

The Apiary.

Management of the Apiary for September.

(BY J. H. THOMAS.)

All honey boxes containing honey should not be removed. Examine all stocks and see that they have plenty of honey to carry them through the winter. About 30 lbs. is required to winter a strong stock safely. Weak stocks may be joined together, also late swarms, giving them all the honey they may have made.

Stocks that have not the above amount of honey should now be fed with honey or a syrup made of sugar and water, in order that they may have time to carry it into the combs and seal it over while the weather is warm. In weighing hives to ascertain the amount of honey it should be remembered that from ten to twelve pounds must be deducted for bees and bread, besides the weight of the hive. Where moveable comb hives are used, the honey may be easily divided among the stocks by exchanging cards of comb giving to all an equal portion.

It is bad policy to feed stocks in the winter when it can possibly be avoided, as bees winter much better for not being disturbed. Entrance to hives should now be contracted so as to prevent robbing and weak stocks should be well watched. Queenless stocks are almost sure to fall a prey to robbers, and if there seems a determination on the part of the bees to rob any one stock, it is pretty good evidence that such a stock is queenless, and if in a moveable comb hive it should be examined, and a queen given it, if necessary. Queens may often be obtained from those stocks that are to be taken up, as many people still take up weak or late swarms instead of uniting them.

Apiarian Experiences.

To the Editor of THE CANADA FARMER.

Sir,—I am pleased to notice that you are taking an interest in apiculture. In the spring of '63 I commenced with one hive, without any previous knowledge of the habits of bees, and from being surrounded by bee-keepers, all satisfied with and determined to continue the old plan of management, I have had to grope along in the dark, without any other information than that derived from reading, never having yet had the advantage of seeing any operation performed with bees. Not knowing any thing better, I made Langstroth No. 1 hives, and as soon as the swarming season was over transferred the present stock to one of these. My next object was to obtain possession of an Italian queen and this I did in September last. I last season got only one small box of honey from the old hive before swarming. The Langstroth hives are large, holding ten frames each, 17½ by 8½ inches and I thought they did well in stocking these large hives. Not being able to watch constantly I have been desirous of practicing artificial swarming but as yet find some difficulty in the matter. How are we to be sure our early swarms will not cast swarms again? I am afraid I lost an Italian swarm this spring from that cause. I made a swarm 30th May and on 27th June I found a queen cell and every indication of its having swarmed. The plan given at page 234 appears very simple. Langstroth says "A story which may seem plausible as almost to amount to positive demonstration, when put to the working test, may be encumbered by some unforeseen difficulty, which speedily convinces even the most sanguine that it has no practical value. It is one of the laws of the hive, that bees which have no mature queen seldom build any cells except such as are designed merely for storing honey, and are too large for the rearing of workers. When all goes right it is usually from two to three weeks before any eggs are laid in the mother stock; and when the brood left by the old queen has all matured, the number of the bees will so rapidly decrease, before any of the brood of the young queen hatches, that she will not have a fair chance seasonably to replenish the hive." Thus by the plan there given we may

expect to have the two empty frames filled with drone comb and the comb unprotected by bees exposed to the ravages of the moth. These difficulties it appears to me might be got over by supplying the parent stock as once with a fertile queen. But will they receive one? From all I can learn I believe that hives from which we desire to have surplus honey should be disturbed as little as possible, otherwise they might be examined through the season to see if there were any precautions for swarming. During the past season I have not aimed at more than doubling my stocks, from a desire to keep all strong. I have not been able to keep my queens pure, some beautifully bright are producing black brood, by perseverance however, I hope to overcome this next season, having now four queens raising pure brood. I have not yet touched the surplus honey. Can you inform me if the bee-moth are all alike? as to size and color? Are those enclosed the genuine bee-moth? I found them concealed about the hives and one was inside a hive. Are those sent male or female? Langstroth says the tongue of the female is double, but I hardly know what would be called the tongue. To those who are desirous of advancing in the knowledge of bee-keeping a bee journal would be interesting. Do you know if there is any such publication in Canada or the States?

Yours, &c.,

BRIAR.

NOTE BY ED. C. F.—We submitted Briar's communication to our experienced apiarian contributor, Mr. J. H. Thomas, of Brooklyn, who replied as follows:—"In reply to 'Briar's' first question, I would briefly say that we can prevent early made swarms from swarming again by cutting out the queen cells and removing an outside card of comb, giving them an empty frame. Or if Italians and the swarms was made as early as the 30th of May, we may divide again making another swarm. Swarms are made by dividing a stock which is called artificial swarming or making swarms.

There is but little doubt that 'Briar' lost a swarm as he supposes from that cause, that is his early made swarm. (30th May,) swarmed again.

