

bably because some trace of acid remained on it, but after that the bees set to work, and cleaned out the diseased cells, the queen deposited eggs in them, and a month later I was unable to distinguish that comb from any other in the hive.

In October 1887 he again noticed suspicious indications, and in February examination proved the disease to be rampant. Unfavorable weather and other causes compelled delay in treatment until April. A wine glassful of acid was added to a gallon of syrup, and the combs filled with this medicated food, "with such good results, that by the white clover appeared I considered that, practically speaking, the stocks were cured."

The honey yield was evidently small and scarcity of food caused the queens to stop laying so that at end of season the number of diseased cells could be closely ascertained. Feeders with medicated syrup of the strength mentioned were put on, and in a month an expert found but six diseased cells in one hive, all the rest he pronounced healthy. In August, syrup of double strength was given and the bees took it without difficulty though the acid taste was very perceptible.

This year, Mr. Sproule says he has not seen a single diseased cell but mixed a little acid with the stimulating food, and keeps a little acid in the hive in a tin covered with wire cloth.

The success attained, has, he says, been effected without any destruction of bees, combs or quilts, without disinfecting a hive or other appliance.

Formic Acid is colorless, nearly odorless, highly antiseptic, evaporates at a low temperature, and is not objected to by the bees. It is very destructive to tin and zinc and these vessels should be coated with melted beeswax.

Our readers desirous of experimenting with the remedy may find some little difficulty in procuring Formic Acid, as it is not a commercial drug, but no doubt can be had on application to some of the best wholesalers firms.

Bees should have no antipathy to Formic Acid for they and the red ants were the original manufacturers of the article. And, as scientists have discovered that it is this constituent of the

poison sac that preserves the honey, we must conclude that the remedy appears to be a "natural one."

FOR THE CANADIAN BEE JOURNAL.

### Queens Finding their Homes at Mating Times.—Keeping a Record of Queens.

**I**N your issue of March 27th, in an article on the arrangement of an apiary so as to have the hives in pairs I stated, that it was decidedly an advantage in keeping a record of queens. I promised in a future issue to describe my plan of numbering and recording, and also how I enable young queens to find their own hives at mating time. There is no question, both for a record of queens and to enable the bees to locate their hives, that having these in pairs is better than when equal distances apart. If you place a number of hives in a row, say five feet apart, and in another row the same number in pairs each pair nine feet apart, thus allowing one foot between the hives forming the pair, you will readily see that it must be an advantage to both bees and queens, independent of the advantage to the apiarist. In an apiary arranged as I have described, with an eye to the 'Beautifu', something more is required than this, or many young queens will lose their way back at mating time. While I have nothing new to offer in this line, I will state what has been successful with me. With an accommodation for 260 colonies or 130 pairs, occupying about one-third of an acre. My plan is, on the 7th or 8th day after the swarm issues to examine and see if the young queen is hatched, and if so, destroy all unhatched cells, unless from those I wish to rear queens. I then in the easiest way possible make this hive unlike the rest, by placing a stick of stove wood or a piece of board against the front, even though it should in a measure obstruct the entrance. A little block placed close to the entrance may be all that is required. Other ways will suggest themselves. The idea is to make it different in appearance from those immediately surrounding it. In ten or twelve days I examine to see if the young queen is laying and if so I at once clip one wing, unless at a time when robber bees are troublesome. To do so at this time might endanger the life of the queen. This being done I remove whatever I may have used to change the appearance of the hive and use them elsewhere. Of course if the queen is not laying they are left until the hive contains a laying queen. Now as to a record of the queens. I simply have a book with as many pages (or half as many leaves) as I have double stands in my apiary. Now as my apiary is