

bees were hived in sugar hogsheads. And I have never seen swarms cast from an old-fashioned salt barrel or any receptacle of that kind. Take a large hive and give them abundance of room, and if the honey-flow is abundant they will work at that and not have much swarming; but give them small hives and they begin to give trouble. At the present time I can't think of any plan that will effectually prevent swarming.

Mr. Holtermann—Isn't the reason because they are confined in those hives during the daytime, and they are comparatively warm and the ventilation is not proper?

Mr. Taylor—I would like to ask a question of Mr. Holtermann. He spoke of looking for the starting of queen-cell cups. Are there no cups left over from the previous year in your hives?

Mr. Holtermann—There are cups, but I don't think anyone would mistake this year's cups. There is a very distinct difference. If those cups are there, and you expect a honey season ahead of you, that is the time you should deal with the swarming matter. When they begin to put brood and larvae and eggs in the queen-cells, in my estimation you have gone a step too far to prevent the swarming without a serious break up of your colony. To protect your colonies temporarily, requires a great deal of labor and a good many extra hives.

Mr. Baxter—Hunting for cups is too much work for me. I have found by 25 years' experience that there is an absolute rule to prevent swarming, and that rule is to have large hives, and see that they have room which, without giving any other ventilation gives them ventilation. But under certain conditions that is not enough. I want ventilation from below—I don't want it from above. It is sufficient if you raise a hive about $\frac{1}{4}$ of an inch

above the bottom board. I have hives some of which could be raised, and some could not be, and no matter how many supers I put on top of those movable bottoms, when the weather became warm they would swarm anyway; but where I raised the hives from the bottom and gave them sufficient room above, I have never had any trouble with swarms; and I have had as many as 250 colonies.

Mr. Holtermann—What is the length of your honey flow?

Mr. Baxter—It begins about the first of June, and ends middle of July, and occasionally in the last of September or the beginning of October. It is for extracted honey. I wouldn't bother with comb honey; I have tried it long enough.

Dr. Miller—In my locality, working for section honey, raising up the hives will help, but it won't prevent swarming; a whole lot of them will swarm. With reference to this matter of the size of hives, I believe in that general rule, and if I didn't believe in any other wise I would because of the testimony of the men I believe in so thoroughly as I do the Dadants; and yet in my locality that does not work. I would like it to. One year I got two of the Jumbo hives, deep frames 10 frames—and deeper than the Langstroth, and I was going to have them and have nothing else if those things didn't swarm. The next spring after they were filled, the very first colony that swarmed was one of those Jumboes.

Mr. Bohrer—With regard to ventilation, that big salt barrel had no upward ventilation but it had lots from below. In addition to Dr. Miller's trouble I had lumbago in handling same hive.

Mr. Holtermann—What did you do in the supers of those Jumbo hives?

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