

I believe if correctly arranged we can control the temperature to our liking with such an arrangement. I think this is Mr. Jones's view. Were I sure I could keep the temperature in my cellar from 40° F. to 45° F. easily and cheaply despite the outside blasts, I would never go to the expense of such ventilation. To be sure I did not succeed last winter even with it; but for my life I can't see why. My brother and many others whom I know winter satisfactorily with no such ventilation. Yet their cellars keep at just about 45° F.

I believe in short that we may dismiss the idea of carbon dioxide and oxygen, so far as cellar ventilation is concerned; but the heat and temperature problem we must not lose sight of.

A. J. COOK.

Agricultural College, Michigan, Sept. 18, 1888.

From the Bee-Keepers' Review

DANIEL MCFADDEN OUTDONE!

HERE was much in our bee journals a year or two ago about the the Daniel McFadden method of wintering bees in high latitudes. It seemed to be a case of suspended animation. If we advance a little farther toward the pole we find that the Dog Rib Indians living near the Great Bear Lake annually consign a greater portion of their tribe to the bottom of the Laake in hermetically sealed cases where they remain with animation suspended for several months, and upon the approach of warm weather they are fished out and restored by the animate portion of their tribe. In corroboration of the above there are Hindoo jugglers who will allow themselves to be buried several days with seemingly no injury; and now Dr. Tanner, of fasting fame, proposes to be sealed up for three days, and then to be restored.

If the human species can thus live without ventilation, it is high time that bee-keepers should try some experiments with their bees in our lower latitudes. It would certainly be an economical method for both bees and bee-keepers to get through the winter with suspended animation. In fact, they will be obliged to if we have many more seasons like the past.

Leaving the theoretical, or perhaps the fanciful, I am led to review my experience in ventilation, during the wintering of bees. My views have materially changed during the past few years, and I do not pay so much attention to the change of air as formerly. My bee cellar is provided with a sub-earth ventilator, but I have discontinued its use. I also have ventilators opening into an ante-room. These I now keep closed. The ventilators from the bottom of the cellar up through the roof are of more importance. A gradual draft draws off foul air, and there is no cellar made so tight but it will allow

enough fresh air to enter around doors, windows, etc. A strong draft with open ventilators for the ingress of air, changes the air too rapidly and causes uneasiness in the bee hive, while a slow draft and moderate circulation is the most conducive to an equal temperature and quietness.

I have thus a definite plan for the ventilation of the cellar. I have also a definite plan for the ventilation of the hive. In the past I have had indifferent success with quilts and porous absorbents. I now use, with better success, a broad cover which is securely sealed by the bees. The hive is also placed upon a two and one-half inch rim. Besides the entrance in front, there is a slot on each side one inch wide and twelve inches in length. This is covered on the inside with wire cloth. With this ventilating rim I have had good success in wintering.

When wintering out-doors I also use this rim, but cover the side ventilators with the packing. The ventilation question I think is but little understood. We have been too busy in disposing of our sweets at a time when we should be studying and experimenting upon this subject. I propose to seal up a hive as tight as possible with newspapers, and report in the spring. My bees will soon be ready for the cellar, and, as I have but little honey to dispose of, I shall be ready to start for the Great Bear Lake about November 1st. A kind invitation is extended to other bee-keepers in a like forlorn condition.

J. H. MARTIN.

Hartford, N. Y., Oct. 1, 1888.

In a postscript Mr. Martin avers that there is as much truth in this story as in Daniel McFadden's, and wants it accepted in the same sense.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

Preserving Drones Until Late.

QUERY No. 216.—I wish to preserve some of my best drones until late in the fall when other drones are gone, that I may cross some young queens with them and weed out my black blood. Is there any way it could be done?

A. B. MASON, Auburndale, O.—Yes. Take away the queen or give a very large hive.

DR. MILLER, Marengo, Ills.—Take away the queen from the colony having the drones.

JAMES HEDDON, Dowagiac, Mich.—Oh, yes; make the colonies which contain the drones, queenless.