

practice of destroying bees in the fall or shaking them off the combs.

Question: Do you think formalin will kill foul brood spores?

Mr. Miller: We had a good deal of discussion on that. I don't think I can add to the enlightenment of the bee-keepers on it. Prof. Harrison will be able to give us something on that subject.

Question: How much entrance space should be allowed in wintering full colonies outside?

Mr. Miller: I leave an entrance bridge four inches wide and about eight and a half inches long and I take a block about seven and a half inches across the front of that, leaving an approach open for my colony of about one and a half by one-half inch on the outside entrance.

Mr. Holtermann: Did you ever try leaving it about one bee wide?

Mr. Miller: No, I never have.

The President: That is the entrance to the outer case?

Mr. Miller: Of the outer case, giving a bridge piece of four inches to the hive; that bridge piece is entirely open.

Mr. Craig: Does eight and a half inches mean the whole width entrance of your hive?

Mr. Miller: The entrance to the hive would be one-half inch the whole width of the hive but my bridge piece is a strip with a two inch piece at each end, leaving four inches, in all eleven and a half inches; then I place a block at the outside.

Mr. Holtermann: Jacob Alpaugh has a way of adjusting an entrance which I tried for some years. He had a bridge about four inches wide at the centre of the hive there was a piece of pastboard put between that bridge and the front of the hive; that pastboard had simply a notch cut in it sufficiently large for one bee to pass through. When he packed his

bees the leaves were put in on each side which closed up the entrance; across the rest of the hive were forest leaves; the bridge was high enough so that when the pastboard was up above the front of the hive he could take his knife and reach the piece of paper and in cold weather draw it down, so that when he packed his bees there was a four inch entrance and when cold weather settled in such as now he simply drew down that piece of pastboard and left it one bee space. He claimed that the entrance would never be clogged that was with anything like a good colony because the cold didn't strike in the bottom so much and when dead bees fell down the bees could go down and clean away the entrance. I tried that and found it an entire success. Whenever the bees found out that the entrance was not large enough towards spring they would gnaw away the pastboard as they wanted room.

Mr. McEvoy: That is a matter of locality entirely. Down at Mr. Post's that would be to close.

Mr. Post: I am certain it would.

Mr. Holtermann: There comes in the principle of how you fix the top of your hive; you fixed the top so that there is little ventilation; then the moisture does not pass off at the entrance but up through the packing above.

Mr. Newton: My test with Mr. Alpaugh's plan was just the opposite to Mr. Holtermann's; in our locality of which Mr. McEvoy speaks they get clogged up. My friend Mr. Hall was in the same boat. I forget how many he lost the winter before. I was trying it and he says if you take my advice you would go home and pull them all out. When I went home I went to look at them and I was glad I took his advice to go out to see how they were because they were all clogged up; then they had some