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VOL II, NO. 16.

1886

JULY 14.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER



JOURNAL

APR 24 1874

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—THE D. A. JONES (LD.) CO. Beeton, Ont.

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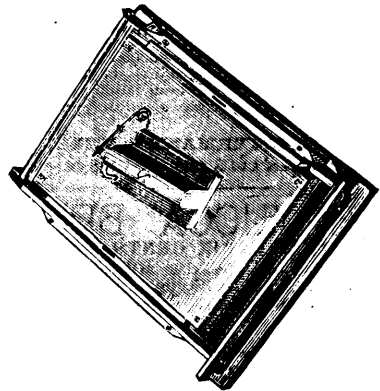
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T. S. HALL,
Kirby's Creek, Jackson Co., Ala.

A YEAR AMONG THE BEES.

A new bee-book of 114 pages, cloth bound. Price 75 cents. Sent postpaid by the author.

DR. C. C. MILLER, Marengo, Ill.



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

VOL. II. No. 16. BEETON, ONTARIO, JULY 14, 1886 WHOLE No. 68

FOR THE CANADIAN BEE JOURNAL.

REPORT ON WINTERING—QUEENS LAYING AT 40° BELOW ZERO.

ON page 602 of C. B. J., for 1885, in your foot notes to my report there given, you expressed a desire to know the result of my experiments. I give it with pleasure: I commenced last August to prepare my bees for winter by spreading the brood frames about one and three-quarter inches from centre to centre, in order to have them built out and filled with honey, but as the autumn flowers in this locality were nearly all devoured by grass-hoppers, very little honey or pollen was gathered by the bees, the combs were not plumped out well; the wide space between the combs and the scarcity of honey greatly discouraged brood-rearing; consequently they were mostly old bees that went into winter quarters, and some colonies had very little or no pollen in the hive. When there was no longer any prospect of their getting a sufficient supply for winter stores from the field I commenced feeding, and not having feeders enough to feed all at once, some five or six colonies were supplied by laying combs down flat and pouring the feed into them until every cell was full from top to bottom, and then they were hung in the hive; but the bees did not cap this over very well, and towards spring it seemed to collect moisture, got thin, soured, dripped from the combs and ran out of the hive at the entrance in some cases. Every colony supplied in this way perished before they could gather fresh stores this spring. One colony starved out-right, not leaving one single drop of honey nor pollen in the hive, but the combs were clean and dry as new foundation. I put two colonies in my cellar, placed them on a bench about two and a half feet above the cel-

lar bottom, and right under the stairs where some one was passing up and down several times every day; they remained there from December until April, and not a bee offered to come out to fly that I know of, although they were not fastened in the hive, entrance being open full size eight by three-eighth inch, and the cellar was light enough to see to read in comfortably every day. I set them out on the 9th of April, apparently healthy, one was queenless and they both dwindled down to nothing in a few days. But I have something better than this to tell. I prepared two colonies after Wm. F. Clark's directions, with a hole in the bottom of the hive, and a hibernating box underneath, these wintered through in most excellent condition. On the first of May one of them fully occupied twelve Jones frames, ten of which contained brood, the other two were packed so full of new honey that the queen could not find a place to squeeze an egg into. I also prepared a number of colonies by placing the combs and bees in back end of hive, putting a stuffed division board in front of them, with passage underneath it, packing overhead the same as before described. This arrangement provides an empty or vacant chamber in the front part of the hive as a reservoir for air, a fresh supply of which is constantly furnished through the ventilators in the gable-ends of the hive covers, the usual entrance being closed tightly as possible to keep the cold winds from blowing directly into the brood nest. Colonies prepared in this way wintered just as well as those upon the hibernating-box, so far as I could judge. On Feb. 3rd the thermometer stood at 40° below zero, on the 8th it was warm and pleasant, and I opened one hive and examined the colony, and found fresh laid eggs, eggs just hatching and larvæ in all stages up to capped

brood which indicated that the queen had kept right on laying in her warm cosy nest regardless of what the thermometer was doing outside. On the twelfth of April the weather became warm and fine, and on the 14th the bees began to bring in pollen very freely. At that date all of my colonies that were alive were in good condition, and the next ten days were all that could be desired at that time of the year. On the 22nd I found that nearly every hive was packed so full of new honey from willow, soft maple, etc., that there was scarcely an empty cell to be found wherein the queen could lay an egg, and they had from eight to 12 combs each, according to strength of colony, yet, notwithstanding the warm favorable weather, some of my colonies which had no pollen in the hive wherewith to raise young bees in winter, dwindled down badly during that ten days of summer like weather; in their eagerness to gather in the rich harvest of nectar which nature supplied, they wore their life away and died with old age pure and simple. Those colonies which had plenty of pollen and bred up young bees in winter, were much better prepared to stand the strain of such labor, and are the best and strongest to-day. If other conditions are right, I, for one, much prefer that my bees should have pollen with their winter stores.

JOSHUA BULL.

Seymour, Wis., June, 1886.

FOR THE CANADIAN BEE JOURNAL.

A BEE HIVE TEMPERER.

ON page 207, you make some suggestions about a "Bee hive temperer", and as I experimented quite extensively in that direction some ten or twelve years ago, it may be well for me to tell what I did, even at this late day.

Those of us who were readers of the bee papers during the years 1870 to 75 remember how much was said in them about the necessity of our bees, having winter flights to prevent getting diseased. A. Mr. Bidwell of Michigan, made some experiments with keeping bees in a glass covered house. The rays of the sun passing through the glass roof, so raised the temperature inside the house, that the bees could enjoy frequent flights during the winter. This plan failed of success on account of the large numbers of bees that did not return to their hives when the temperature became too low for them to fly.

About the same time Mr. Bidwell was making these experiments with flying bees under glass, some other person whose name I forget, wrote about having given his bees a flight in the winter by taking a few colonies at a time from the cel-

lar into one of the rooms of his house that was heated to a temperature of 70° to 75°, instead of allowing the bees to range all over the room, he confined them to a glass covered box on top of the hives, the hive covers and honey boards being first removed. This was claimed to be successful, but so far as I know has never been practised by any one except the originator.

