

15th November I want to have the hive dry, not covered over with snow, or wet; and I like to have the bees have a fly or two a day or so before they are set in. We have a way of carrying them to the cellar door from the bee yard and we get right in under the house and set them on the stands: the stands are about 15 inches from the floor, poles 2x4 scantling and we set them on those: the bottoms are attached. I leave the entrance the full width open; that entrance is usually  $\frac{3}{8}$  by 7 inches. I remove the wooden cover. The propolis quilt is left on. A strip of scantling an inch square is put on the front end of the hive and the same right along from one end of the hive to the other. A second tier of hives is set on top of that and so on right up three or four tiers according to what is necessary. Then, if the bottoms are not attached I raise them up and slip blocks under and give them the full entrance, and with the last tier on top I leave the wooden cover on loosely. I find very little difference between the hives with the bottoms attached and the others that have been raised up when they came out in the spring. My experience has been less than 3 per cent. dead in the spring when we took them out. I think that is about as fair an average for wintering bees in the cellar as could be expected. The usual temperature is from 40 to 45 and it sometimes runs up to 48. The ventilator in the cellar is simply an ordinary stovepipe run down to within about 15 inches of the floor of the cellar, brought up through the floor in the house and attached with an elbow and T into the stovepipe in the drawing room. What I have had the best success in wintering in is what I call the Gallup frame; it is about 11 or 12 inches. I find ten frames of this kind come out every

time better than the Langstroth.

President: I winter very much the same as Mr. Brown. Instead of having those stands I simply put down a hive body and then tier up each separately so that when we lift the hive either on or off we don't jar the whole lot. I pile them four hives high and the bottom is simply a surplus story. Instead of taking the trouble to block them all the way around, I put two blocks in front; I tip up the hive and in order to bring it to the proper level again I put a stick under the back end of it and go on that way to the top. I use quilts and leave them without being removed. In addition to leaving the entrance open I turn up the quilt at one corner at the top. I seldom lose any except by starvation.

Mr. Dickenson: I suggested four blocks and my reason is that having neglected to put blocks in the back end of the hive in one row I noticed particularly there was a dampness at the back part of the hive. Those that had been blocked up I found dry.

President: My cellar is probably drier than it is here. I don't care if the snow goes in on the hive; in a short time it is perfectly dry. There is a furnace in the adjoining room. In fact, I am a little afraid that the air is too dry. Probably with a damp cellar it would be better to have them blocked up all around.

Mr. Holtermann: I think you could accomplish the same thing by having them blocked up at the back and not the front. You have an opening at the front and the air can circulate right through. I think if you have some packing over your bees so as to keep the under surface of the quilt dry, when that is cool there is a tendency for moisture to condense and perhaps even drip on the bees. What we use is a felt that