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VOL. III, NO. 27

1887

SEPTEMBER 28

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



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"THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER."

VOL. III. No. 27 BEETON, ONT., SEPT. 28, 1887. WHOLE No. 131

EDITORIAL.

AT the Provincial Exhibition held at Ottawa last week the D. A. Jones Co (Ld.) were awarded 1st, 2nd and 3rd prizes for hives, diplomas for wax and honey extractors, and the silver medal for the best display of honey and supplies.

Mr. Thos. W. Cowan is in Washington at present. He intends to sail from New York on Saturday next.

The agricultural returns just issued from the Ontario Bureau of Industries contains a report of the honey crop this season throughout the province. Twenty-eight bee-keepers contribute and all agree that whilst the increase was good, the honey harvest has only averaged 20 lbs. per colony and careful treatment and liberal feeding will be necessary to carry the bees through the coming winter.

Do Bees Always Build Hexagonal Cells?

MANY of our prominent bee-keepers and writers assert they do, in fact it is the prevailing impression that bees always build perfectly hexagonal cells. We have now before us about one dozen different specimens of comb that have been cut out. These vary in size from four inches square to half the size of an ordinary comb. In these pieces

there are a large number of cells of almost every imaginable shape, some oblong, a few hexagonal and some V shaped; some have three sides the ordinary hexagonal shape, the other three made with two forming a V running off to a sharp point, some are formed somewhat like a V, then others are as perfectly square as the bees could make them and not a few are triangular; some are five sided, some are nearly round, some heart shaped, in fact we could hardly think of a shape that might not be found in some of the pieces. The square cells are in perfect rows two inches in width and six or more in length nearly all perfectly square. Most of these different cells had brood in them and we have not been able to detect any difference between the bees hatched in these peculiar shaped cells and those hatched in the ordinary ones. It seems that some colonies are more inclined to build peculiar shaped cells than others.

We have known some colonies to build more or less of these cells in every comb. Some may imagine that the bees with their mandibles are not able to construct other than perfectly hexagonal cells, but after years of close observation we have decided that they can and do build them in almost every conceivable shape. As to the cause we do not know what it is unless it be that the overseers get lazy and neglect to instruct the young bees how to go about their work properly. After considerable experimenting we have come to the con-

clusion that the old bees do build more perfect cells than the young ones. Now if the old bees in superintending the work neglect their duty and allow them to educate themselves that causes them to make such work, or is it an innate principle in some bees to do their work imperfectly? Has any one ever looked into this matter or tried to fathom it? We find some cells so small and of such peculiar shape that it is impossible for the queen to lay in them while an occasional one will be double the ordinary size. We are just viewing one now which has nine sides, is slightly oblong and nearly double the ordinary size. Suppose they built this one to raise twins in to see how it would work.

OUR OWN APIARY.

WE have been making some experiments to ascertain if possible how long bees will live on one meal or in other words, when their sacs are filled with honey how long they can live if kept in the right temperature. In experimenting with foul brood and fasting bees we have had them live for nine days; perhaps they would have lived longer but just as soon as a few bees fell from the cluster and their abdomens began to look smaller we would take them out feeling assured that the disease was cured, as experience afterwards always proved. In shipping queens we find that sometimes they die within five days, at other times we find that they live from twenty to thirty days although they would have food to go to whenever they required it. Since this question came up about bees being wintered without food away up north near James Bay these things have been revolving in our mind. We thought we would make some tests as we have a bee house which we think is well adapted for this kind of work as the sub earth ventilation pipe passes about 40 rods under ground and the temperature is about the same summer and winter and the chimneys which are on the top cause a draft to pass through it. By opening the draft and allowing a current of air to pass through and closing the bee house up tightly we have kept colonies from 12 to 21 days hanging there in a cluster. Twenty-one days may seem a long time for bees to exist

without any food except what they take with them in the abdomen, yet when the right temperature can be secured and the bees be induced to cluster at the commencement we would not be surprised to find that they might be kept very much longer. We may say that the bees which fasted twenty-one days are now in good condition and from all appearances promise to survive the winter. If any one had advanced the theory that they believed bees could be kept for twenty-one days as we have done we would never have believed such a statement. Now that we have actually done it may there not be some special conditions secured whereby bees could be wintered on much less stores? We think that this is something that we can all afford to experiment a little in even though we do lose a few colonies. Who knows but the next great stride in bee-keeping might be to take all the honey from them and have the repositories specially prepared with all the desired conditions and winter our bees without stores. There would be one saving at least; they would not and could not have dysentery and if we fed them once or more we could afford to get the best possible food for them, and even if we required to feed them once or twice during the winter what a saving this would be. We do not say that all this is possible but if we can keep them twenty-one days when we supposed that we couldn't keep them more than one third of that time why may we not reasonably suppose that we can keep them throughout the winter without food? Then again suppose it is necessary to feed them once or twice during the winter we might select and give them such food as would be best adapted to their requirements and least liable to give them dysentery. Then again they would have no more food to go to and would have to be satisfied with just what they had and could not continue to gorge themselves until their bodies become so inflated that they could not retain the contents. Suppose some of our scientists turn their attention in this direction and see what the result may be. If Professors Cook, McLain and others having bees in localities where they can put them into caves far down in the earth or in specially made repositories where any desired temperature can be

secured, would look into this matter no doubt further light on the subject and something interesting to all of us would be the result. Bees in the fall of the year are not so valuable as in spring, and we think experiments might be made without costing too much to the experimenters. Perhaps some of you will think that this will assist in proving friend Clarke's hybernation theory, but facts are stubborn things and it does not matter to us whose theory it proves or disproves. If we can secure a condition under which bees will exist for a long time without food it is worth while trying. We do not care whether it is called hybernation, starvation or any other name. If we can improve on any system it is our duty to do so. Live bee-keepers should never slumber in their business but make an effort to improve every condition to the best of their ability.