About the time these experiments were being discussed in the journals, were my days of disaster and trouble in the matter of wintering bees, and I was on a keen look out for some plan to avert future troubles of this kind. The idea suggested itself to me of combining the two plans mentioned, and I did so. Instead of allowing the bees from several colonies to fly inside of a large glass-covered room as Mr. Bidwell did, I confined them to a glass-covered box on top of the hive, the inside of the box being warmed by the rays of the sun instead of by a fire in a room as did the other person. I found on experiment that the glass would have to be sloped towards the sun, and be much larger than the top of the hive. To arrange this, an outer box some 5 or 6 inches larger all around than the hive, was made out of rough lumber, and the spaces between this and the sides of the hive were filled with chaff, which happened to be the material the easiest obtained; the object of using the chaff being to keep the bees from falling down outside the hive but compelling them to return to the open top of hive. Over this box was fitted a window sash, so as to leave a space of about six inches between top of frames and the glass. Over the frames was commonly kept a coffee sack filled with chaff, but whenever we would have a temperate sunshiny day, I would remove the sack and allow the bees to fly, which they would do quite freely. Tests with the thermometer showed that the sun's rays through the glass raised the temperature inside of the box from 40° to 50° higher than would be the temperature of the outside air.

The result of this experiment pleased me very much and I used it quite largely for the three or four following winters, but finally abandoned the use of the glass on account of the extra expense and labor required to use it, and the fact that the use of chaff seemed to be the really valuable part of the whole thing. Now, it may be possible to just temper the temperature in the hive by the use of glass to allow the bees to move round &c., as you suggest, but the practical difficulty will be to keep the amount of temperature so obtained under control. It will be of no value unless raised high enough to accomplish the objects aimed at, and a very few degrees higher than necessary, will start bees

flying from the hive into the freezing air, resulting in the death of all bees that take wing. I was forced to stop up the outside entrance whenever I flew the bees under glass.

I think I should practise this method of flying bees under glass now, if I only owned a few colonies, but it would be too costly and laborious if used in as large an apiary as mine now is.

Although not using glass over bees in winter now, the use of it several years ago, gave me my first idea of the use of two of the most important in my apiary, viz.: chaff hives, and the fixtures Solar Wax Extractor; in fact the same identical box and window sash that I first used with chaff packing and glass over bees in winter, was used in the following summer in testing the plan of rendering wax by the heat of the sun.

It seems almost useless to now detail these almost forgotten experiments of so many years ago, but your suggestions called the matter up and what I have written may save others from going over the same ground I spent so much thought and labor in going over.

O. O. POPPLETON.

Williamstown Iowa, June 26th, 1886.

We thank you friend P. for the ably written and interesting article. By the way, would not this same reflector remove sufficient moisture from colonies badly diseased with dysentery to assist them through till spring?

For The Canadian Bee Journal.

THE HIVE TEMPERER.

SEE you are calling for contrivances for heating and ventilating the bee hive. I have thought that ventilation from the bottom could easily be secured by means of a small tin tube affixed to a corner and reaching from the bottom to the top of the hive and the opening at the top divided by a couple of pieces of tin crossing each other at right angles and having a width of half inch or inch.

Such an application was put on the ceiling of one of the Toledo churches and it certainly gave them fresh air, too much of it in fact, as the air was poured down on the heads of the audience somewhat like a douche bath.

The inventor of this method of ventilating could give no reason for the operation of the instrument. The simple fact was found to be that the division of the orifice caused currents of air to ascend and descend at the same time.

Any one can test the matter at any time by having the pieces of tin made to fit the top of a fruit jar. Then lighting a small piece of candle and putting it in the bottom of the jar, when it will soon go out for want of air. Re-light, fill

the jar with air and put in the candle, let it burn till nearly out then put on the tin and if ventilation takes place, the down drafts occasioned by the divisions of the mouth will at once revive the candle.

J. W. MARGRAVE.

Hiawatha, Kan.

We do not understand exactly how one tube could carry off foul and bring down fresh air at the same time. A double tube, we think, could be used successfully. What we wanted was to get heat into the hive, and to keep it there as long as possible.

INCREASE.

IN a letter from Mr. Samuel Cushman a few days since, he says: "After reading the article by G. M. Doolittle, 'Production of Wax' page 166; that by W. Z. Hutchinson on 'Empty frames, combs or foundation,' page 249; and what Allen Pringle says against 'Dividing' page 266, I wish very much that you would reproduce the article on 'Increase' in the *American Apiculturist*, May, 1884, by L. Stachelhausen, of Selina, Texas. It is one of the best articles I ever saw on the subject." We have pleasure in acceding to friend C's request:

"A very important part of the management of the apiary is the increase of the colonies, and on this point the most prominent apiarists are by no means of the same opinion. The very question, if the number of colonies is to be increased, in order to get the greatest possible quantity of honey, is met with more or less conflicting answers. Neither is there any harmony concerning the point, whether natural or artificial increase is preferable; and it is even controverted, whether the increase should be attempted before, during, or after, the height of the season.

Generally, the rule is adopted, that 'one strong colony, if not allowed to swarm, will gather more honey than the same colony and its increase would gather, if a swarm were allowed to issue.' But this will only prove true, in cases where the honey flow is short and early without any fall harvest. The contrary will take place, whenever the main honey flow is an extensive one, and followed by a fall harvest. We may see this confirmed by many reports which are made by beginners, of good honey harvests, together with a strong increase, and these results become considerably larger, when we can reduce at the right time in the fall, by uniting the colonies to the normal figure. Concerning this question, every apiarist ought to consider what Demaree says in this Journal: 'Each apiarist must study and fully understand his location and work square up to its requirements, if he would obtain the best results.'

