

Wintering Bees.

(For the Canadian Bee Journal)

By permission of the editor of the C. B. J. I will try and help Dr. C. C. Miller to winter his bees in future with more success than he has done in the past.

The doctor is a not a bad sort of a fellow. I think his intentions are good even if he does feed us on straw. Well doctor if you wish I will give you my thoughts on wintering bees.

Until the winter of 1896-7 I wintered out of doors, but since that date I have wintered in a cellar made for that purpose and the difference in favor of the cellar is very large. My bees come out in spring in much the same condition they go in in the fall. Clean, dry, healthy and vigorous, and then they boom right along without packing; save the tops, on which I keep a good chaff cushion.

But doctor this result came by a good deal of thought and timely and proper management.

The cellar should be as nearly as tight as possible so that you can control the ventilation and temperature: cold windy weather enlarges the necessity for this. There must be holes in the walls under control for the purpose of ventilation.

The cellar should mostly be under ground bare brick or stone walls should be well banked with earth.

The floor, or bottom rather, should be of natural earth. I prefer to have a shop or some building over the cellar in which a fire should be kept most of the time in winter. Now if you have about 100 hives put in the cellar: a four inch pipe should extend from within eight inches of the cellar bottom and connected with the stove pipe: this ventilating pipe must have a valve in it for regulating the ventilation in windy weather.

Well now brother Miller I believe so far you and I are together, we both firmly believe in pure air for wintering bees and I think you agree that the hives should not be less than eighteen inches from the cellar bottom, but further along in detail we may not agree quite so well, but I hope to convince you that my practice is based on scientific principles and consequently the correct method.

It is of course always agreed that bees for the best results like other mortals must have plenty of healthy stores, and be placed in the cellar just as soon as there is no probability of their having another flight. And now doctor we come to our points of difference. You place a vestibule or something of that sort of two or three inches between floor (the term floor instead of bottom board is used in this article to see how

the change would please; time, place and material are saved and nothing lost) and hive. This forms a box two or three inches deep full size of the hive and pretty nearly closed in. Now if I am right this thing becomes a container, a reservoir which keeps in position and prevents the free and easy escape of foul air. This foul air brings upon the bees a sort of suffocating restless sensation and they in order to change the air, fan with their wings. Well you know this is work; this work wears out the bees and causes them to eat more than they should—a waste of stores—waste of vitality—clogging of their bowels—moving about, induces feeding the queen—brood rearing commences and we have more activity, more eating, more brood, distention of bowels, dysentery, death.

Now brother Miller during all this ruinous process have you not heard a gentle moaning or roaring in your cellar? Brother G. M. Doolittle once called it "a contented hum" but allow me to say: there is no such thing as a contented hum in the cellar, the very reverse is the matter of fact. It is a hum of discontent. Something is wrong and you will do well to seek and remove the cause, which is nearly every time foul air. Now don't go to extremes and get up currents in your cellar or the result will be just as bad.

I must qualify one statement slightly by admitting that bees do occasionally arouse from their deep quietude and make quite a stir by clearing house, adjusting stores etc. But of this, if they are wintering perfectly they make short work and very soon drop again into stillness and deep repose.

When in position in the cellar the back end of the hive must be about three inches higher than the front end (a little higher will do no harm.) Entrance wide open, back end of hive wedged up from the floor three quarters of an inch, frame about three-quarters of an inch above floor, a cloth covered or nearly so with propolis placed flat upon the frames; upon this cloth place a warm cushion of some kind.

The temperature should be 38° to 42° and further your cellar cannot be too damp for the bees (it may be for your timber) when prepared as above and kept at above temperature. Yes doctor I know I am here at issue with all the authors coming under my notice they say if your cellar is damp raise the temperature but I have during six winters thoroughly tested the matter and find that bees prepared as above have nothing to do but occasionally take a very small meal and keep perfectly quiet. They are warm enough for comfort, the great disturber of bee-happiness, foul air, is removed.