The apparent difficulty which 'Briar' has found in artificial swarming would be removed, as he suggests by 'introducing a fertile queen.' He asks, 'but will they receive one?' Certainly, if introduced in the same or somewhat the same manner that he would introduce an Italian queen. But the difficulty 'Briar' finds is only apparent. After removing the two frames from the old stock which he wishes to divide or make a swarm from, the remaining frames should be placed together in the centre of the hive and the two empty frames, to replace the two removed ones, placed on the outside of the others next to the walls of the hive. If then the bees build store-comb it does but little or no harm as they seldom require the outside combs for breeding purposes but use them principally for storing honey.

'Briar' labors under quite a mistake in supposing that hives should not be disturbed from which we wish to get surplus honey. If a moveable-comb hive is properly constructed, the stock in it may be examined at any time without materially retarding the laying in of surplus honey. The honey box should not be removed from the honey board—both should be taken off the hive together as gently as possible when the comb builders will often continue their labour as if nothing had happened, and so soon as replaced the honey gatherers will rush in and deposit their honey as before. I can give no better description of the bee-moth than is given by Langstroth. The larvae of the bee-moth or miller grub as it is often called, vary in size according to the amount they have to feed upon.

There is a bee journal, monthly published in New York called the *American Bee Gazette*, price \$1 a year, Am. cy. The first number was issued in June last. I now have August number or No. 3. Address E. Van Slike, Editor and Proprietor, Office *Am. Bee Gazette*, 180 Broadway, New York."

A WEE SWARM.—Mr Bidwell, of Bidwell Brothers, writes to the *Agriculturist*:—"Our little girl wishes me to send the following message: 'My wee, small swarm of bees, is little smaller than Master Judd's little hen's eggs. It's only my two little hands full; and such beauties!—while my papa's swarms are two big hats full!' I will add, that the day being windy, only a few came out, with a young queen. On the next morning the old queen swarmed with 84 lbs. of bees, while the wee swarm only weighed with the little bush on which it lit a quarter of a pound!"

Entomology.

War on the Curculio.

The report from the Oneida Community, in "The Circular," says:—Two squads of infantry, each consisting of six men, including officers, have been detailed for the extermination of the curculio, and are making systematic raids every morning. Sunday morning, May 20, they left 413 dead on the field. Monday, 560. Tuesday the number of killed and prisoners was 413. A few burly specimens were brought home in a phial and put on public exhibition after which they were sent to execution. Wednesday a cold rain prevented the raid. This morning, May 23, though cold, the raiders started at the usual early hour, and had the satisfaction of killing one curculio. We presume they must have felt somewhat as Percy did when, after having "killed some six or seven Scots at a breakfast," he washed his hands, and said to his wife: "Fye upon this quiet life! I want work." People who want plums should follow this example.

The Similarity of the Insects of Canada and England.

On comparing collections of British insects with those captured in this country, we have been frequently surprised at the very great similarity, and oftentimes identity, that subsists between them. The following remarks by Dr. Jordan, of Birmingham, in a late number of the *Entomologist's Monthly Magazine*, afford some further evidence on this interesting subject:—

"On receiving lately a box of Lepidopterous insects from an entomological friend in Quebec, it was impossible (he states) to help being struck at the first glance with the great similarity between them and our British species. Sixty-six species were sent to me (the only selection being that when an insect was known by my friend to be English it was excluded); of these no less than ten may be classed as decidedly common to the two countries. On the other hand, there were eighteen only without any English generic ally; and in making this selection a rigid exclusiveness has been observed. The remaining thirty-eight are generically related to our native species, and in many instances the approximation is so close as to suggest specific identity also.

It is the business of entomologists to deal with facts, and not with hypotheses, yet the question of how are we to account for this similarity will obtrude itself upon our minds. Naturalization will account for some some part of it, certainly; and the history of this in *Pieris rapae* has been most admirably traced out by the friend to whom I am indebted for the very specimens now under discussion. Mr. Bowles; thus the *Vanessa* and *Scolipteryx* may be brought over whilst in their winter sleep, and awake in a new country, there to deposit their eggs, but *Madanippe hastata* and *Scotosia undulata* at least would be difficult to account for on any theory. If there was a distinct centre of creation for the two countries, we must either suppose that *undulata* was created alike in both regions, and Nature reproduced herself, or else if we turn Darwinians for the nonce that *undulata* was "developed" in both regions. Now it seems to me that if we are to take two cells or germs as our starting points, it is but an N'th chance (where N is infinitesimally small) that any process of natural selection should even develop the same order, *Lepidoptera*, in both the centres. How utterly impossible, then, must it be that they should both develop the same species!

If, on the other hand, the Continents were ever continuous, we have then in our friend *undulata* that often quoted individual "the oldest inhabitant," and a thorough-going Tory he seems to be, for not a spot or speck is changed on his coat, though he must have lived under different climates and under different circumstances in the two countries from those old days when mammoths were plentiful as blackberries, and long before the time when Adam was a little boy.

Seriously speaking, however, the *undulata* must teach us how vain at present is any attempt at a theory of creation, and how difficult to reconcile with the facts around us. We feel how little we do know, and how truly Tennyson speaks when he calls man—

An infant crying for the light,
And with no language but a cry."