Lately, several prominent American apiarists have declared in favor of natural increase, in spite of several well-known disadvantages, from which artificial increase is free. Some are not even afraid to clip the wings of the queens, in order to facilitate hiving the swarms, although other disadvantages are produced thereby. To this they are certainly led by many reasons, as for instance, by the observation that a swarm, placed in a hive provided only with starters, builds not only a number of beautiful worker combs, but commonly surpasses an equally strong but artificially formed colony, to which brood-frames and empty combs have been given. What may be the cause of this? We answer; since a natural swarm builds almost exclusively worker combs at first, they may be allowed to build whole combs. The building instinct being satisfied and the colony being obliged to form cells for brood and honey as rapidly as possible, the energy of the bee is unusually aroused, and this continues for some time during the main honey-harvest. Such colonies therefore surpass very often not only an artificially formed colony, but sometimes even a colony which was prevented from swarming.

If we consider this well when forming artificial colonies we shall be able to get the advantages of both methods without their disadvantages. I know of three methods of forming artificial colonies which meet the above mentioned conditions, and which are, to my knowledge, but little known and little or never applied in this country.

1. **Brushed swarms.** This method of forming colonies was first established by friend Gravenhorst, and the method is as follows: at any place of the apiary, but not too near the old colony, place an empty hive provided with seven or eight Langstroth frames (containing exclusively starters) and a division board, which separates the space occupied by these frames.

the hive containing the old colony is opened and all its frames together with the bees are put in comb baskets. In this proceeding we must be very cautious, in order that the bees may fill themselves sufficiently with honey. If many bees have remained in the otherwise empty hive or box, we must brush them out of it into the new hive and place the old hive forthwith back to its old stand. Then all the bees are brushed from the frames into the new box, without minding the queen, and the brushed-off combs are replaced in the old hive. It is well to sprinkle the bees thus brushed off, with some sugar water, whereupon both hives are closed. The whole thing may be done in a few minutes. A great part indeed of the brushed-off bees will return to the old hive; they ought to be given a

young queen forthwith on the second or third day, and they will be reinforced by runaway bees in a short time. However, a great part of the bees will remain with the queen of the new hive especially all the young bees. Shortly the new colony will become lively with the bees flying to and fro. Such colonies are easily and rapidly formed and if no mistake be made, they surpass natural swarms not unfrequently. I tried about twenty different methods to form artificial colonies in my long practice as apiarist, and according to my experience I hold this method to be in most cases the best one.

2. **Alighted swarms.** These are established in the well-known way, by placing an empty hive which is provided merely with starters, before a strong colony. We must give, however, the new hive at first for the beginning, *one* brood frame, where the queen is imprisoned, in order to make it easy for the bees to cluster on. A young impregnated queen will do; but it is better, to take the queen of the old colony for the swarm, and if this queen should be found on a frame with a brood issuing, this frame with the adhering bees must be given immediately to the new swarm without imprisoning the queen, and the old colony must be re-queened in some other way. This brood-frame must be taken away from the colony the next day, and the bees brushed from it back into the hive, in order to establish the latter completely in the state of a swarm.

Such artificial swarms consist now exclusively of worker bees, which are but little apt to take care of the later issuing brood. To remedy this evil, we must brush, immediately in establishing the swarm, some young bees from some brood-frames into the hive.

The old colony is now in a less favorable condition; it is deprived of all carrying worker bees and must be fed so that the young brood shall not suffer. But even then it takes always several days, before any bees fly out again to gather food.

In order to avoid this evil, Mr. Gravenhorst gives all the frames together with bees to another hive, which has just furnished a brushed swarm, *i. e.*, we unite the two old colonies and obtain thereby a very strong colony, which will yield one or more after-swarms. If we intend to prevent after-swarms, we must add, on the eighth or ninth day, an impregnated queen in the cage, and form with her an alighted swarm the next day; at the same time we must cut out all queen cells except one. These last alighted swarms consist almost exclusively of young bees and build the most beautiful worker combs. The old hive has no longer any unsealed brood, and does not suffer therefore by this displacement.

3. Gathered swarms. The establishing of these gathered swarms is very complicated, because they must be transported to a point two miles or at least one mile distant; we can recommend them, however, when some colonies become so strong, that they can be prevented from swarming only by taking away a number of bees. A queen in the cage is put in an airy transportation box, and so many bees must be brushed into the same from the different colonies, that the swarm is strong enough, and the box is carried to the new place. In the evening the swarm is put in its future hive, and the cage is loosely closed with wax, leaving it to the bees to liberate the queen. Of course, such a swarm consists likewise only of starters.

The establishing of such swarms is more particularly described in "Gravenhorst's Praktischer Imker."

In the preceding remarks I called the attention to the point, that such swarms should be furnished with neither empty combs nor foundation. It would not be economical to do so, and it is a mistake to believe that we assist a swarm by giving it a completely finished hive. The swarms ought to be formed by no means later than two weeks before the main season of gathering honey by the bees begins. If, however, this season has already commenced, we may make an exception from the above rule and give the swarm empty combs which are about half finished. Afterwards, when the swarms have completed the few combs given to them and they begin to build cells for drones, we must give them foundation. Now we may give the swarms empty brood-frames, which perhaps ought to be removed from other hives, to considerable advantage, in order to enlarge their brood-nest, whereby they are not only reinforced but likewise prevented from swarming again.

I must mention here that we have gone too far in preventing bees from comb-building. In every season, in which the bees are able to build at all, it will stimulate their industrious energy very much, when they are allowed to satisfy this impulse in the brood-chamber. Whenever it be advised not to permit them to build in order to prevent the building of cells for the drones, let the bees finish at least the foundation; this applies especially to spring-time, and nobody will repent of having paid attention to these indeed very condensed hints.'

Selma, Texas, Feb. 28th, 1884.

BEES IN GOOD SHAPE.

Bees arrived all right and I am well satisfied.

Mrs. S. J. GILLESPIE.

Orangeville, Ont., June 3, 1886.

From Gleanings.

"GETTING BEES OUT OF SECTIONS."

I HAVE quoted the above heading from brother Miller's article on page 475. I think I am safe in saying that we all thank friend M: for shedding more light upon this practical subject; but, after reading his article, I felt as though I could add a little more brilliancy to the torch before I passed it along.

First, let me say, that, years ago, I tried the doctor's plan of opening several hives at a time, in order to facilitate matters when driving the bees down with smoke. When they were at all inclined to rob we blew the smoke through a wire-cloth frame laid over the top of each of the supers, opened. We didn't like the plan, and abandoned it. The one which I will now describe, and which is more briefly described on pages 80 and 81 in my book, suits me the best of any method I have ever heard of.