EXAMINE YOUR COLONIES CAREFULLY.

Have you examined your bees within the last week, weighed them and ascertained beyond any doubt that they have plenty of stores for winter? If you have not many will die of starvation long before spring. At one of our bee yards containing a few less than 200 colonies from which we had taken no honey except a little early clover, when the flow ceased there was enough in many of them to winter two colonies and we then decided that they had sufficient and could spare enough for fifty colonies more, so we extracted in some of our other yards more closely than we otherwise would, expecting to take from many of these hives sufficient to winter the others on but judge of our surprise on going over them carefully last week to find that they had, since the cessation of the honey flow, consumed so much that some of them actually required feeding. After equalizing the stores they had we find they will need from 5 to 15 lbs. before they will be ready for wintering. Of course their having such a plentiful supply on hand after the flow ceased caused them to breed more rapidly than those that were extracted and had less stores, so that now they are very strong. In bees some of them, we fear too strong, for we find that colonies having too many bees going into winter quarters commence breeding in winter and

frequently consume their stores and starve to death before spring. We prefer medium colonies when wintered in special repository, but for out-door wintering we think there is less danger of loss with those unusually strong. Not having sealed honey to give those colonies as we expected, we placed on about 100 Canadian feeders; about fifteen lbs. of granulated sugar syrup was put in each feeder. This was done late in the evening and by morning the bees had taken it all down except a little in the bottom. They were filled again and in about twelve hours the bees had taken it all down. Good strong colonies in warm weather with plenty of room below to store it will carry down from these feeders about 30 lbs. in one day. We are sending out such large numbers of feeders that we think not a few have decided to try them in preparing their bees for winter yet we feel certain that unless there is great care taken many colonies will die. The consumption of stores in the last two months will astonish many of even our best bee-keepers when they examine their hives. We hope this warning will not be unheeded by any. Have no guess work about it, take your scales, set the hive on them, take the gross weight and then deduct the weight of your hive. We usually weigh several and take the average weight of the hive, frames with bees, comb and stores. After deducting the weight of the hive deduct say five lbs. for bees, comb, pollen etc., then have no less than 20 lbs. in small colonies and 30 lbs. in large ones. We would rather have five lbs. more than one lb. less per colony. Plenty of stores stimulates bees and it is a great mistake to simply give them barely what will carry them through the winter. It might be wise to adopt the suggestion of one of our men who said: "You ought to put in every JOURNAL till bees are set in winter quarters, have you fed? have you weighed your bees? have you examined them, or are you going to guess at it, and suppose they are all right?" This is a very important matter and you should not forget to feed the bees any more than you should your horses. Now sometimes we find the weather cold when we feed and the bees clustered quietly on the combs. If the food is poured into the feeder cold they are not

much inclined to go up and take it, especially if the weather is very cold. Now, all that is necessary, even in frosty weather to make them take it, is simply to pour it in very warm. We have frequently filled the feeders with hot syrup which would indicate when the thermometer was placed in it, a temperature of 150°, or perhaps 175°. The heat from this syrup when the feeder was covered would pass down through the opening, warm the bees and warm up the whole hive, and they would sup at it carefully until it got cold enough, when it would be taken down and stored in the combs quicker even than cold syrup on a warm day. But hot or warm food fed in very warm weather is liable to cause robbing and when the weather is sufficiently warm, would not advise you to feed any but cold syrup until late in the evening when the bees would relish it, and the excitement be all over before morning. Our plan of feeding enables us to feed a colony without any stores, sufficient for wintering in one to two days. The excitement of feeding over, the bees seal it at their leisure and 25 per cent is gained by this system over slow method.

For the Canadian Bee Journal.

DOOLITTLE'S PACKING CASE.

NOTICE in the C. B. J. for Aug. 31, that Calvin Boyd wishes a description of my packing-case. It is made by letting the sides of the hive-project beyond the brood-chamber five inches on each side. On to the ends of these side boards, are nailed half-inch stuff of the same width as the other, which projects five inches beyond the sides on either side. To the ends of these then are nailed two more half-inch boards. This leaves 5 inches of space all around the brood chamber, which is packed with chaff or fine straw and left there summer and winter. In preparing for winter all that is necessary is to see that there is honey enough and put on the sawdust cushions I have described in back numbers of the C. B. J.

G. M. DOOLITTLE.

Borodino, N. Y., Sept. 15, 1887.

FOR THE CANADIAN BEE JOURNAL.

A MICHIGAN LETTER.

THINK that Mr. Young, the Norwegian apiarist, will most assuredly put the Canadian apiculturists—at least some of them—on a par with the Americans, "the foremost apiarists in the world." The honey exhibit at

the Toronto Exhibition was inferior to none in quantity and quality, and it plainly shows that our cousins have given considerable attention to apiculture, even if monarchical or semi-monarchical do cast a wet blanket on inventive genius and business activity. The "patient dirt" of advertising the superior qualities of Canadian honey will have its effects on John Bull, who is educated to believe that everything raised "in England is best," and when he gets it into his head that your honey is ahead of England, will prefer it on all occasions.

The Home Rulers have at last made them see the justice of their demands and they are even disposed to go farther than was at first supposed under the leadership of the peerless Gladstone—grander and greater than all European statesmen. I am willing to admit that Amateur Expert merits from the pens of Brothers Clarke and Pringle all the praise lavished on him and that he is a model for apicultural writers—in the British Dominions—but not for us Yanks. It is well known that America possesses the foremost press and the ablest apiculturists (coupled with the Canadians) in the world, and to hold up as a model a writer from a country so many decades behind as England argues from Mr. Clarke a mistake as great as that he charged Prof. Cook with when he said "Bees never hibernate."

