

we may not, and if we take them through until that time we may as well winter them. Many of us are so situated that from the 5th to 10th of April our bees may secure all the stores they require, and even more, for I have seen well filled sections from soft maple, and I have seen colonies fed in the clover honey harvest time. There is doubtless something in what G. B. Jones says, but most of us will consider it overdrawn, yet it is not unlikely, and may lead us to reflect in that direction, and cause us to give up an idea of pampering poor colonies handicapped with a load of disadvantages before ever winter sets in; colonies which will likely perish before spring, leaving combs in a nasty, filthy condition, and with their stores almost valueless. Just here let me say I have always found it an unsatisfactory task to extract honey from brood combs such as the Langstroth, and although we may figure on our bees having so many pounds of honey to winter, yet when extracted the quantity is deficient, and the quality decidedly inferior as a rule. I may say here I attach much importance to the proper method of keeping bees from consuming stores in the fall. If we keep handling our bees and exciting the apiary by attempts to rob on the side of the bees, and have them unprotected when cool weather sets in, my impression is they will consume more stores. I weighed nearly all my bees Oct. 9th and Nov. 8th, thirty days between, and find they have lost in weight from nothing to 5 lbs. per colony, an average of about $2\frac{1}{2}$ lbs. per colony. They have gathered, I think, practically, no stores during that time. The latter date is the one upon which I packed my bees away. It should have been done earlier, but I did not have the time. At the present date I have only a light packing of sawdust on top, as the fall is very mild. I can at a moment's notice increase the packing, as the front of the clamp is heavily packed and the back lightly, and one sweep of the hand and it is equalized. I prefer sawdust for the simple reason that the mice never trouble me with sawdust, but with chaff they sometimes have done so.

R. F. HOLTERMAN.

Romney, Ont., Nov. 14th, 1890.

The International.

Continued from the last Issue.

QUESTIONS.

Can an apiary be Italianized by daubing a young queen with honey and then dropping her into a colony just after a swarm has issued?

After some discussion it was said that a virgin queen was intended by the one who asked the question. Then all agreed that a colony could not be Italianized by a virgin queen.

S. A. Shuck, of Liverpool, Ills., said if honey was coming in freely, fertile queens, put in the hive in that way, would be accepted in ninety-nine cases out of one hundred.

President Taylor said that there was no necessity of daubing her with honey.

A. N. Draper, of Upper Alton, Ills., bought black bees and Italianized them by letting Italian queens run in at the entrance, when honey was being gathered rapidly.

A. I. Root said he was the one who had advocated introducing queens in that way. Queens an hour old could run in anywhere—but few are lost. They will be unmolested until they come to lay, then they settle it, and decide which shall remain.

A question was asked as to the size of a bee cellar, to have the best results.

Dr. Miller prefers a large cellar; he believes in plenty of room. But too large a cellar would not pay; yet there should be room enough so that the hives would not crowd too much. The depth underground should be about 8 feet. The entrance should be on the side where the general prevailing winds would not come. If on a side hill, let the entrance be where you can walk in on the level. It should have double doors.

R. L. Taylor said the sun would penetrate through doors more readily than through the sides of the building, and the door therefore should not be where the sun would shine upon it very long. The north or east would be preferable, and avoid the sun.

A. I. Root said a large body of air is preferable to a sudden change in the temperature.

Dr. Miller said he wanted good air for the bees.

A. N. Draper asked: If air is easily vitiated, why do bees winter well when they are buried in clamps?

W. F. Clarke said that the best size is all outdoors, and 50 miles high.

Dr. Mason said his cellar was 14x22 feet, and he there winters 50 colonies satisfactorily. Pure air is more needed in early spring than in winter, as that is the most dangerous time.

S. A. Shuck said that four years ago he wintered 130 colonies in a cellar 18x32 feet, but the air was very much vitiated, so that a lamp would not burn in it, nor matches ignite. He opened the door for awhile, and then the air was all right; but he could not see that the bees had suffered any damage.

C. P. Dadant could not believe that bees would live in such air as would extinguish a lamp.

S. A. Shuck replied that while the air was so bad that the lamp would not burn, the bees were all right.

Dr. Jesse Cren, of La Porte, Iowa, had wintered 280 colonies successfully in a cellar 16x28 feet, and 8 feet high. He had used it for 20 years.