You know we use a one-story case holding 42 sections, open top and bottom, all cases being interchangeable, and used on the tiering up plan, as described on page 80 of the book above referred to. By the above system the most finished cases are always on top; and when we find one ready to come off, we remove the cover, and quickly and sharply puff smoke into all the ranges between the combs. With our mouth we now energetically blow between all the ranges, and we do both as quickly as we can write these words. No bee is hardly allowed time to commence to fill his sack. More than four-fifths of the bees immediately descend out of the case. We now quickly lift it, cover the hive, and, holding it over the alighting-board, shake it with a jerking, tremulous motion,—a motion that, above all others, will dislodge the foothold of bees—and I think I am safe in saying that not over 50 or 100 bees remain. We now carry the case to our screen-house, which is described in our book on pages 56 and 65. Here the cases are stood on end, standing on each other when lack of room requires; and as the light passes readily through these shallow ranges from either side, the bees leave the cases in a few moments, when the screen-house doors are opened and all the bees are ejected into the open air in an instant. All this is done with such dispatch that the robbers cannot get the first taste, even during times of honey-dearth, when most persistent.

We have found the above method as speedy and practical in the apiary as it looks on paper. It has given us great satisfaction, and we can't imagine how the method can be excelled. Of course, it would not work well with two-story supers, or close-top sections; but we do not lament this fact, because there are so many other

reasons why we could not be induced to use either.

Relative to this subject, I wish to mention a principle among bees, not mentioned among others, and, I believe, not usually recognized. Ancient authorities have told us that smoke, or anything else that frightens bees, saves us from being stung, because, when frightened, they fill themselves with honey, and, when so filled, neither desire to nor can they sting. Now, I have found that the *fright* they receive is what prevents their stinging. I mean "fright" direct, no matter whether they fill themselves or not. With smoke, I have perfectly subdued very angry swarms while clustered upon a branch or fence-rail.

JAMES HEDDON.

Dowagiac, Mich., June 18, 1886.

FOR THE CANADIAN BEE JOURNAL.

MARKET FOR HONEY.

HONEY is classed amongst the luxuries and does not, like staple articles, command a market. It thus becomes a matter of consideration to find a market for our surplus honey. Manitoba and the North West already furnish our Ontario farmers a market for horses and cattle. The Canadian Pacific Railway having been completed to the Pacific coast, a greater demand has arisen for the well-bred cattle raised in Western Canada as well as for horses. Ontario has supplied both these cattle and horses much to the advantage of Ontario. Now for honey. Winnipeg, a city of about 20,000 inhabitants, does not yet supply honey of its own production, but imports it from the United States. The Canadian Government imposes a duty of 3 cents per lb. on foreign honey coming into Canada, and thus have a protection to that amount on each pound of honey. The writer was lately in Winnipeg and found sage honey there from California on sale at 25 cts. per lb. in sections. This sage honey is not as good as our white honey, either clover, basswood or thistle. Why can we not supply our own market especially as we are protected by 3 cts. per lb.? If we send honey to the United States we are met there by a much heavier duty than we impose upon honey coming from their country. We have not been wholly neglectful of our right, for Mr. Hall, of Woodstock, sent them last year some excellent white clover honey, in section frames, every pound of which was sold. This is an excellent year and our surplus will be large, and this market in Winnipeg, Brandon, Portage La Prairie, Qu'Appelle and other western cities, is ours to supply. Why cannot Ontario supply these markets? If we allow the Americans to take that market away from us

it is our own fault. They have to pay 3 cts. per pound for selling in our market and we go to the places mentioned free. Their distance is greater than ours. Their honey is inferior to ours. We must not confess their energy is greater. With all these advantages, supply your own market in Manitoba and the North-west, or acknowledge your personal inferiority.

COM.

PREMIUM LIST.

ST. JOSEPH, MO., EXPOSITION.

THE eighth annual exhibition of the above society will be held, commencing the 30th August and continuing six days. The "Bees" Department premium list is as follows:

BEES.

- | | | |
|----|--|---------|
| 1 | Best colony of Italian bees..... | \$10 00 |
| | 2d premium..... | 5 00 |
| 2 | Best colony of Carniolan bees..... | 10 00 |
| | 2d premium..... | 5 00 |
| 3 | Best colony of Syrian bees..... | 10 00 |
| | 2d premium..... | 5 00 |
| 4 | Best display of Imported Queens in cages, with pedigree..... | 10 00 |
| | 2d premium..... | 5 00 |
| 5 | Best display of Queens reared by exhibitor, and with progeny..... | 10 00 |
| | 2d premium..... | 5 00 |
| 6 | Best display of the general conduct and habits of a colony of bees in an observatory hive, without manipulation..... | 10 00 |
| | 2d premium..... | 5 00 |
| 7 | Best and largest display of honey in comb, not less than 100 lbs.... | 20 00 |
| | 2d premium..... | 10 00 |
| 8 | Best and largest display of extracted honey, not less than 100 lbs.... | 20 00 |
| | 2d premium..... | 10 00 |
| 9 | Best display of honey in fancy forms.. | 8 00 |
| | 2d premium..... | 4 00 |
| 10 | Best display of beeswax..... | 2 00 |
| | 2d premium..... | 1 00 |
| 11 | Best display of honey producing plants including stalks, flowers and seeds, all labelled with name.... | 5 00 |
| | 2d premium..... | 3 00 |
| 12 | Best cake made with honey..... | 2 00 |
| | 2d premium..... | 1 00 |
| 13 | Best comb foundation machine, to be operated on the ground..... | 10 00 |
| | 2d premium..... | 5 00 |
| 14 | Best honey extractor..... | 3 00 |
| | 2d premium..... | 2 00 |
| 15 | Best wax extractor..... | 2 00 |
| | 2d premium..... | 1 00 |
| 16 | Best bee smoker..... | Diploma |
| 17 | Best section box for comb honey.... | Diploma |
| 18 | Best comb foundation..... | Diploma |
| 19 | Best bee veil..... | Diploma |
| 20 | Best honey knife..... | Diploma |
| 21 | Best keg for extracted honey..... | Diploma |
| 22 | Best bee feeder..... | Diploma |
| 23 | Best Queen cage..... | Diploma |
| 24 | Best drone trap..... | Diploma |

25 Best display of apicultural literature..	5 00
2d premium.....	3 00
26 Best all purpose hive.....	10 00
2d premium.....	5 00
27 Largest and most complete general display of apicultural implements..	10 00
2d premium.....	5 00
28 Finest and best crate of comb honey not less than 20 lbs.....	10 00
2d premium.....	5 00
29 Best and finest 20 lbs. of extracted honey.....	10 00
2d premium.....	5 00

TORONTO INDUSTRIAL.