An American does not succeed on the London press and I know that English writers do not on the New York dailies—in fact not half so well as the despised Canadians whom they may have displaced on the Canadian papers. The reasons are that educating habits and modes are diametrically opposite in aristocratic England, and democratic America, and what suits one reading public does not another.

As long as Heddon, Hutchinson, Pond, Doolittle, and McLain furnish us apicultural matter devoid of redundant verbosity we need not go to that country known as Bismark's "Sick Woman" for models. The poet Campbell, however, received a Roland for an Oliver when he attacked our flag, and I thought Dr. Mason had some advantage over the Amateur.

An Englishman don't know when he is beaten, and that is what sustains our buoyant controversialist from "Hold Hingland for hever."

GEO. J. MALONEY.

Alpena, Mich., Sept. 18th., 1887.

ARTHUR L. BOYDEN.—I was reading in the C. B. J. of Sept. 7 about late swarms, when the thought came to me that we had several swarms in September last year. These swarms were led out by queens reared the same season, so I don't think as Friend Demaree that late swarming is reduced by the superseding of the queen.

Saline, Mich., Sept. 12.

THE LAMBTON BEE-KEEPERS' ASSOCIATION.

MEETING of the Lambton Bee-keepers' Association was held in the town of Petrollea on Thursday, Sept. 1st. On account of the President not being able to attend, the chair was occupied by the Vice-President, Dr. A. E. Harvey, of Wyoming.

The minutes and discussions of last meeting were read and adopted; the roll of officers and members was then called and fifteen new names were added to the list of membership. An interesting day was spent in discussing the various questions as advanced. The election of officers resulted as follows: Dr. A. E. Harvey, President; Lewis Traver, Vice-President and J. R. Kitchin, Secretary-Treasurer. A vote of thanks was extended to the retiring officers.

The Sec.-Treas.'s. report was read, showing a balance on hand, and the association in good running order. This closed the business of the forenoon session.

AFTERNOON SESSION.

No speeches were given, nor essays read, so they proceeded with the question-box. The first question asked, was, "Is the Alley drone trap or any other such fixture on the front of a hive a detriment to the worker bees?" Mr. Boyd said that he had used the Alley drone trap but not enough to thoroughly test it but thought it was a detriment to the bees. Mr. Forbes said his experience with them was that they could not get out and in the hive so well with them on. Dr. Harvey said that he had had considerable experience with them and found them a detriment to the bees but were good if a person wanted to kill off all black drones.

Second. What time is it advisable to unite weak colonies in the fall of the year, and what is the best method of so doing? Mr. Travers made one queenless and then set one hive on top of the other, but smoked them all well first. He said by so doing the ones above would not likely come down for a day or two and by that time they would be acquainted with the ones below and would also forget their old home. He always doubled up when frost came.

Dr. Harvey thought it best to double up early in the fall when the flow was good, then they would be more apt to gather enough honey to winter on, for one strong colony was better than two weak ones.

Mr. Kitchin said that after the frost came he placed a couple of empty frames in the centre of a hive, made one colony queenless and put one in each end of the hive, they would then gradually get acquainted.

Third. What is the best plan of handling

bees to prevent robbing when honey is scarce? Mr. Travers said that about the best time to handle bees was from about four o'clock to seven in the evening. He thought best to smoke as little as possible, for when smoked they would fill themselves with honey and would be less liable to defend themselves. A number of the members said that if any extracting was to be done, the best way was to use a tent and be careful to not drop or daub any honey where the bees would get at it and there would be no danger of robbing. This then led to a discussion concerning the queen-excluding board.

Dr. Harvey thought it no advantage to keep the queen from going into the top storey.

Mr. Travers could not agree with him. He said he would rather have honey than brood in the top storey.

Fourth. What is the best method of wintering on summer stands?

Mr. Granger packed his in clamp, set them about four inches apart, placed them on planks and raised them from the ground, had four inches chaff behind them and six inches in front of them, left the honey board on and liked to have it propolised down tight with a space between it and the frames so as to allow the bees to pass backwards and forwards.

Dr. Harvey packed in boxes with oat hulls around the hives, fed on granulated sugar syrup with about one drachm of tartaric acid to ten pounds of sugar.

Mr. Boyd used the Richardson hive with success but did not like too much packing above the cluster, thought three inches was plenty, said his experience was that a sawdust hive with one inch packing was as good as one with three inches.

Fifth. What kind of a feeder is best for fall feeding?

Mr. Morrison and Kitchen liked the Canadian bee-feeder. Dr. Harvey used a bread pan with cheese cloth over it close to the honey and set it over the frames and in the morning the honey would be gone.

6th. When do bees rear drones in worker cells, the colony having a good queen?

Mr. Grangle said that necessity compelled them to. Mr. Kitchin said that the colony had likely been given full sheets of worker foundation and that they had no drone cells in the hive, nor any room for hatching them.

Seventh. When a colony gets too many drones what is the best way to get rid of them?

Mr. Kitchin never interfered with the drones in a good Italian colony, but clipped the heads off all the drones before they were hatched in a hybrid or black colony. Dr. Harvey said to cut

the drone comb out and give the frame to a weaker colony. They would then be likely to build out worker cells or else to put the drone comb in the upper storey with a queen excluding board on the hive.

Eighth. Can bees be wintered successfully in a cellar where fruit and vegetables are kept?

Mr. Forbes has wintered with success in cellar where fruit and vegetables were kept. He said that the cellar should be kept dark, and a person should not go in and out oftener than necessary.

Ninth. What strain of bees is preferable all points considered?

Mr. Forbes said that for honey gathering he liked a cross between the Italian and black; their only fault being their crossness. Some of the members had tried the Syrians, others had tried the Holy Lands, but the majority believed that for honey gathering a cross between the black and Italian was about the best. Dr. Harvey believes that they will make nicer and whiter comb honey than any other strain, but did not believe they were any better honey gatherers than the Italians. He said that some people tampered with Italians, because they were not so cross as the hybrids. He also said that bees were like a well-cultivated farm, the better they were handled, the larger would be the profit on them. The secretary then took down the number of colonies owned by each member of the association, there being 830 colonies in all.

