

the bee hives for the purpose of ascertaining the condition of the cushions and hives as to dryness. Now the covers to the elm hives were all heavy and not liable to be blown off with the wind, and were left without weights, the other hive covers all being light were weighted down, and thinking it necessary to remove them, I merely lifted the heavy covers to the elm hives and I found them as in other winters, the hive frosty, cushions damp and wet. Knowing full well that to leave them in this condition would mean destruction to the bees, I proceeded at once to remedy matters by replacing the damp cushions with dry ones, for I had not the slightest idea but that all my bees were in the same condition. Imagines my surprise when on lifting the covers of the hives made of pine, to find them all perfectly dry and comfortable, while those made of elm without one exception were wet and frosty.

Now I think this proves without a doubt that a hive made from soft wood, such as pine, cedar, etc., is better adopted for outdoor wintering than any other, in this latitude at any rate, where we have a continuation of cold weather for four, eight and sometimes sixteen weeks, I verily believe that if sound cedar could be obtained for the manufacture of hives for outdoor wintering the mortality would decrease. At all events my intention is to experiment a little in this direction. A material that will absorb the moisture and allow evaporation, and at the same time retain the heat generated by the bees is what is needed. Any one will admit that hardwood, even hard flinty pine, is of a colder nature than soft wood, such as pine, cedar, basswood, etc. Basswood I think, would answer equally as well as any other as far as softness is concerned, but is too susceptible to dampness and will swell out of shape and therefore is not commendable.

I do not know that the above discovery is anything new to the bee fraternity, possibly it is as old as apiculture itself, but it is new to me at any rate and perhaps may be to some others and I thought it would be no injury to any to give it for publication for what it is worth. Bethesda, Ont.

[There is a good deal in what you say in the above. Another objection to elm is, that one never knows when it is through shrinking, and it is rather difficult to keep it in place, in that respect it has as great an objection as basswood. Cedar has been used in the construction of hives, at least double walled hives. It is a question whether a better all around material can be found for hives than well-seasoned pine.—Ed.]

## HOW THE BEES WINTERED.

### Cloth vs. Wooden Covers.

(Written for C. B. J. by F. A. Gemmell.)

The past 10 days of beautiful weather makes the Bee-keeper feel as if spring had actually come to stay. Be this as it may, it has been of great benefit to the bees, as they have been enjoying almost daily flights, thus putting them in shape for any backward weather which may come later on.

My own colonies, numbering 96 in all, were wintered outside, and with the exception of one colony which was *non est* on November 1st, the other 95 have come through in a fairly satisfactory condition.

Of course this does not mean that they are all wintered, as the first of May will be a better time to judge of that, still it is a satisfaction to know, that more than one is not now dead. Judging from present appearances of the surviving ones, however, I am quite sanguine all will give a surplus, the amount of such will of course depend on the character and duration of the honey flow.

I might here mention that with proper care and plenty of stores, my spring losses in the past have been so slight, that I have no fears on that scale, therefore give myself little or no concern as to the result.

That the winter has been a favorable one in my locality must be conceded, although all these who had not their colonies properly prepared early in November, would find the early cold weather in that month, and December a great damage to them. The month of January, however, was mild and some of the now tardy Bee-keepers even finished their winter preparations, about the commencement of the new year. On the 8th and 9th of February, the bees had a grand flight, which at a such a time means a great assistance in enduring the balance of the cold weather, as well as stimulating the stronger colonies to make preparations for early brood-rearing; if properly protected and not cramped for stores.

### CLOTH VS. WOODEN COVERS.

My practice for years past, when preparing for wintering outside, was to pack early and I still think this plan good, it is surely the safest. Another thing I generally did, was to place a Hill's device or something similar, under a clean new quilt, before putting the packing or cushion on top, and this I also think for the majority is still the safest plan to follow. Yet for those who