From the prize list of the above exhibition (to be held Sept. 6th to 18th) we extract the following as being of interest to our readers:—

Entrance Fee, 25 cents each entry—Open to all Bee-keepers.

SEC.	1st.	2nd.	3rd.
1 Best display of extracted granulated honey, in glass, not less than 500 lbs.....	\$20	\$12	\$8
2 Best display of liquid extracted honey, not less than 1,000 lbs., of which not less than 500 lbs. must be in glass.....	15	10	6
3 Best display of comb honey in sections, not less than 500 lbs.	15	10	6
4 Best beeswax, not less than 10 lbs.....	3	2	1
5 Best mode of marketing extracted honey.....	3	2	—
6 Best mode of marketing comb honey.....	3	2	—
7 Best comb foundation for brood chamber.....	3	2	—
8 Best comb foundation for sections.....	3	2	—
9 Best mode of securing the largest yield of comb honey.....	3	2	—
10 Best mode of securing the largest yield of best ex'cted honey	3	2	—
11 Best and largest display of apiarian supplies.....			
	Silver Medal	Bronze Medal	
12 Best style and assortment of tin for retailing extracted honey...		Bronze Medal	
13 Best style and assortm't of glass for retailing extracted honey...		Bronze Medal	
14 Best section crate for top story and system of manipulating..	3	2	—
15 Best and most practical and new invention for the Apiarist....	3	2	—
16 Honey plants, collection of....	3	2	—
17 Best hive Italian bees.....	3	2	—
18 Best hive Carniolan bees.....	3	2	—
19 Best assortment of fruit preserved in honey, not less than 5 bottles.....	5	3	2
20 Best cake or pastry made with honey.....	3	2	1
21 Best honey vinegar, not less than 1 quart.....	3	2	1
Open only to Bee-keepers who have not had over 25 colonies during the season of 1886 :			
SEC.	1st.	2nd.	3rd.
22 Best 10 lbs. of Linden extracted granulated honey, in glass....	\$2	\$1	\$0 50

23 Best 10 lbs. Linden extracted liquid honey, in glass.....	2	1	50
24 Best 10 lbs. thistle granulated honey, in glass.....	2	1	50
25 Best 10 lbs. thistle extracted liquid honey, in glass.....	2	1	50
26 Best 10 lbs. clover extracted granulated honey, in glass....	2	1	50
27 Best 10 lbs. clover extracted liquid honey, in glass.....	2	1	50
28 Best 10 lbs. comb honey in sections.....	3	2	1 00

AT THE PROVINCIAL.

Which is held at Guelph this year, Sept. 20th to 25th, the subjoined prizes are offered :

1. The best display of extracted honey in marketable condition.....	\$10 00
2d do	5 00
2. The best display of honey in the comb and in marketable condition.....	10 00
2d do	5 00
3. Honey in the comb, not less than 10 lbs	8 00
2d do	6 00
3d do	4 00
4. Jar of extracted honey.....	4 00
2d do	2 00
3d do	1 00
5. Beeswax, not less than 10 lbs.....	3 00
2d do	2 00
6. Bee hive.....	3 00
2d do	2 00
3d do	1 00
7. Best wax extractor.....	Diploma
8. Best honey extractor.....	Diploma
9. Best and largest display of apiarian supplies.....	Silver Medal
2d do	4 00

QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked of, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

UNPACKING IN SPRING.

QUERY No. 91.—When wintering on summer stands, at what time would you remove the chaff and outer case for the summer, or do you leave outer case on all summer with or without packing? In opening it in spring do you remove packing to give clean brood nest and then repack, or wait until you remove packing for the season?

M. EMIGH, HOLBROOK, ONT.—I don't winter on summer stands.

DR. C. C. MILLER, MARENGO, ILL.—I winter altogether in cellar.

JUDGE ANDREWS, MCKENNY, TEXAS.—I am as ignorant as a last spring gosling.

DR. A. B. MASON, WAGON WORKS, O.—I can't afford to winter on summer stands.

DR. J. C. THOM, STREETSVILLE, ONT.—I have no experience worth speaking of in out-door packing of hives, for winter.

PROF. A. J. COOK, LANSING, MICH.—Clean out early on a warm day. Remove outer case not till honey season comes, unless in the way.

G. M. DOOLITTLE, BORODINO, N.Y.—Packing is only removed to give place for sections. Colonies not requiring a surplus arrangement are never unpacked.

H. D. CUTTING, CLINTON, MICH.—I wait until it is settled warm weather before I remove the outer case and packing. In spring clean off the bottom with a steel wire scraper from the entrance.

S. CORNEIL, LINDSAY, ONT.—I remove the packing after fruit bloom and leave the outside case for shade. One of the disadvantages of my standing, closed-end, Quinby frame is that, to examine the brood-nest early in the season, the packing must be removed.

G. W. DEMAREE, CHRISTIANSBURG, KY.—I do not use packing at the sides at all. Sunshine is essential to our bees in the early spring, and side packing deprives the bees of this. Those beekeepers living in localities similar to yours will be better prepared to answer your question.

DR. DUNCAN, EMBRO, ONT.—I would prefer changing the comb and bees into a single wall hive as soon as the weather gets warm, because it is easier to put on supers or change stands if required. In spring I change them out of one hive into another clean one same as one they were in.