This closed the proceedings of the day. Moved by Mr. Forbes, seconded by Mr. Neff, that we adjourn to meet in the town of Forest on the 10th day of April next.

J. R. KITCHIN,
Secretary.

From *Gleanings*.

PREPARING FOR WINTER.

WHAT prince among bee-keepers of twenty years ago, Elisha Gallup, once wrote that August and September were the months in which to prepare bees for winter, and after the experience of last fall and winter (which winter was the worst season for bees ever known in this locality, they being confined to their hives on the summer stands for five months without flight), I am ready to agree with Gallup exactly. A year ago I commenced getting the bees ready in August, finishing in September, and I never had bees winter as well during a severe winter in all my 18 years of experience. As I am again getting ready for next winter, I thought perhaps some of the readers of *Gleanings* would like to know how I did it. By beginning

at this date to put all in readiness as far as possible, I give the bees a chance to get their stores for winter placed just where they wish them, so that, by the middle of October, they are ready to go into that quiescent state so conducive to the best results. Working along this line, I proceed as follows:

I go to each hive, open it, and carefully remove each comb, noting the amount of bees, age of queen, square inches of brood, and pounds of honey. The pounds of honey are found by weighing a few combs of varying fullness till the eye gets so trained that every comb can be counted off as to weight of honey with an accuracy approaching perfection, while the square inches of brood is gotten by measuring a few different-sized patches, when it is easy to estimate it afterward. The age of the queen is told by looking at the last year's record, if her wings are clipped; if not clipped, I know she is of the present year's rearing, as the wings of all my queens are clipped in fruit bloom, and the amount of bees is told by observing their appearance on the combs. When I go over the hives in this way, I have some pieces of sections so that, as soon as a hive is closed, I can write down all about the condition of the inside. The piece of section may read something like this: "Aug. 20, 1887; 20 lbs. honey, 450 square inches brood. Bees, plenty, with good Italian queen reared in '85."

This piece is now laid on the top of the honey-board or quilt to the hive, and the cover put on, when two little flat stones are put on the cap to tell me what, inside said hive they are short of honey, but have brood to spare. For instance, if the stone is at the front right-hand corner, it says short of honey; if at the left back corner it says brood to spare; if at the right back corner it says honey to spare; and if at the left front corner it says short of bees and brood; while if all is as I wish for winter, a stone is placed in the centre of the cover. In this way I make these little stones tell me, at a glance over the apiary, just what each hive contains, so that it is now but a few minutes' work to go over the yard and equalize all so that each is in a similar condition for winter, when the little stones are taken off and slipped under the bottom-board of the hive where they belong when not in use. If any are still short of stores (25 lbs. is what I allow each colony) after equalizing, I feed to make up the deficiency, generally using honey, as I prefer it to sugar stores after repeated trials. As I write this out it looks like a long tedious job, and the readers of *Gleanings* will doubtless say that, rather than go through all this operation, they will simply lift the hives as heretofore and guess

that all have enough to carry them through. But to handle three or four hives is to become an expert, and if the readers will only try it they will soon find that, after a little, they can count off honey, brood and bees as fast as they can handle frames, which, together with the satisfaction of *knowing* just what each hive contains, will never allow them to go back to the "lifting-guessing" plan again.

Then I have also learned a new plan of uniting nuclei or queen-rearing colonies for winter, so that they can be ready early instead of being only poorly fixed at best when left till October, as they usually are. It is this:

The latter part of August, select the strongest ones from the lot, or as many as you desire to winter, and go to the others and take all but a little brood away from them, dividing said brood among those selected for winter. In doing this I take all the bees along (less the queen) that adhere to their frames. These frames of bees and brood are set right in the selected hives, and so far I have not had a single bee or queen killed. The bees hatching from this brood are the ones which go through the winter, and I like uniting in the brood form much better than in the bee form. The bees left in the now small nuclei are used up, and mostly die of old age by the time I am through queen-rearing for the season.

G. M. DOOLITTLE.

Borodino, N. Y., Aug. 18, 1887.

From the Bee-keepers' Advance.

IN-AND-IN BREEDING.

It is a well settled principle in stock raising, that for vigor, constitution, longevity, general usefulness, and therefore profit, it is necessary to avoid the breeding together of near relatives, or if done at all, it must be with the greatest care and good judgment. Vital statistics also show that where this law of breeding is violated in the human family, by the inter-marriage of near relatives, punishment is swift and sure. Imbecility of mind, impotency of body and barrenness are frequent results. In the vegetable kingdom too, are many illustrations of the manner in which nature has guarded the marriage relation of plants. In some plants the male organs are confined to one individual and the female to another. In others, although the flowers are hermaphrodite, the stamens and pistils ripen at different times, making it impossible to closely in-breed. The pollen must be carried or blown from flower or flower in order to breed at all. Bees are the chief agents in bringing about this cross-fertilization, as they visit so many flowers of the same species of each field, and hence are almost sure to fertilize the

plant visited with pollen of others not closely related. Thus varieties are multiplied by crossing, and vigor is maintained and increased.

Now if these principles of breeding are recognized in the above mentioned examples, why will they not apply with equal force to the breeding of bees?

Can it be they were created for the purpose of more surely cross-fertilizing the vegetable kingdom and they themselves not subject to the same law? When bees are kept isolated and no attention is paid to their breeding, is it any wonder that they degenerate and cease to be profitable? Were it not for the fact that queens and drones delight to fly quite a distance from the home yard, and in so doing meet others from apiaries two or three miles apart, often, we think the disastrous effects of in-breeding would be more apparent than they are now. But it is quite apparent in many localities even in this age of improvement and knowledge. How many places where bees have been kept for twenty-five years without any attempt at improvement in the way of introducing queens and drones from a distance? We often hear the term, "scrub cattle" applied to cattle where no attempt has been made to improve them by judicious breeding. The term, "scrub bees" would be just as appropriate in some localities. They need breeding up just as well as scrub cattle or scrub hogs. Some people act on the assumption that a bee is a bee, and that is all there is to it. If they have a hive with bees in it, that is all that is required. If they get any honey, well and good, if not they can't help it for "it's all luck anyhow."

