keeping. Become a constant subscriber for one or two good bee periodicals, and read them and keep posted on the progress in our profession.

After you have read bee literature awhile, buy two or three of some one of the many good movable frame hives that are offered for sale; have them filled with large early swarms. See and know that each swarm has a vigorous and prolific queen; then attend to each hive and assist the bees in filling the hive with straight and allworker combs.

Now you will find something that you do not underetand, and I will not be present to tell you what to do. Refer to your books and periodicals, and practice what they teach. Do not talk about luck in bee-keeping. Do not worry about moths. Do not say that these things cost too much, and that you have not got time to attend to them.

If you once understand the business it is less trouble and less expense to succeed than to fail. It costs less to do anything right than to do it wrong. But if ill omens follow in your wake in bee-keeping, I would advise you to get out of the business or not to commence in it at all.

While you are advancing thus far in bee-keeping, make other subjects a special and careful study. Learn to know when a colony is queenless by the actions of the bees outside of the hive. Study the succession of honey plants in your neighborhood. Know at any time on what your bees are working. Learn to double up weak colonies, and weed out weak and puny queens.

Commence at the close of one season to prepare your bees for the next. Protect them against the cold of winter and the heat of summer, and especially do not expect them to winter on the wind.

Review and condense; become a student of apicultural literature. Use movable frame hives; secure straight combs; keep all colonies strong; study the habits of bees; study the honey flow and its source; become acquainted with all the modern fixtures and supplies in bee-keeping, and buy only those that will pay; know at all times the exact condition of your bees; allow them plenty of winter stores, and protect them from the extremes of cold and heat.

J. Banting wanted to know how to tell when a colony is queenless.

E. F. Quigley replied : Queenless colonies in spring will not carry pollen.

E. R. Garrett said: That is not safe. I have seen them carrying pollen when they were queenless.

John Conser said the best way to detect queen.

less colonies is to open the hive, and if queenless, the bees will be found running over the frames as if hunting for something, or as if lost.

Mrs. J. M. Null bore testimony to the same. G. P. Morton said that it might be known by the action of the bees in their flight from the hive. He recommended opening the hive, and ascrtaining beyond a doubt. He said that the pollen theory was not a safe conclusion.

Mr. Conser said that you would find the bees hunting outside the hive, and pulling at dead bees.

E. R. Garrett.—To straighten combs that are crocked, cut the combs and reverse the ends.

## LAYING WORKERS.

Mrs. Null wanted to know how to detect laying workers.

G. P. Morton said that a colony with laying workers is one which has been deprived of the queen, and the means of rearing a queen. To detect it you will find a scattered brood having raised caps, or shot heads, containing drone brood; and sometimes butts of queen cells, or even a fully developed queen cell, with a drone larva in it.

E. R. Garrett said to get rid of a laying worker, remove the hive some distance from the old stand, shake the bees off in the grass, and set the empty comb and hive back with a queen in, and when the bees return they will accept her.

G. H. Ashworth recommended to uncap the drone brood and give them a queen.

## EVENING SESSION.

The convention was called to order at 7 p. m.

The question box was opened by a committee appointed to answer the questions, viz: G. H. Ashworth, J. S. Atkins, and J. W. Clark.

Will inverting frames cause the bees to tear down queen cells ? We think it would.

What encouragement should bee-keepers hold out to farmers to sow honey-producing plants? No inducement unless they are profitable to farmers also.

What are the most certain indications of bees swarming? To see them coming out.

Will bees swarm without drones? Yes.

Has any one tried alfalfa in this country, and with what success? Yes. With varied success.

What is the greatest mistake you have made in bee-keeping this season? Making too big calculations on the honey crop; allowing bees to swarm too much; extracted too late in the season.

Are bees ever a nuisance? No. They are useful in fertilizing all kinds of fruit, besides storing honey.