ALLEN PRINGLE, SELBY, ONT.—Have not had much experience in packing with chaff and outer case, but I should clean out the hive in the early spring and then fix them up warm again till the warm, settled weather comes to stay in June. Have left winter quilts on colonies as late as the 15th to 20th of June.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—I would not advise removing either outer case or packing, summer or winter, if it can be avoided. I want a clean brood-nest as early in the spring as possible, but do not permanently remove packing. I manage this matter by using chaff cushions at the sides of the brood-combs instead of loose chaff.

J. E. POND, FOXBORO, MASS.—In early spring as soon as it is warm enough to make an examination with safety, I remove outer cases, in order that the bees get the full benefit of the

warm sun. The experience of the last winter however, has been such, that I am not so strong an advocate of chaff hives, or winter packing, as I was formerly. I believe the sun should be allowed free access to the hives, as soon as the bees can fly out safely.

BY THE EDITOR.—We would remove it as soon as honey appeared in the flowers, say about fruit bloom. We only remove packing from top of hive for examination, then cover up and leave them capped until fruit bloom.

SECTION FOUNDATION STARTERS.

QUERY No. 92.—Have you tried starters at top, bottom and ends of frames, and if so with what success?

M. EMIGH, HOLBROOK, ONT.—Never tried them.

DR. C. C. MILLER, MARENGO, ILL.—I use full sheets.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—No, have not tried them.

DR. A. B. MASON, WAGON WORKS, O.—I use full sheets of foundation.

DR. DUNCAN, EMBRO, ONT.—No, I have not, I don't think it would answer.

PROF. A. J. COOK, LANSING, MICH.—At top, and full, and like the practice much.

ALLEN PRINGLE, SELBY, ONT.—Never tried that. I think it pays to give full sheets of foundation.

G. M. DOOLITTLE, BORODINO, N.Y.—No. Fill frame full of foundation or use starter only on top is my plan.

JUDGE ANDREWS, MCKENNY, TEXAS.—I have, with good success, but this costs too much labor for the average Texan.

DR. J. C. THOM, STREETSVILLE, ONT.—Starters along the top of the frames is all that I use, have never tried bottom or ends.

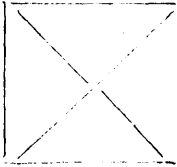
H. D. CUTTING, CLINTON, MICH.—If you mean brood frames, have used only full sheets of foundation, also half sheets fastened to the top bar.

S. CORNEIL, LINDSAY, ONT.—I have only tried them heretofore at the top, but on the recommendation of Dr. Tinker I have put in a quarter inch strip at the bottom this year.

J. E. POND, FOXBORO, MASS.—I have never tried such starters to any extent. The slight experiments I have made with them have shown

them to be far inferior to starters at top only, and of course very far inferior to full sheets of foundation. I consider foundation about 7 or 8 feet to the pound, about the correct weight for brood frames.

G. W. DEMAREE, CHRISTIANBURG KY.—I have tried starters in nearly every fashion and I prefer to have them at the top and nowhere else I have been experimenting this season with starters in sections, and a starter cut thus,



using one-fourth of the full size to each section, attaching it to the top of the section, has given the best of satisfaction.

By THE EDITOR.—Have tried it but do not consider it a success; bees cannot build backwards properly.

THE HOFFMAN FRAME.

QUERY No. 93.—Have you ever used the Hoffman frames which have shoulders on ends of top bar and same on upper part of end bar which space them $1\frac{3}{8}$ inches from centre to centre. If so, have you found any trouble in getting brood clear up to top bar or in keeping combs the thickness of brood combs?

M. EMIGH, HOLBROOK, ONT.—Never used them.

G. M. DOOLITTLE, BORODINO, N. Y.—Never used them.

DR. C. C. MILLER, MARENGO, ILL. Have never tried them.

DR. A. B. MASON, WAGON WORKS, O.—Never used the frames.

ALLEN PRINGLE SELBY, ONT.—I never used the Hoffman frames.

JUDGE ANDREWS, MCKINNEY, COLLIN CO. TEXAS.—I have never used them.

H. D. CUTTING, CLINTON, MICH.—I have never used a frame by that name.

PROF. A. J. COOK, LANSING, MICH.—Have used such frames but do not like them. Yet saw no trouble about brood.

DR. DUNCAN, EMBRO, ONT.—I have never used Hoffman frames, those I have answer every purpose. They are same size as Langstroth, only 1 inch deeper; if you have a good queen, you will get all the brood you want, and sometimes more.

S. CORNELL, LINDSAY, ONT.—My frames have shoulders on the end bars all the way down, which space them $1\frac{1}{2}$ in. from centre to centre. I have not observed any difference between them and the ordinary frame with respect to the matters mentioned.

J. E. POND, FOXBORO, MASS.—I have never used the Hoffman frames at all, and for the reason that I do not want any frames that are not wholly interchangeable, and this cannot be the case where any device is used that keeps them spaced at regular distances apart.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—Have never used the Hoffman frames, but do use frames that are kept $1\frac{3}{8}$ inches from centre to centre. Have no particular trouble in keeping combs the proper thickness, but whether they are filled full of brood or not, depends on many other conditions than condition of combs.

DR. J. C. THOM, STREETSVILLE, ONT.—Some years ago I used the King hive which has a similar frame, had no trouble then with having brood comb of the usual thickness. Do not now remember as to brooding but I presume it will depend more on what sort of a queen is in the hive and how it has been handled, whether you have brood crowding top bars or not.

G. W. DEMAREE, CHRISTIANBURG, KY.—I never used the frame you refer to, and would not use it. The frames being $1\frac{3}{8}$ in. apart from centre to centre I cannot see why they would not work well enough. Well, right here, I really do not care to have brood "clear up to the top bar" unless I am using a very shallow frame. A strip of honey next to the top bar in the Standard L. frame is not in my way when producing comb honey.

By THE EDITOR.—Tried them years ago but discarded them. To some doubtless they might be satisfactory.

SUNDRY SELECTIONS.

M. J. LEWIS.—I send you a sample of the honey that my bees have lately been gathering. I never saw any like it before, and never want to again, unless the bees are very hard up. Did you ever see any like it? What kind of flowers do you think it is gathered from, or is it honeydew, and if so what is best to be done with it? Is it fit to use, if flavor is not objectionable?