What a wonderful impulse was given to the business of producing honey in this country on the introduction of the Italians. Was it because the imported bees were any better in their own country than any other pure race under like favorable surroundings? Nay, verily, but it was the *cross* on our native stock that produced the wonderful results. Everybody admits that for business the crosses are superior to any pure race. The races in their purity are very desirable. The purer the race the more prepotency in the animals bred from representing that race. If we start with scrub cattle we want a cross with something removed as far as possible by judicious selection and breeding that the improvement may be apparent at once.

The same rule will apply to bees. To "breed up" there must be the pure race on one side. But one cross is not sufficient.

What would be thought of the man's judgment who should attempt to improve his stock by only one cross with a thorough-bred short horn bull, and then go back to the "scrubs" again?

As foolish as this seems to a practical breeder, we see many examples of it. Such men say it doesn't pay to use pure blood. They forget this law, that the tendency is always to revert to the original type, and as the scrub is probably nearer than the short horn it don't take many generations for the traces of the latter to disappear.

Why does not the same law hold good in breeding bees? Even with the best races of bees in existence, one cross is not enough. New blood must be introduced to infuse new life and vigor. This should be kept up from year to year if the best results are looked for. Don't depend on hap-hazard crossing with the neighbor-bees, nor what is worse, the breeding in-and-in of your own, but bring from a distance your breeding queens. I believe this will be found to pay, whether working for honey or increase and whether breeding a pure race or otherwise. In the range of my own observation the men who have lost most heavily of bees have paid least attention to breeding.

EUGENE SECOR.

Forest City, Iowa.

From Gleanings.

BEE-KEEPING AS A LIFE BUSINESS.

“IT seems a pity he should settle down into nothing but a bee-keeper, when he might be successful in almost any line of business he should undertake.” Such expressions I have heard, when, so far as I could see, the only reasons for it were that it was thought the man might make more money at some other business than bee-keeping. I am aware that too much has been said of the bright side of bee-keeping in the way of urging every one into it, and I have protested against it; for in nine cases out of ten, the person who chooses bee-keeping as his life-business, *merely* for the money there is in it, will meet with disappointment. But for once I want to take the other side, and say something in the way of urging the choice of this business upon a certain class. Here is a young man about to settle down in life. His college course of study is perhaps finished (and I would urge upon every young man to get a collegiate education, whether he expects to spend his life in apiary, farm, counting-house or pulpit), and the question is, whether bee-keeping shall be his vocation. He has aptitude for the business, what little experience he has had in it has been successful, and he would really like to spend his life at it if he thought he could make as much money at it as at merchandise, albeit the confinement of a merchant's life is not to his taste. But the matter of money

stands first in consideration, and he decides in favor of mercantile life. My young friend you are making a mistake. In the first place, it is by no means certain that you will be one of the successful merchants. But suppose you are, and that you make double or ten times as much money as you could at bee-keeping. You go on at your business, looking forward to the time when you can retire and enjoy life. There are events that may hinder the realization of your expectations. You may not live long enough. If you do, you will find that your tastes have somewhat changed, and that the life to which you have for years looked forward with bright expectations is mainly a disappointment. On the other hand, if you follow your inclinations and adopt the pursuit of a bee-keeper, there is no necessity for looking forward to a certain time in the future for your enjoyment of life. You can take your enjoyment as you go—mixed, it is true, with pain and toil, but still a life of enjoyment. You have one important advantage over the merchant; your outdoor life gives you a physical vigor he can not enjoy. He has poorer food than you, even if he eats from the same dish, for he has not the same hunger to spice it. The mere fact of existence is a pleasure to a perfectly healthy animal, be he man or beast; and the man who eats his meals with a thorough relish is the better man for it, physically, mentally, and perhaps morally and spiritually.

HIGH VERSUS LOW SALARIES.

There is another view that is worth taking, and it applies to all callings—bee-keeping or what not. Compare two positions in life. A man in Chicago has a salary of \$2,000 and his brother in a country village, has one half as much, \$1,000. Which has the better place? Perhaps the Chicago man, perhaps not. Throwing aside all other considerations, and taking just a dollar-and-cent point of view, if the country man's annual expenses are \$600, and those of the city man's \$1,700 (and there may be that difference, even when each seems to be living equally well), the result will be that the country man will lay by one-third more annually than the city man, in which case the \$1,000 salary will be better than the \$2,000. Suppose however that the annual expenses in the city is \$1,500, and \$600 in the country. In this case \$500 is annually saved out of the \$2,000, and \$400 out of the \$1,000. Is the salary that clears the \$500 one-fourth better than the salary that clears the \$400? And it is to this particular point I want to call the especial attention of the young. Nine out of ten of the young will be dazzled by the larger salary; and when to this is added the larger annual saving, the question

is definitely settled in their mind. If they think far enough ahead they may find a factor they have omitted from the problem. When the time comes to retire from service—it may never come and it may be forced upon one before he desires it—when this time comes, the city man will be so fixed in his habits and mode of living, his family in their social circle, that he must continue his same life and same expense of living. Even if he had thought of going back to his former country life, he will now find it impracticable: the rule is, that men do not. Now let our two men be compared after the same number of years of service, say 15 years. In that time the one saving \$500 per annum has \$7,500 ahead, and the other, saving \$400 per annum, has \$6,000 ahead. But what is this worth to each of them? The first, spending \$1,500 per year, can live on his \$7,500 just 5 years; and the second, spending \$600 per year, can live on his \$6,000 just 10 years. So you see, when looked at from this point of view, the \$1,000 salary is worth just double as much as the \$2,000. In other words, the \$2,000 man lays by each year enough to support him four months, while the \$1,000 lays by enough each year to keep him eight months. Some of you young men that are itching to get into places to make money faster, think this over. It will make you a little more content where you are.

