

Mr. McKnight why it was he didn't succeed with chaff. I have wintered bees what I call successfully, with only from one to ten per cent. loss in the winter, and I have used wheat chaff, oat chaff and sawdust, and I can't see a particle of difference. I generally pack from four to six or eight inches of packing on top, pressed down with my hands; I leave a small space under the cover between it and the packing. I never let the packing, if I can avoid it, come up tight against the outer cover, otherwise, the moisture will strike there and the chaff will get damp and rot. If you leave a small space there there is never any trouble with the chaff getting damp or rotten. My entrance is five inches by three-eighths of an inch.

I was also going to ask Mr. Hall if it was really necessary to have the entrance the full width?

Mr. Hall: If I had my choice in making packing cases again I think I would have it the whole width of the hive. My entrance is one-half an inch by five inches.

Mr. Post: My experience is identical with Mr. McKnight's with using chaff. Forest leaves are the best.

Mr. Heise: Was the chaff in the cushion?

Mr. Post: No, thrown in loosely.

Mr. McKnight: It is worse in the cushion.

Mr. Post: The chaff was placed in the top story with a cloth underneath but it got wet and mouldy; there was over 69 per cent. of the bees that were blue and the combs were blue moulded.

Mr. McEvoy: One of the greatest drawbacks is the use of a cushion filled with chaff; the bottom of the hives get choked with snow; the steam rises and goes up into that cushion of chaff which will hold it, and then zero weather sets in and the

chaff in the cushion gets frozen. With green sawdust packing such as Mr. McKnight spoke of, if you use much of that, it is like a little refrigerator. If the sawdust is perfectly dry and not too thick, all right.

Mr. Armstrong said he threw the packing on loosely. He lives away in South Ontario and Mr. McKnight lives north. It makes a difference where you live; you may be both right.

Mr. Armstrong: We never have it go much lower than ten degrees below zero and it will not remain for more than two days.

Mr. Post: We get it from 10 to 14 below zero for ten days.

Mr. Fixter: Has any one ever tested outside as against inside wintering in reference to the amount of honey consumed? Also, has anyone kept track of the time in packing as against carrying them into the cellar? I might as well tell you my experience. I think there is more honey wasted than will pay for building a proper cellar. And in the time consumed and the trouble in packing a hive you will carry 6 into the cellar.

Mr. McKnight: Seven or eight pounds of honey will keep a hive in food for five weeks.

#### IMPROVEMENT OF STOCK.

By G. M. Doolittle in American Bee Journal.

All apiarists who have an eye to the betterment of their condition along the line of a better honey yield know that some colonies in the army gives better results than others. Thus we often hear beekeepers say, "If all the colonies had been as good as was No. 12" (number 45, or some other, as the case may be) "I should have had seven hundred, if not thousand, more pounds of honey than I secured this year." Well the question is, do we not have all the colonies in the apiary as good as number 12? We must