Central Onslow, N. S., June 26th, 1886.

The sample received is, we decide, honeydew, and we would recommend that you extract it all from the combs and feed it back to nuclei, or to such colonies as need it for brooding. Do not use it for winter stores.

BEES NOT SWARMING.

ALEX. MURCHIE.—I have two colonies in the "Thomas" hive, and as yet they have not swarmed. I see no drones. Is that the cause? If not, what is it? I have honey boxes on and the bees are working well, and are strong. The frames are fast so that I cannot examine them. Please favor me with your advice.

Winthrop, July 1, 1886.

We would advise you to take all the box honey you can for this season, and then transfer them next spring to a movable frame hive that you can handle.

FOUNDATION STRETCHING.

J. O. FACEY.—I send you a sample of foundation, part of which is worked out and part as it comes from the mill. What is the cause of its stretching so bad? Is the wax pure or is the foundation too thin? The wax I got from some dealers in New York State. It was to be "select yellow."

Tavistock, Ont., July 1, '86.

The foundation appears to be about the right thickness. We should judge by its appearance after being worked out, that there was ceracin or paraffin mixed with the wax. We have tried to get the bees to work out different kinds of ceracin and paraffin but thus far have not succeeded. While experimenting with the ceracin or paraffin, the combs were frequently drawn out, similar to the sample you sent us. We would suggest testing its melting properties by putting two lamps under two dishes of water, placing a thermometer in each dish, and keeping the temperature of the water the same. In one dish put the suspicious wax and in the other something you know to be pure. You will then see at what temperature this peculiar looking foundation melts. We think you will find that it will stand 130°, probably less, while the pure beeswax will require a much higher degree of heat to melt it. We think it must be some mistake on the part of the clerks' shipping as we never heard any complaints against the firm mentioned, and we consider them reliable. We have not found it necessary to import any wax this season, as the Canadian production has supplied all our wants. This year greasy wax has been our only trouble in the way of adulteration. Two years ago we received several barrels of presumably nice wax from an Eastern buyer and on examination nearly the whole lot turned out to be ceracin, with a few odd cakes of the genuine thing thrown in to give it variety. To the casual observer it was as fine a shipment of beeswax as you could possibly wish to have. Needless to say, we returned it all.

A REMARKABLE YOUNG QUEEN.

JESSE NEFF, JR.—A few days ago I met with a very singular occurrence. About three weeks

ago I examined one of my queen-rearing colonies and found, as I supposed, a first class queen just hatched. She appeared to be doing all right, so I left her in the hive and thought no more about the matter until a few days ago. While I was going over my hives I came to the one containing the queen referred to. I expected to find the brood already capped, but instead of that I was astonished to find not one egg in the whole hive. The queen was in the hive all right and could fly well, but it could easily be seen that she was smaller than when first hatched, where she should have been full size and laying freely. I had had some queens that could not fly, but turned out drone layers. The age of the queen at this date is something over twenty-two days and she has not as yet laid a single egg. I was going to stop, but I have a little more to say and I will attempt to describe to you another strange feature about queens. On going over a hive this afternoon, out of which several swarms had issued, I found three queen cells just hatching, so I cut the capping and liberated two of them. The third one was a fine large cell so I raised the capping and out came a small worker bee. It immediately put up its wings and commenced buzzing as if satisfied with her new home. I could not see the slightest difference between it and the ordinary workers. It must have turned around in the cell, for when I cut the capping it came out backwards. I never saw anything similar to this so I would be glad to receive any information in regard to this matter.

Arkona, June 30th, 1886.

We recollect once having a queen twenty-six or twenty-eight days before she mated. There is no question about this, as the queen was hatched and caged; the day she was hatched she was forwarded, with a lot of others caged, up to our islands in the Georgian Bay, and was there introduced to a queenless nuclei. There were no eggs or brood in it and she remained unfertile the above length of time, having been carefully watched every day. Afterward she became a good laying queen. We usually destroy them after fifteen days if not fertile. It is not unfrequently the case after a queen hatches out of a cell a worker bee crawls in. The capping not being cut off all the way around it forms a hinge or door which often is closed, the bees fastening it down. We have found bees imprisoned in queen cells, that to a casual observer might appear to have been bred in the cell. We have also known worker bees to be hatched in queen cells. This we supposed was caused by their attempting to raise a queen from larvae which was too old.

THE HEDDON HIVE.

R. KENNEDY.—Will you kindly tell me through the columns of the C. B. JOURNAL how to arrange

the Heddon hive for wintering :

(1) Do you leave the two brood boxes on their cover or winter with one ?

We have never wintered in the Heddon hive. Shall try them this winter in various ways. If colony is strong enough would leave it on both brood chambers, but if weaker would leave the top one which will contain most honey.

(2) Is the swarm when first introduced left with one brood chamber for a few days then the honey board and one box of supers, or the two brood chambers at once ?

We always use two brood chambers when hiving a colony, as one would be too small, and might cause the swarm to leave.

(3) When Mr. Heddon says, speaking of the stand, "the hive will fit either end to and you will have earth ventilation behind," does it mean to slip hive back in hot weather so brood box will be open at bottom board for this purpose ?

By slipping the hive back from front of bottom board slightly, you get ventilation in behind as well as in front, and assist thus in keeping the bees cool.

(4) How soon after swarming should supers either for extracting or comb honey be put on new swarm if they are supplied with six or eight full combs in the rack or full sheets of foundation in July or June ?

As soon as the swarm is hived and they commence to cluster on their combs or foundation, as the case may be, you may then put on your sections or surplus arrangements.

(5) What part of the Heddon hive is it he calls the *filler* and says it is a necessary thing for each hive ?

We sent you a hive complete, an exact duplicate of the one from Mr. Heddon.

(6) Is the drone catcher a good thing and will it keep off the unwelcome visitors when a certain strain of bees are wanted to be kept pure or is the "catcher" a catch.

Bethany, June 28, 1886.

You may suppress all the drones by the use of our perforated metal, arranged in any way suitable. The bee guard answers every purpose and is to be had at a trifling cost. It is not a "catch" but is indispensable in an apiary.

