

Wintering Bees.

(For the Canadian Bee Journal.)

DEAR EDITOR.

Friend Pettit, on page 61, tries to help me out in the matter of wintering, and I think I, 'll let his kindness in that direction offset a grudge I have against him for not being at the Chicago convention. I fully expected to see him there, and his absence was very unkind.

I assure you, friend Pettit, that I have read with much interest your communication, and it may be of some interest to know wherein we agree and wherein we disagree.

Like yourself, I find I can do better wintering in cellar than out, although I confess to a continued bankering for success outdoors. Winter before last I tried a few out with no protection — twelve I think. Just twelve of them died before spring.

I don't pack as much as you, for I have no packing on top. But I believe a top packing is a good thing. I have flat board covers, and it isn't convenient to put packing on top of such covers, but I'm sure it would be a good thing. Then moisture would not condense overhead and drops of water fall upon the brood nest. If I used packing anywhere it would be on top.

Following down, I find we agree till you say the ventilation must be regulated in windy weather. I seldom meddle with it. Possibly I might better do so on windy days. Still I try to keep up the temperature, which is much the same thing, for I suspect the only harm of too much ventilation is lowering the temperature.

I have no quarrel with you as to setting hives eighteen inches from cellar bottom, but as a matter of fact, for saving room, mine are a foot lower. Possibly it isn't so well, and yet I don't see the bad results that I formerly expected. But I'm sure it's no better, except the saving of room.

I'm agreed with you as to the undesirability of having anything like a reservoir of bad air under the hive. But I suspect you misunderstand what I do have. Formerly I had tight floors, [Yes, I like word "floor" better than "bottom board,"] and in winter the entrance was left entirely open. That made an opening of a half inch the full width of the hive. I thought that was not enough, especially as bees often clogged the entrance, and now have reversible bottoms, in winter closed on three sides and open in front the full width of the hive. As the whole front is open, that makes an opening two inches deep, and I have always supposed it was about the same as having no floor at all under the hive. True, this open-

ing is closed with wirecloth to keep mice out, but as the wirecloth has three meshes to the inch, I don't suppose it interferes materially with the free passage of air.

I don't think you need labor with me to, make me believe in pure air, and if you convince me that my present plan keeps a lot of bad air stagnant in the hive, then I, 'll make a change.

As I said before, I believe your plan of having warm packing on top is good, but I, 'm not sure that it would be enough better to pay for the trouble in my case. The flat covers nailed down before they leave the out apiary—sometimes they are not nailed down, but are glued down—and the covers are not opened again till after they are taken again to the out apiary in the spring.

You say the temperature should be 38 to 42°, but don't say anything about how you would hold it at that if it should go lower. I use a hard coal fire, but I find bees will keep quieter at 45 than at 38. There is, however, a difference in thermometers, and in the part of the cellar where a thermometer is placed, so it isn't well to quarrel about the exact degree.

As to dampness, I let that take care of itself, and as a rule my cellars are tolerably dry. Although you are somewhat ultra as to your views on dampness, I suppose you would hardly take steps to make a cellar damp if it was dry.

Now if you think there should be a change in any part of my practice, I shall take it kindly to have it pointed out. Yet it isn't a bad plan to let well enough alone, and in the past I have had small loss for years in winter. It is possible that you may have had a different impression, and it is right that I should say that during the past two winters my loss has been much heavier than usual. But during those two winters I made a variation from my practice that may account for the variation in loss. Much has been said as to the badness of artificial heat, and winter before last I thought I would try natural heat and didn't make any fires in the cellar. The temperature was lower than usual, sometimes touching near the freezing point, and I think the harm came not only from the bees being too cold, but the air in the cellar was not so well changed as if it had been warmer. Last winter I tried the plan of putting in occasional fires. Bees outdoors have occasional warm days, and why shouldn't it be the same way in the cellar? But it didn't seem to work in practice as well as in theory.

I doubt if I can do better than to go back to the old plan and keep fire in the cellar twenty-four hours of each day, seven days