

presence in the comb may be detected by the silk tubes straggling and branching over its surface, or better still, by the bottom board being covered with particles of the comb or bee-bread mingled with the black powdery excrement of the worm. The larvæ attain their full growth in about three or four weeks, having reached a length of about one inch, and ready to spin their tough white silken cocoons. The black excrement of the worm is mixed with the silk in the weaving. Cocoons are hidden in some corner or crevice, or under some ledge in the hive, and in due time the moth emerges.

Generally speaking, there are two broods of moth in the year, the first in May and June; the second, and most numerous, in August; though Prof. Cook, of Michigan University, says: "I have seen these moths in every month from May to September, and as I have proved by actual observation that they may pass from the moth in less than six weeks, I think under favorable conditions there may be even three broods in a year."

It is probable that the winter may be passed in any one of the various stages of the insect. Both larvæ and pupæ have been exposed to freezing temperature without harm to them. Prof. Cook quotes his friend Judge Andrews as saying that no bees, black or Italian, will be troubled with these insects, so long as the combs are covered with bees. When the silken tubes are found, pick them out and crush out the larvæ; kill all the moths found sitting about the outside of the hives. In day time they can be taken quite easily, and, as each female is capable of laying about three hundred eggs, the crush of two or three moths a day is quite an item in getting rid of the pest.

The bee has quite a long list of insect and other enemies, but none are compared with the bee moth, either in antiquity or mischief. It was known to Europeans more than two hundred years ago, but to American bee-keepers less than one hundred years.

JOHN MARTIN.

HONEY WANTED.

We will pay 12 cents per pound for good extracted honey, delivered in Beeton, in exchange for supplies at catalogue prices, and we will take all that offers, allowing 30 cents each for the tins when they are the "Jones sixty-pound."

COOK'S MANUAL—NEW EDITION.

We have now in stock ready to go by return mail the latest edition of Prof. Cook's Manual. The price this time is \$1.50, postpaid, but the increase in price is most fully compensated for in the increased quantity of matter and the better quality of the work.

SUNDRY SELECTIONS.

THOMAS C. HINDSON.—I am not keeping many bees yet. I find the JOURNAL very useful and enclose renewal of my subscription. In the fall of 1887 I placed eleven colonies in clamps packed in sawdust, but lost three in the spring through robbing. I had one increase and took in all 400 pounds of extracted honey from this hive. The remainder made sufficient to winter.

Brookholm, Jan. 23rd, 1889.

ARTHUR MURPHY.—The weather is very mild thus far. (Chestnut). My bees are packed outside in chaff-hives well protected on all sides, front only open. I began last season with four colonies and had no increase. I had also to feed back more sugar than I took honey. I hope the coming season will make up for the last two dull years. Under any circumstances I cannot do without the JOURNAL.

Bluevale, Jan. 15th, 1889.

BYRON WALKER, of Capac, had 12,000 pounds of honey as the product of his apiaries in 1888, and says he had only half a crop at that. Last summer he went to Helena, Ark., bought 100 colonies of bees, and arranged them in good shape to secure honey. After securing 3,000 lbs. he sent the bees to Capac, where he set them at work again and got 8,000 pounds. At the close of the season he had 280 colonies. His success this year encourages him to try this scheme again the coming season.

HEAD WORK.

In these days of scientific discovery and brain development the head and hand must work in concert—each be ready with its part—to attain and to achieve the best results. This is more true of bee-culture than of most pursuits which are largely mechanical—a routine of manipulation. The laborer, the mechanic, the artisan, have their regular round of work—a monotony, sameness, and roundness, requiring little deviation from a fixed routine. Not so the apiarist—whether amateur or professional. He soon finds that neither the "rule of thumb" nor the "rule of three" will do. New experiences and new phenomena will persist in coming up before him in the bee-yard. To deal with these his eye must be alert to observe, and his head attuned to think. Winter is the time to commence getting the head in gear. During the short days make the hives and fixtures, and during the long evenings read bee-literature and digest it. And as with physical digestion the nutrient material is separated from the waste, so in mental the wheat must be separated from the chaff of bee-lore. To be able to do this, the habit of careful reading, of comparison, of reflection, of analysis, must be formed.—[ALLAN PRINGLE in *Canadian Live Stock and Farm Journal*.]

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