

any other material that has been mentioned yet, but it is a little difficult to get. I think I was the first to use that. It is not to be had easily except in the neighborhood of towns and then it is only to be had from grocers who bring in these Malaga grapes during the season and quite a quantity can be collected in that way. As to Mr. Sibbald's tilting up his hives in the rear and blocking them there to the extent of three-eighths of an inch, I am not sure of the validity of his reason for doing that. If I understand him aright, it is for the admission of fresh air, which, he says, passes up through the cluster and gets heavy and falls to the bottom and passes out at the front entrance. I don't think that is just the fact. I believe the air that passes up through an empty space becomes rarefied and lighter and does not become heavier and descend to the bottom. And here comes in one draw back in the propolised quilt, it will not permit of the rarefied air that has been de-oxygenized or the oxygen absorbed out of it, to filter through the quilt. It is almost as impervious to either air or water as the board is. I think these forest leaves, so packed in is a capital thing for that; I believe they have a tendency to keep the interior of the hive dry and in good condition. Years ago I experimented on all kinds of packing and latterly I became somewhat indifferent as to some of the methods that were advertised and largely advocated. A great many of the fads have passed out of practice altogether in bee-keeping and I think a more common sense plan has been adopted largely from experience.

Mr. Evans: I would like to know if any of the bee-keepers present have had any experience in keeping bees in long clamps—eight or ten in a clamp, outside, packed in sawdust. I have kept mine for a number of

years and I have found some difficulty with some of them coming out very strong and some very weak. I believe there is that difficulty in keeping them in that way. I would like to know if any of the other bee-keepers have had any experience in that line.

Mr. McKnight: I have had sufficient experience never to try it again. With regard to a house especially constructed for bees, sawdust was largely advocated for packing when above ground, but it does not do below ground. I would advise any man thinking of that kind of a thing to never use sawdust. The reason is, no matter how dry it is it will dry-rot the posts that form the frame of the building. That kind of house was a great fad one time. I put up a house of that character and I believe it was one of the best of its kind but to-day it is pretty nearly ready to come to the ground.

Mr. Hutchinson: My experience of clamps was not such clamps as Mr. Evans had reference to. He had reference to the packing of bees above the ground where they would have an opportunity to fly. My experience has been in wintering bees in clamps under the ground, burying them like potatoes—pitting. I have had experience in putting them in long rows and clamps in that way. The only object I can see is if a man is in a locality where he must protect them and he has no cellar, that is a makeshift, that can be done, but that is all the advantage.

Mr. Heise: Mr. Sibbald, I think you spoke about using four inches top packing. Is that compressed or thrown in loosely? My reason for asking the question is that I think Mr. Newton referred to the top packing as ten inches and Mr. Sibbald as four inches.

Mr. Sibbald: Mine was sawdust. I never used leaves at all, although

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