

winters his hives out-of-doors? You all talk about out-door wintering, but when it comes right down to it, if you do not put your bees into a cellar, you build a little cellar around each colony. Why not put them all into one big cellar?

R. L. Taylor—Did not think that it was necessary to keep bees in doors so very late.

The convention then adjourned till 1.30 p.m.

#### AFTERNOON SESSION. THURSDAY.

The first paper on the programme for this session was from Prof. Cook, on the alimentary system or apparatus of the honey bee the proof of which is not yet to hand. The convention then proceeded to select the place for holding the next meeting. Keokuk, Iowa, was chosen, and the election of officers was then held, which resulted as follows:

President—R. L. Taylor, Lapeer, Mich.

First Vice Pres.—Eugene Secor, Forest City, Iowa.

Secretary.—C. P. Dadant, Hamilton, Ills.

Treasurer.—Dr. C. C. Miller, Marengo, Ills.

The other vice-presidents are to be chosen by the executive committee.

#### REPORT OF COMMITTEE ON RESOLUTIONS.

The report of the committee on Resolutions was read and adopted. It is as follows:

*Resolved* That the cordial thanks of this Association are due, and are hereby tendered to the Brant Bee-Keepers' Association, for its kind invitation (extended at its last session) to meet at Brantford, and for the generous and efficient manner in which it has received and entertained this convention.

*Resolved*. That our thanks are also tendered to the Mayor and the City Council of Brantford, who have so kindly carried out the evident wish of the city, in granting us the free use of this hall, and in giving us a generous welcome.

*Resolved*. That the thanks of this association are due, and hereby extended to such bee periodicals as have given us the gratuitous use of their columns for notices of meetings, and in other ways giving their assistance to make this meeting a success. And to the city and other papers who have kindly published our proceedings, and for the correct manner in which they have reported our meetings.

*Resolved*. That the thanks of this Association are due and hereby tendered to the quartette who so kindly assisted in enlivening our session by the singing of our bee-keepers' songs.

*Resolved*. That the thanks of this Association are due and hereby tendered to the hotels and

railroads for reduced rates and accommodations, *Resolved*. That having been informed by a communication from ex-President, Thos. G. Newman (read by the President), of the severe illness of his wife, and of his regret at not being able to be with us in this convention, we hereby tender him our most cordial sympathy, and express our sincere regrets that he is not permitted to be with us.

To the Rev. L. L. Langstroth, the acknowledged father of modern apiculture, who is with us in thought but absent on account of failing health, we send most cordial greeting, and wish him a restoration to health and strength, and express our regrets that he is not here to cheer us by his presence, and enlighten us by his counsel and wisdom.

To S. T. Pettit, of Belmont, Ont., and E. D. Keeney, of Arcade, N. Y., who sent regrets for their inability to be with us on account of ill-health.

To J. F. Detwiler, of New Smyrna, Fla., who came so far as Toledo, O., and was prevented from attending the convention because of the death of his father, we also send words of cheer and our regrets at their enforced absence.

R. F. HOLTERMAN, )  
R. L. TAYLOR, ) Com.

The following telegram was sent to Father Langstroth: "The International Bee-Keepers' send affectionate greeting, and wish you were here."

Next came an essay from S. Cornell, of Lindsay, Ont., upon

#### Heat-Retaining Hive—How It Is Best Obtained.

Regarding the protection of bees against cold in winter, and during the time of rapid brood rearing in spring, I take the ground that warm air inside the hive is of the first importance, and that the temperature of the air outside the hive is only a secondary matter, provided the hive walls are composed of good heat-retaining materials. In a hive of bees we have, as it were, a self-acting furnace, keeping up a constant temperature of 65 degrees in the centre, and at least 50 degrees in the atmosphere immediately surrounding it, when the bees are the most quiescent.

As with live stock during our winters, so with bees, the better the heat is retained in the air in contact with them, the less food they consume, and the less vital work is required to keep up the standard temperature. That much of the heat generated, may be retained by the selection of best materials for the hive, is evident from the following account given by Prof. Pepper, in his work on "Heat."

One of the most interesting novelties displayed in the department devoted to Norway, in the French Exhibition of 1867, was the self-acting Norwegian cooking apparatus, constructed in the most simple manner, of a wooden box lined with four inches of felt, in which the sauce-pans containing the food, previously boiled and maintained at the boiling point for five or ten minutes, according to the nature of the food to be cooked are placed. The heated sauce-pans are covered with a thick felt cover, and the lid of the box being fastened down, the rest of the