

the amount of oxygen will enter the same entrance at one time that it will at another.

Mr. McEvoy—One of the main things in wintering is to keep the constitution of the hives itself right, that is to have the heart of the hive pretty well packed with sealed stores at the beginning of winter, the bees crowd on this division board, and the Queen Bee has not a chance to lay, and the bees are at rest, and the more rest they get the better they will winter, you can get ventilation more or less according to these conditions. If you have a hive with the centre pretty well consumed and the honey is to the walls, if you give a large entrance to that colony, and if in the winter there is a good many sunny days, and if the Queen is young and she sets to laying, the cluster is broken and the colony will be worthless the next summer.

Mr. Hall—What do you mean by the constitution? Do you mean, a large lot of bees, or do you mean a hive full of bees, or do you mean a hive where the bees cover three combs?

Mr. Pringle—How far apart?

Mr. McEvoy—Just space enough so that the bees can go up and down, a reasonable bee space.

Mr. Hall—I only see my bees from home once in the winter, and I find that I have sufficient stores, it makes no difference whether there is three combs or eight. If the entrance is not clogged they come through all right. I find that if there is insufficient bees they are prone to come out weak in the spring, and I find if the hive is covered with bees from top to bottom, and corner to corner they are not going to live.

Mr. McEvoy—I agree with what Mr. Hall says with regard to a weak colony or a strong one. It may be filled from corner to corner and empty in the centre, and with a young queen they might start brood rearing. The way to get around that is to remove these combs and put in about six division boards, and you shut the queen off she has no chance to lay, and the colony can be put in shape so that it will winter. I winter out doors and I will guarantee that if the stores are right, and they are all sealed, unless you lose the queen and if you look out for snow storms, you will bring the colony through every time.

Mr. Best—I have had them drifted up with snow considerably, and thought that surely they were dead, and I looked for the bees to be dead, but they came out better than some of those that were not snowed up. I suppose they received air through the snow. I took the snow away as soon as I could conveniently. I admire Mr. Gemmell's idea of bee-keeping. He is trying new things; it is not very profitable for the

bee-keeper, but it may sometimes be for others, if he happens on a good thing, and I think we ought to encourage him.

A Member—Will Mr. Hall give us his method of wintering bees?

Mr. Hall—Mr. Gemmell tried an experiment last winter, but I say let old Sol do as he likes, we will keep the heat we have got, and do as Mr. Gemmell does with the packing. We have a space between the packing on the top of the hive proper. The only difference between Mr. Gemmell's packing and mine, he has got a beautiful case that the water cannot get in, neither can moisture get up, and in my case you can put your fist through the sides of some of them, but the tops are perfectly water tight, there is sufficient air spaces between the leaves to keep in the heat and to keep out the cold. I give mine a larger entrance and give them no top entrance whatever, and except they are buried under the snow and left there, they come out good.

Mr. Evans—I would like to ask what is the best kind of packing?

Mr. McEvoy—Leaves. I have been trying sawdust, but it is no good.

Mr. Gemmell—If you use sawdust with Mr. Hall's case you won't succeed, but if you use leaves there is a certain amount of air that will circulate through the leaves, and they will dry out, if they happen to get wet.

Mr. Armstrong—Our mode of wintering is much the same with the exception that you cannot get your fist through the side of my outside cases. My cases are made out of rough lumber, but they are bevelled on the side so that water won't run in. I use sawdust, and a little upward ventilation.

Mr. Hall—In the case of sawdust or chaff you require a case to keep out the water.

Mr. Armstrong—What depth of packing have you on top and on the sides?

Mr. Hall—The sides 3½ inches deep, 6 inches on top. I have a cover that I lay on top, that hold the leaves down solid. The main thing I have to contend with is the water from the melted snow, or rain, that is only from the top, I do not care about the sides.

Mr. Armstrong—You are not careful at all about having any spaces between the leaves and packing on the top of the hive.

Mr. McEvoy—Would it be desirable to have no packing whatever, or less packing on the front of the hive or south side.

Mr. Gemmell—I think I would have a little packing. I do not think it is essential to have it on the south side.

Mr. McEvoy—I have experimented on that line. The south side wants to be a little less, if the distance is too thick to