

ject. It is of vital interest to a large class of industrious and loyal citizens to have honey come in under the same laws protecting the production of other sweets. Bee-Keepers must spare no efforts to have justice done them in this respect.

WORLD'S FAIR APIARIAN EXHIBIT.

The participation of Ohio bee-keepers in the Columbian Exposition should be considered by the convention.

I recommend the appointment of Dr. A. B. Mason, of Auburnville, O., as General Superintendent of the Bee Department at the World's Fair. Dr. Mason is a man of experience, and possesses the confidence of the bee keepers of the country.

I recommend, also, that a committee be appointed to confer with the Agricultural Commission as to space, and the appropriation due to the bee-keepers. It seems to me that an appropriation of \$5,000 would meet the requirements worthy of the State and the bee-keepers of Ohio. It is necessary to impress upon the General Government the magnitude at stake of the bee-keeping interests of the country.—*American Bee Journal*.

FOR THE CANADIAN BEE JOURNAL.

Mr. Newman's Reply to Mr. McKnight

Chicago, March 9, 1892.

DEAR SIR,—The only thing that seems to require any comments from me on McKnight's article is the sentence about the incorporation of the American Florists of Missouri, which was sought to be done in the U. S. Congress by Mr. Hatch, as noted on page 218 of the *A.B.J.* That was intended to be a *special incorporation*, by act of Congress. The North American Bee Keepers' Association was incorporated under the general law, and required no separate act of either Legislature or Congress. That is the difference between the two. If it had been considered of sufficient importance to have a "special act of Congress" to empower the latter association to do business, own property or accomplish other difficult undertakings, we might have applied for such an act, but it would have cost a large sum of money, instead of simply the \$3.00 which the association paid. No one suggested, either at Keokuk, or elsewhere, that a special act of Congress was desired. The only talk was about incorporating under the existing general laws.

As Mr. McKnight suggests that if such is desired, it is not yet too late to be accomplished. The convention at Washington can take the matter into consideration and do whatever may seem best, when assembled. I have no preference one way or the other, but seek only the general good.

THOS. G. NEWMAN.

From "American Bee Journal."

Temperature of Bees in Winter Quarters.

C. W. DATTON.

LAST October I prepared four colonies for Winter by contracting the brood chamber to six combs and putting on a solid inch

thick honey board, and letting the bees seal them down tightly. The latest flight the colonies had was on Nov. 16, and they were carried into the cellar on November 20, where the temperature ranged from 32° to 40°. Fifty thicknesses of paper were spread over each honey board.

After they were placed in the cellar they remained very quiet, but towards the last of January the honey boards began to become concave on the upper sides by warping, and there came cracks between the lines of propolis at the edges so that I could look in and watch the actions of the bees. The bees remained absolutely quiet. I could see their bodies projecting above the top bars, but there were no bees clinging to the cover board.

There were indications of moisture present in the form of large drops of water here and there on the cover, and also on the combs. This was the cause of the warped boards. By inserting the bulb of a thermometer into the cracks, and letting it drop down amongst the bees at the top of the cluster it indicated 61°. When the crevices were entirely stopped with paste so that no air could escape, the temperature remained at 64° in one colony, and 61° in another, and another 65°.

By the 10th of February, with the paste removed, I saw moisture attached to the honey board the whole width of the hive, just over the cluster where the bodies of the bees could be seen projecting above the frames, bringing the bees and moisture within one-fourth of an inch of each other.

Here were the tightly-sealed covers, and comparatively no covers to the brood chambers, with a difference between the two modes of only 3°. If this is the real temperature of healthy bees, I wish to inquire where the force is to come from that produces a circulation outward through the entrance situated at the bottom of the hive. The idea that a healthy colony will keep the inside of the hive warm and dry from their natural warmth is a mistake, and exists nowhere except in the imagination and theory. The thermometer does not reveal any such fact. Now, I do not say that there are no colonies which will not show this amount of warmth; indeed it was only necessary to turn my back to these tested colonies, and place the thermometer about half an inch from the cluster of a colony which was affected with diarrhoea, and the mercury jumped at 80°.

Seeing that these colonies were doomed to destruction from the accumulation of moisture, they were carried out of the cellar into a bee repository where the temperature has not yet been down to 50°, or above 65°; usually standing at 62°.

When I lifted the boards and papers off the hives, water literally ran off from them, and the hives showed that moisture had condensed on the combs and inside of the hive, so as to run down and soak through the joints at the bottom.

Two hours in a temperature of 62° rendered the hives dry. The brooding chamber remained uncovered for awhile, and then there was spread over them two thicknesses of newspaper.

To this covering one of the colonies objected, and manifested their intentions by getting uneasy and gnawing three or four holes in the papers, directly above the cluster of the bees. and a nice cluster of bees came up above the pa-