

would have wintered as well as those in the bee repository, which is surrounded by walls of sawdust about two feet thick. The reason we put two quilts on each colony is that when examining them in the spring before taking them out of the clamp, after moving back the sawdust we lift off the first quilt which has more or less sawdust on it leaving the one next the bees quite clear, and in the examination we let no chaff or sawdust fall into the hive. From these experiments we are convinced that no person need construct a bee-house for wintering, when they can procure dry sawdust, or chaff, and pack them in clamp.

MY FIRST REPORT.

SINCE you solicit reports from subscribers, I will venture to offer a few items of my experience with bees, and this being my first report allow me to go back a little for a starting point and give two years' report at once. In the Spring of 1883 the bee-fever began to get hold of me, and I resolved to give more attention to bee-keeping than I had done heretofore. Believing that the summer stand is the proper place to winter bees, I felt desirous to obtain the best kind of hive for that purpose. Accordingly I sent for a sample of the D. A. Jones' Double-Walled Porous Palace Hive, which came to hand in due time, and pleased me so well that I concluded to construct all my hives on the same principle, but altered the depth so that the frames would be just right to hold two tier of sections, $5\frac{1}{4} \times 6\frac{1}{4}$. I also made the walls four inches in thickness, and some of the hives are made two-story high, and long enough to accommodate two colonies in summer, and a third one can be put in between them in the winter if I choose, an entrance being made in the centre for that purpose. In the fall of 1883 I had fifteen colonies in those hives, and for winter covering I first put over the frames a piece of cotton cloth, then two thickness of old fullcloth, or carpet, and then above this about six inches of chaff. Three of these colonies were on Langstroth frames hung lengthwise in the hive, with a space beneath them of about four or five inches, which was filled with dry chaff, except a vestibule one-half inch wide across the front end of inside of hive, in order to give ample ventilation and access to out door entrance. This idea of put-

ting chaff under them I borrowed from Mr. Hasty's plan described in *Gleanings in Bee Culture* for 1883, page 597.

On March 24th, 1884, I made the following entry in my diary, "Have examined bees to-day and found young brood in every hive; seven colonies full and strong enough for immediate honey harvest, five medium and three rather weak." The three weak ones were those that had the chaff under them. On the 11th of April they began to bring in natural pollen and all seemed to be doing well, until on the 23rd of April those colonies which had been considered weak seemed resolved to improve their condition in a summary way, and to accomplish this they performed a capricious freak. One colony swarmed out and entered the hive with another weak one. I then went and put a fresh card of honey into the hive in order that they might have plenty of food, thinking that they would be all the better for being united. Meanwhile I examined the hive which they had left to see if I could discover any cause for such conduct, and to my surprise I found the queen alive and well, (her wings had never been clipped to prevent her going with the swarm), and about fifty young bees crawling around the combs, also considerable brood, larva, and fresh laid eggs in three frames. I proceeded to cage the queen, intending to introduce her to my other weak colony, which had now become queenless. At this juncture I was called away from home on some business which detained me until towards night, and therefore I could not be present to watch movements. About sunset I went and opened the hive which I supposed contained the united colonies, and behold it was empty of both bees and honey. They had, evidently, swarmed out again and gone in with another strong colony. Apparently some severe fighting was done before the business was finally settled, for the platform in front of this hive was literally filled with fresh dead bees, none of which were there when I left the apiary a few hours before. When peace was restored I suppose they set to work and took home their stores which they had left. Next I went to introduce the deserted queen to the queenless colony mentioned above, and sure enough they too had absconded bag and baggage, not a trace left behind. Thus ends the history of those three colonies that were put into winter quarters with chaff under them.

Question.—What was the cause of such conduct on the part of those bees?

The most plausible reason which suggested itself to my mind was that the chaff below became saturated with moisture and when warm weather came on it soured, and the smell thereof