he obtain a sufficient force of bees to get in the honey during so short a harvest.

Mr. Hall replied that the secret lay in the bees being kept so warm that they bred early. He expected his hives to have several combs with brood in them by the time he put them out in the spring. By May 20, there would be not only brood in 6 or 7 combs, but that number full of brood. He could not winter without pollen, because if he did, he would not have his bees bred early enough in the spring to gather in the honey. If they started without brood they would not build up to strong colonies until near winter. He did not agree with Mr. Heddon upon the pollen theory, but must thank him for his surplus case.

James Heddon—I expect to be as successful as Mr. Barber. I think that nothing has been said that disproves the pollen theory. Pollen does not injure bees unless they consume it. Prof. Cook has explained that bees may breed without taking pollen into their intestines. In some instances honey may be free from pollen; in others it is not, and the bees cannot avoid its consumption. I kept bees in a cellar in which the temperature often fell to 20°. Those having natural stores suffered from diarrhœa, some perished with it; those having sugar stores were free from. I will furnish the facts that in many instances one colony has survived and another perished under exactly the same conditions except food. Who will furnish the explanation?

Ira Barber—The higher the temperature, the better my bees have wintered. There is sometimes water in the cellar, and the combs slightly mouldy.

Mr. Heddon did not consider that the experience of Mr. Barber and Mr. Hall conflicted with the pollen theory, because bees did not necessarily eat pollen when they fed it to larvæ. Pollen would not hurt bees in winter, unless they ate it, and if the temperature was right they would not consume pollen.

Adjourned till 2 p.m.

AFTERNOON SESSION.

Ex-President Root called the meeting to order at 2 p.m.

Prof. Cook offered a resolution of respect to the memory of the late Moses Quinby, of St. Johnsville, N. Y., and announced the contribution of a handsome purse with which to purchase a portrait of the deceased to be presented to his widow. Mr. Quinby was one of the originators of this Society and its second president. This compliment to his memory was exceedingly appropriate and its announcement was enthusiastically received by the convention.

A. I. Root—I must go away in a few minutes, and before I go I desire to say that I have enjoyed this meeting very much. We may not have become rich by producing honey but this meeting has certainly done much good in uniting the bee-keepers of this country into one band. This convention has "taken the conceit out of me" and has given me a better opinion of my fellow men.

The discussion on wintering bees was resumed by Mr. S. F. Newman, who said—If such gentlemen as Mr. Barber and Mr. Hall meet with no winter losses, I should like to know what becomes of their bees.

Ira Barber—I work against increase and when I get more than I can use, I sell them.

T. Pierce—I have wintered bees for 3 or 4 years, the same as Mr. Barber does, and have been successful. I keep the temperature at from 44° to 50°.

L. C. Root—Do we understand Mr. Barber to say that he has no objection to feeding bees just before putting them into the cellar?

Ira Barber—I do not approve of it, but if I find any that need feeding when putting them in, I feed them. I think that fall honey is just as good for winter stores, provided the temperature is kept high enough. Old bees are just as good as any for wintering.

James Heddon—"Spring dwindling" I call bee-diarrhœa in disguise. The bees have had their vitality taxed to the utmost in retaining their feces, and when they begin brood-rearing the strain is too great, and they perish faster than young bees can be reared to replace the dying. When my bees winter well they are not troubled with "spring dwindling." I am not yet certain how much there may be in this pollen theory, and I am yet experimenting.

Rev. W. F. Clarke said there were three matters of great importance to him which had transpired to-day. First, Mr. Hall has explained his method of bee-keeping, and he was much obliged to him for it. Second, Mr. Barber and Mr. Hall had supplied confirmation of the hibernation theory. A year ago he did not understand Mr. Barber's method. Mr. B. said at the Rochester convention that he (Mr. C's) method was a cold system of wintering, and his (Mr. B's) a warm one. This was a mistake. Our systems are alike, only Mr. Barber, secured the right temperature in the whole cellar, and I secured it in the single hive. But Mr. Barber's bees quiesce in the fall; if the hive is too full of bees, a cluster will hang outside; they remain in torpor until the breeding instinct awakes, and then they arouse to activity. Third, the pollen theory has got its quietus from Prof Cook. He has told