with great success generally, unless perchance something prevents him from giving them the necessary attention. In the fall we believe he packs all his bees out-doors and if we remember rightly it is with timothy chaff. The immense yield of honey he has taken in years past is a pretty sure guarantee that his bees receive the proper attention. That he is an unusually close observer there is no question. We believe he takes more extracted than comb honey and uses the deep frame. Many of our Canadian friends who met him at the Convention at Toronto, two years ago, will remember him, we are sure, with pleasure. The points that he discusses are handled in a clear manner that leaves no doubt in the minds of his readers that he is a master of his subject. We feel glad that he is again able to give us some of his valuable experience and trust to hear from him more frequently in future.

For the CANADIAN BEE JOURNAL.

DRY FECES—DIARRHŒA.

ON page 229 of the C. B. J., Mr. Heddon says, "If Mr. Corneil will give a colony of bees stores of honey thoroughly loaded with pollen, I think that by no method of preparation can he keep them from having diarrhœa." It so happens that last Fall I prepared fifty-seven stocks in just that way, and the result was the reverse of what Mr. Heddon would have predicted. Every stock not only came out alive, but in such condition as to leave nothing to be desired. In fact I do not expect to ever succeed better. The bees were confined 173 days, being placed in the cellar on the 14th of November and taken out on the 6th of May. The hives had not been disturbed during the fall and were well provided with natural stores only. In about one half the hives the frames were 7x14 inside measure, about twenty had frames 10x16, and there were about half a dozen box hives. The top stories were left on the shallow hives when the lower story seemed to be light. In all the frame hives sticks were laid across the frames and holes were bored in the tops of the box hives. All wintered equally well. The cellar was simply a hole in the ground, beneath the living room of a log dwelling, built on a bank of limestone gravel. No observations as to temperature or humidity were made, but potatoes did not freeze in the cellar except a little near an opening under the foundation log of the house through which a ventilating pipe was introduced, but withdrawn when the cold became severe, and the hole closed with pea straw. Vegetables for family use being kept in the cellar, lights were frequently taken down, but otherwise there was no disturbance. I think the conditions favorable to the bees were, no breaking up of the brood-nest late in the fall, hives fairly populous, plenty of stores of honey and pollen, good ventilation of the hives, and a warm covering over the cluster, passing off the exhalations, and keeping the bees comfortable. It is probable too that the roaring fires which were necessary in such a dwelling last winter, not only kept the cellar warm, but caused upward currents of air from the cellar through cracks in the floor, keeping up a constant change of air about the hives. The combs contained plenty of pollen, and a sample of the honey—which I have preserved—contains, at least, the usual quantity of pollen granules. The bees ate either the floating pollen in the honey, or the pollen in the combs, or both, and they did not "spit it out again," nor was it "digested" husks and all, so as not to appear in the feces, but it passed through the stomachs, into the intestines, and was voided in long stringy masses by the bees, when they were set out in spring. The debris on the bottom boards was not saved for me, so I do not know whether they voided dry feces in the cellar or not.

But, Mr. Heddon says, "This (voiding of stringy feces consisting mainly of pollen) never takes place except in the last stages of disease, bee-diarrhœa, after the bees have held their feces till they are sick." On another occasion he says, "a rule of bee-diarrhœa is the thicker and darker the excreta the worse the disease." This is begging the question. Such a state of matters does not indicate diarrhœa at all. The *liquid* nature of the evacuation is always a characteristic of diarrhœa in any animal. Mr. S. A. Shuck is quite correct when he says, "Many colonies, wintering on natural food, and in as fine condition as the very best, show a larger per cent. of pollen in their excreta than those suffering most severely from diarrhœa." Mr. Heddon, himself, says Prof. Cook wrote him regarding some bees which had *died* of diarrhœa that "he found their bodies nearly bursting with the dark turgid excreta, which when microscopically examined, proved to be pollen grains *held in a watery mixture*." And again the Professor says "The bees *which die* of dysentery looks *dropsical*, and seem fairly *oozing with liquid excreta*." In