C. C. MILLER.

Marengo, Ill.

New York Star.

M'FINNEY AND THE BEES.

AN EX-POLICEMAN'S JOYS, DELIGHTS AND MISERIES OF RAISING BEES.

THE ubiquitous Star reporter was strolling along a country road last Wednesday. It was just at that hour when nature in her loveliest evening dress, conscious that the friendly shadows conceal every blemish on her fair face, strives to beguile with most potent witchery the hearts of men. The pale sky was blushing with the last kisses of her departed lord, a tender light touched the purple hills, the roadside fences were hung with vines whose every leaf was jeweled with dew, thick-fleeced ewes with their frisky offspring disported themselves under the apple trees in the old orchard, the low of kine, returning from the pasture, "set with slender galingale," came faintly to the reporter's ears. He sat down on a mossy stone, first spreading his handkerchief carefully over it, drank in the ethereal beauty of the scene, inhaled the breeze laden with incense stolen from closing blossoms, and listen-

ed to nature's harmonies, rising all around—the gurgle of the brooklet, the plaintive note of the whippoorwill. He tried to remember some of the Horace of his school days. "What was that about the ursurer—Attalicus, was it? 'Jam, jam—' about to become a rustic; but what was the Latin? *Facturus rusticus*, was that it? 'Jam, jam—'" A frog, with a grunt of disgust, plunged into the brook, and the reporter smote himself. "Hang the mosquitoes," he said, and, rising, had walked onward a few paces when he was startled by an uncouth figure sitting on the fence of a farm house, which was dimly visible through the trees in the gathering dusk.

The figure was sitting with its elbows on its knees and its face in its hands, which were incased in large fur gloves. Stocking legs covered the arm from wrist to elbow, while a black veil hung over the dilapidated hat, after the coy fashions of Castilian dames. As the reporter drew near it sat erect and shyly raised its veil. Then in a voice which extreme dejection seemed to have robbed of surprise, and which seemed familiar somehow, it said: "Good evening, Mr. Blank."

Looking closer the reporter recognized, with astonishment, the lineaments of one whom in former days he had known as a policeman in New York—it was solely in the way of business, that is, newspaper business, that the reporter had made the acquaintance of the guardian of the peace.

"Why, McFinney, how do you do! Great Scott! What's the matter? Smallpox?" exclaimed the reporter, as he saw the red swellings covering Mr. McFinney's face and the hand that had been unglued to clasp his own.

"Bees," said Mr. McFinney, laconically.

"Ah! So you are keeping bees? Very intelligent, interesting little creatures I have heard."

"Young man," said the veiled ex-policeman, earnestly, "my advice to those about to monkey with bees is—don't. I've been at 'em for two days now, and I find 'em something too intelligent; they can find a hole in a veil so quick it makes you dizzy. And interesting! They're like a detective story; when they hump up and get a focus on you, you want to finish 'em."

Mr. McFinney smiled feebly at his humorous conceit, and, laying his hand on the reporter's arm, continued confidentially:

"You know all the books say bee-keeping is such a nice, clean, pleasant business. So my wife thought she'd like to try it. She said she wanted some profit off the farm, and bees wouldn't make any trouble, but would just go

to work and make honey and money for us, and we wouldn't hoe 'em, nor milk 'em, nor weed 'em, nor churn 'em, nor nothing, but just let them set in the sun and work. One of the neighbors want to sell some, and we bought a dozen swarms and set 'em over there." Mr. McFinney indicated the place vaguely with his thumb. "A little book came with 'em that told how to work 'em."

"Well, yesterday my wife thought they'd been making honey for home consumption long enough, and said I must put in some honey boxes. I went to my son Melville—he was making a fish pole—and told him to put 'em in, but he said he was too busy to fool with bees, so I had to do it. I am afraid of bees and snakes. The book says to proceed boldly. I proceeded boldly and took off a cover, but the bees came out and I went away. The book said, if one were timid, to wear a veil and gloves, so I put on this rig; but it makes a man want to dodge when he sees a dozen just outside making for his eyes. The book said to blow a little smoke into the hive to quiet the bees; but the very first time I tried that the bees got as mad as the—as mad," concluded my McFinney mildly.

"They went for me on all sides. Luckily I remembered that the book said: 'If persistently assailed, retreat to the shade,' and I retreated to the shade. But I got a few boxes in. By and by my wife came out and said the way to manage the bees was not to be afraid of them. Some bees came out and argued with her, and she went back for a veil. We tried a few more and slapped them in boxes in a way that made the interesting and intelligent creatures swear like blue blazes, till pretty soon a hive swarmed out, and my wife said 'I must be getting back to my work.' I thought I would, too, for quite a number had taken up their quarters in my ear. My wife bragged that she put the boxes in any way. This morning I went out and found the corner on cornerwise and the bees just red hot and boiling over because the boxes were in bottom side up and one of the glasses was stove in. I told my wife that taking care of bees was nice pretty girl's work, and we'd leave it to Jenny when she got home from school."

Mr. McFinney paused.

"Have they swarmed any yet?" the reporter asked, sympathetically.

