Fall, and fixed up the same. In the Spring one is dead of diarrhoea with nearly the whole of the stores in the hive, while the other is in first-rate condition, clean, dry, bright and healthy. These things I have witnessed within a fortnight; and I have been thinking and studying and turning the matter over and over in my mind seeking a solution. What the results of my cogitations and investigations may be I will report later should anything come in sight worth reporting. I tell you friends we have "more than considerable" to learn yet about this wintering problem. True we have got so that we can winter with little loss from diarrhoea, but when shall we completely overcome even the minimum? That is the question. However, considering that the honey failed so early last season (the last of July) and that the bees had to be fed so much and so often, they have come through remarkably well. And I have learned something from the Fall and Winter experience. Indeed I think I have learned a good deal which will surely stand me in good

hand in the future in wintering. Nor, fortunately, has the acquisition cost me much. Success naturally inflates us. Every Fall when we put our bees away we think we know it all—that is, about wintering, for have we not been in the habit of bringing our bees through all right? But a Spring comes and we wake up out of our "hibernating" sleep with considerable of the conceit gone, for if we lose but one colony and cannot for the life of us divine the causes, "even in heaven above or earth beneath," our knowledge is discounted as well as our conceit. But let us observe carefully and accurately, study and classify the facts, and reason logically from them and we may hope to ultimately arrive at the good of complete apiarian knowledge and success.

ALLEN PRINGLE.

Selby, Ont., April 26th, '86.

We have no hesitation in saying that "Gleanings in Bee Culture" deserves the warmest support of all our friends. In reference to bees dying we are fully convinced that there is more danger from having the temperature too low than too high, and if bees are not disturbed for six or eight weeks before they go into winter quarters and are all nicely prepared before winter sets in they are sure to come through in far better condition than if disturbed. If you are indifferent to the way your bees come out in the Spring just disturb them some before putting them away for winter. By the way, it was at friend Pringle's suggestion that the date is inserted on every folio, and we desire now to publicly thank him for it.

FOR THE CANADIAN BEE JOURNAL.

THE POLLEN THEORY IS NOT SCIENTIFIC.

IN his paper on the Pollen Theory, read at the late North American Convention at Detroit, Prof. Cook asks: "Is it not scientific then to urge that pure carbo-hydrates are the best food on which to winter our bees?"

In answer to the question I submit the following statements of physiologists, whose high standing Prof. Cook will hardly question:

Speaking of nitrogenous substances, Dr. J. C. Dalton, jr., says: "No food can long be nutritious unless a certain proportion of these substances be present in it. Since they are so abundant as ingredients of the body, their loss is felt more speedily and promptly, than that of any other substance except water." (Dalton's Treatise on Human Physiology, 3rd ed., p. 109.)

Prof. Huxley says: "Whether an animal be herbivorous or carnivorous, it begins to starve from the moment its vital food stuffs consist of pure amyloids or fats, or any mixture of them. It suffers from what, may be called nitrogen starvation, and sooner or later will die. In this