An ominous light gleamed in Mr. McFinney's eye. He had evidently been touched in a tender point, but he answered gently:

"Yes, they swarmed to-day. Yes, I think they swarmed this morning. I was hilling the corn when my wife blew the horn for me, and I

went down to the house. It was about 9 o'clock. My wife said that the bees were swarming, and she had a hive and a sheet and a brush and some sweetened water. Way up in the tiptop of an apple tree there were a lot of bees making an awful circus about a big black bunch that hung from a limb, and when I looked at I saw it was one crawling mass of bees. My wife said to go up a ladder and knock them into the basket and let it down. So when they had all settled I climbed up the ladder, but I thought it might soothe them to sprinkle some of the sweetened water on them, and when I came down I found that the puppy had drank it up and tipped over the hive and chewed up the sheet and hid the basket. Well, we got 'em all ready again, and then I went up and sprinkled the bees, and came down and got the basket and long handled egg beater.

"What!" said the reporter.

"It was a patent thing that we couldn't make work, and Mrs. McFinney thought I could poke them off the branch with it. I couldn't get near enough on the ladder, so I climbed up in the tree and held the basket under the swarm and scraped them into the basket! I don't believe the water had soothed them much; they hissed just like snakes when they fell into the basket, and my wife made me nervous. She kept telling me I was smashing them against the limb. Then I began to let the basket down, but it turned over in the air, and they all came out and flew most every way, but chiefly my way. They seemed to think it was all my fault. One 'gentle Italian worker' got under my veil and shut up my eye."

The reporter had noticed the peculiar expression given to Mr. McFinney's face by the mishap.

"Pretty soon," he went on, "they all went back to the same place, and just exactly the same thing happened over again; only this time the whole swarm went for me and I tumbled out of the tree. I hit the hive as I came down, and hurt my shoulder some, and the sweetened water got all over my hair. My wife said she didn't see what was the idea in tipping the basket over every time. They flew into another tree this time, and we set up the hive, and I got up in the tree and sawed off the limb. It was a big limb up in the top again, and my wife was to steady it with a pitchfork as it fell. Well, she missed it, and the fork scraped off every blamed bee. They doubled up and turned all colors, they were so mad; but finally they flew off again, and we were pretty tired and had our dinner."

"After dinner I went out again and found

them on a lot of little twigs. I picked them off and laid them in front of the hive and kind of brushed them along toward it. After awhile they all went in, and then after awhile they all came out. They crawled all over the hive and Mr. Jordan, the man I bought them of, came and looked at 'em with me. He said he didn't see what they were doing on the outside of the hive. They stayed there so long as I got kind of tired of seeing them crawl over each other and make faces at me, and I said: "I guess I'll brush 'em off into the sheet." Mr. Jordan put on his hat, and said: "I guess I won't stay, then." So I brushed 'em into the sheet and they all flew up and lighted on a fence over our swamp. I jammed my hat on and I said to myself: "Thomas McFinney don't let it be said that you couldn't collar a swarm of bees," and Melville and me went down there. We spread the sheet over the hummocks in the bog and set the hive on it. Melville had on his gum boots, so he waded in and drummed 'em into the sheet. About a quart fell into the water and drowned. They sissed when they touched the water as though they was red hot. But the rest were so tired that pretty soon they crawled into the hive and we've put it in place. "I hope they won't come out again to-morrow," said Mr. McFinney, not very hopefully. "I told my wife that it needs a younger man than me to gallop, and climb, and swim after her bees, and a more active." Mr. McFinney felt of his shoulder tenderly, and taking off his hat and veil, passed his fingers through his sticky hair. "Won't you come in and stay all night?" he said hospitably after a moment.

The reporter thanked him and declined. Soon he was again on his way. Night had fallen, and the moon, a great queen bee, was leading his swarm through the heavens.

"I think," said the reporter "that may be that old chap Attalicus, or whatever was his name, was about right when he decided not to jam, jam, be a rusticus."

SUNDRY SELECTIONS.

F. C. MATTHEWS.—I have one colony (a second swarm) which I hived on six frames with starters only and owing to the poor season they have only built comb about two-thirds down the frames; they are pretty strong in numbers and are still raising brood. Will they winter on summer stand in chaff hive under such conditions? As there may be other novices in bee-keeping thus situated, a few lines of advice from your able pen, through the C. B. J. would be acceptable.

Ray St. S., Hamilton.

Bees will winter just as well, if not

better, when the combs are not built full down, as it leaves more space under the frames for dead bees, etc. Short combs when well filled with food are better in some respects, as it enables the bees to cluster more together on the bottom of the combs, and it seems that less food is sufficient for them. We have wintered such colonies from the time they were placed in winter quarters until placed out on the summer stand on about two pounds of stores, but should not like to run the risk with such small quantities again, but would prefer them to have at least fifteen pounds. The closer bees cluster together when in winter quarters, the less food they will consume, and are not so liable to have dysentery, and we think they will winter much better. The cause, we suppose, is that they accumulate the bodily heat of each other. We have frequently noticed such colonies give us better results the following season than some very strong ones.

Convention Notices.

North American Bee-Keepers' Society and the Northwestern Bee-Keepers Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, \$1.75 per day, each; front room, \$2.00 per day each person. This date occurs during the second week of the Fat Stock Show, when excursion rates will be very low.

MICHIGAN STATE BEE-KEEPERS' ASSOCIATION.
—At East Saginaw, December 7th to 9th, 1887.
H. D. CUTTING, Sec., Clinton, Mich.

THE CANADIAN BEE JOURNAL.

THE D. A. JONES Co., Ltd.,

PUBLISHERS.

D. A. JONES,

Editor
and President.

F. H. MACPHERSON,

Asst. Editor
and Business Manager.

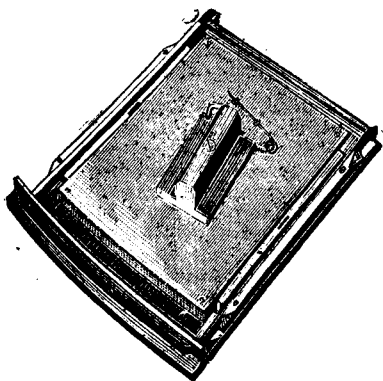
BEEON, ONTARIO, SEPTEMBER 28, 1887.

BUSINESS DEPARTMENT.

We have more bees than we want to put into winter quarters and we propose offering them at exceedingly low prices to dispose of them. A great number of our colonies are in the new combination hives, and we are prepared to sell good full colonies for delivery at the present time at \$6.00 per colony, in lots of 5, \$5.75, in

THE MITCHELL FRAME NAILER.

The "Mitchell" Frame Nailer is light, handy and cheap—anyone who has a few hundred frames to nail will find it advantageous to have one of them.



- For Jones' Frame S. W. Hive.....\$1 25
- " " Combination Hive..... 1 25
- " " Langstroth Frame..... 1 50

THE D. A. JONES CO.

TESTED * QUEENS!

We have just run over our apiaries and find that we have yet 103 specially selected and tested queens, bred in July and August last year. They were selected from several thousand and we will guarantee every queen to give satisfaction. While they last we will let them go at only \$1.75 each, or \$1.50 each for six or more at a time. This is a rare chance to get queens at about half their value.

THE D. A. JONES Co., LD., BEETON.

OUR 60 LB. TINS.

We have already sold enough of these to hold a crop of over 100,000 lbs of honey. They are better made than ever, and are encased in our new style of wooden case. Have a large screw top, as well as a small one, and are thus excellent for granulated as well as liquid honey. The prices are:

- Each.....\$ 0 50
- Per 10..... 4 80
- Per 25..... 11 25
- Per 100..... 42 00

"Charcoal" tin used in these. As a rule "coke" tin is used.

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CANADIANS

Want to supply their wants at home as much as possible, but heretofore they have not been able to do so, at least for bees by the pound, frames of brood, and nuclei. We have decided to furnish them at the prices as found in the following table:

BEEES BY THE POUND.

	May	June	July	Aug st	Sept.
Bees, per 1/4 pound	1.75	1.50	1.00	1.00	.90
" " pound	3.00	2.50	1.85	1.75	1.70
Frame of Brood	1.75	1.50	1.00	1.00	.90
2-frame nucleus..	4.00	3.50	3.00	2.75	2.50
3 " "	6.00	5.50	4.75	4.50	4.50

Frames of brood cannot be sent alone. Queens are not included in above prices. Choose the kind you want and add enough to price found here to cover cost of queen.

Two frame nucleus consists of 1/2 pound bees, two frames partly filled with brood and honey, and a nucleus hive. If wanted in either "Jones" or "Combination" hive, add price made up, and deduct 40c. for nucleus hive.

Three frame nucleus, same as two-frame, with the addition of another half pound of bees, and another frame of brood, etc.

All prices here quoted are for frames that will fit the "Jones" or "Combination" hive.. You may have whichever style you desire. Be sure to specify when ordering.

The above must go by express.

QUEENS.

	Homebred	Untested	Tested	Selected	Virgins
May	2 00		2 50	3 00	
June	1 50	1 00	2 00	3 00	0 60
July	1 00	90	2 00	2 50	50
August	1 00	1 00	2 00	2 50	50
September	1 50	1 50	2 50	2 75	
October	2 00		2 50	3 00	

FULL COLONIES.

	Italian	Holy Land Crosses	Carrollian Crosses	Hybrids
May	\$9.00	\$10.00	\$11.00	\$8.50
June	8.00	9.00	10.00	7.50
July	7.50	8.00	9.00	7.00
August	6.50	8.00	9.00	6.50
September	6.50	7.00	8.00	6.00
October	7.00	8.00	9.00	6.50
November	8.00	8.00	9.00	8.00

The above prices are for up to four colonies; five colonies up to nine, take off 3 per cent.; ten colonies and over, 5 per cent. Colonies as above will each have six to eight frames of brood bees and honey, and good laying queen

The D. A. Jones Co., LD., Beeton.

TOOLS For BEE-KEEPERS

HAMMERS.

We shall hereafter keep in stock a full line of tools suitable for bee-keepers. For ordinary use, where a person has only a few hives, etc., to nail, we have an iron hammer (with adze eye) which we can send you at 15 cents.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c., 50c., and 60c each.

Small hammers—steel face with adze eyes, just what are needed for frame nailing, etc., No. 55, 35c.; No. 52, 50c.

SCREW DRIVERS.

With good hardwood handles and of the best steel—nicely finished, round bits, in two kinds, No. 1, 5 inch bit, 13c.; No. 2, 6 inch bit, 20c.

TWO-FOOT SQUARES.

In iron squares we have two kinds—the first of these is marked down to one-eighth of an inch, and is marked on one side only, the price is, each, 20c.

The other style is marked on both sides down to one-sixteenth of an inch—price, each, 35c.

We have a splendid line in steel squares which we can furnish you at \$1.35. They are well finished and are usually sold in hardware stores at \$1.75.

TWO FOOT RULES.

A splendid line in rules we offer at, each, 18c. Then we have a nice box-wood rule at, each 25c.

HAND SAWS

Just at the present we have but one line in these—26 inch long—A. & S. Perry's make—usually sold at 75 cents we offer them for 55c.

PANEL SAWS.

These are what are often called small hand saws, and for the finer classes of the bee-keepers work are indispensable. We have started out with two lines in these. The 18 inch are of good steel (Shirley and Dietrich) and can be sold by us at 50c.

The 20-inch are finer steel—same make—that money.

PLANES.

Iron block planes, just the thing for dressing off hives, each, 75c.

Wooden smoothing planes—the best of the kind, 85c.

All the above goods are sold at prices 20 to 25 per cent. below the ordinary retail price, so that when ordering other goods you may just as well have any you want as the cost of transportation will not be any greater. These will be included in the next revision of our price list.

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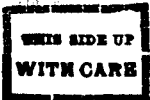
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