CONVENTION NOTICES.

MICHIGAN STATE BEE-KEEPERS' ASSOCIATION—The next annual convention of this association will be held in Ypsilanti, Mich., Dec. 1st and 2nd, 1886. H. D. CUTTING, Sec., Clinton, Mich.

The St. Joseph (Mo.) Inter-State Bee-keepers' Association will hold its annual meeting on Wednesday evening, Aug. , 1886. Program later. E. T. ABBOTT, Sec., St. Jos. (Mo.)

North American, at Indianapolis, Ind., Oct. 12, 13 and 14. F. L. DOUGHERTY, Sec. Indianapolis, Ind.

THE CANADIAN BEE JOURNAL

JONES, MACPHERSON, & Co.,

EDITORS AND PUBLISHERS,

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, JULY 14TH, 1886.

Secretaries of County Associations will confer a favor by notifying us as long before hand as possible of the place, date and hour of their meetings.

We have already sold several gross of the glass jars mentioned on page 275 of the JOURNAL. We did not mention before that the tops were heavily tinned, so that no corroding and spoiling of honey can take place.

When we tell you that our presses are still running over time you will be able to imagine the amount of work we are doing. This is the reason why our honey-label circular is not forthcoming. We have it about half completed and will make an honest effort to have it ready in a week or two—so that it may be of some service for this season's crop.

We have every order filled to date in the way of regular goods. Two or three orders for goods for the colonial are being gotten out in the factory, and several others for special sizes of goods. Do not think, however, that we are not busy. We have every available hand around the village employed, and busy at work making up stock, to enable us to keep on making prompt shipments.

That the Bee Keepers' "Union" is in itself a mountain of strength to the bee keepers of the United States is a fact beyond dispute. The postal laws were so construed during the past month that a few bees were not permitted to go with the queen by mail, and this meant nothing more or less than that the traffic in "queens by mail" was put an end to. Thanks to the "Union" and the efforts of one or two influential gentlemen outside, the barrier has now been removed, and the necessary attendants allowed transmission along with the queen.

NEW CASE FOR THE 60 LB. TIN.

We have just decided on a new style of case for holding the sixty lb. can—as our old one was not as neat and handy as it was our desire to have it. We made them of heavy stuff, generally seven-eighths of an inch, that is two sides and the bottom, the other two sides and the top being three-eighths inch. In the new case we do not use any lumber more than three-eighths in. and for ordinary purpose one-fourth in. will answer just as well. The case for the Colonial

Exhibition will be made of the heavier material. We are having an engraving of the tin and packagemade, and will present it to our readers in a future issue.

OUR 60 POUND TINS.

During the past ten days we have shipped out over one thousand of these tins, and this we should take as indicative of a pretty good season all over the country. Then we have sold thousands of ten, five, two-and-a-half and one pound cans as well. The 60 lb. can is being adopted largely all over the country. In California they are putting their extracted honey up in that size package. We have placed the prices as follows: each 50 cents; per 10, \$4.80; per 25, \$11.25; per 100, \$42.00. These prices include a light but strong wooden case, of planed lumber, for shipping purposes, and, by the way, each tin has a double screw-top—a large and a small one,—the former for taking out the honey when granulated, and in suitable quantities as desired, and the latter for pouring it out when in a liquid state.

QUEENS TO CANADA.

Friend Doolittle writes us that he received the parcel we sent him all right, and without detention. Since then we have received from I. R. Good, Napanee—a parcel on which was paid 10 cents. It does not seem to have gone through the "Inquiry office" either. The Hon. John Jameson has, in a letter to the Hon. Edwin Willits of Lansing, Mich., voiced again our sentiments as expressed on page 275. We could not understand why the U. S. postal officials should wish to do the duty of Canadian officials in the matter of refusing to allow the queens to come into Canada by mail. We copy from the A. B. J.

HON. EDWIN WILLITS:

Sir—In regard to forwarding queen-bees to Canada, this office, of course, has nothing to do. I see no objection to the postmaster at the mailing office receiving them for such dispatch, and if the Canadian authorities see fit to receive them, this office certainly has no objection. This question has been referred to the Superintendent of foreign Mails.

JNO. JAMESON, *Gen. Supt.*

The probabilities are, therefore, that queens will again be allowed to pass the lines, unless hindered by the Canadian postal authorities, which is, we think, not likely; at least when they do raise any objection, we shall bring such influence to bear as will, we hope, set the matter right.

A GOOD INVESTMENT.

Have found the money spent for advts. through your columns a good investment.

A. E. WOODWARD.

Groom's Corners, N. Y.

HONEY MARKET.

CINCINNATI.

Demand for extracted honey has been very slow of late, but seems to be improving gradually for manufacturing purposes. There is much honey in the hands of Com. Merchant and prices are very low, $3\frac{1}{2}$ to 7c. per pound is the range of prices on arrival. Prices for comb honey are nominal. Arrivals of beeswax are good and demand is fair. We pay 18 to 22 cents per pound on arrival for fair to choice yellow.

CHAS. F. MUTH & SON.

BOSTON.

Honey is selling very well but prices are very low, and we are often obliged to shade our prices in order to make rates. We quote 1 lb. comb, 14 to 16 cents. 2 lb. comb, 12 to 14 cents. Extracted, 6 to 8 cents.

BLAKE & RIPLEY.

DETROIT HONEY MARKET.

No comb honey in the market. Beeswax scarce at 25 cents.

M. H. HUNT.

Bell Branch.

NEW YORK.

We quote quite an improvement in sales of comb honey the past two weeks, and owing to the lateness of the season prices rule low. In consequence of the low freight rates from San Francisco to New York, many dealers in honey are availing themselves of the rates and shipping extracted honey to this market at prices ranging from $4\frac{1}{2}$ to $5\frac{1}{2}$ cts. per lb. This has already had its effect on stale goods. We quote prices as follows: Fancy white comb honey, 1 lb. sections, 12 and 13 cts. per lb.; fancy white comb honey, 2 lb. sections, 9 and 10 cts. per lb.; fancy buckwheat comb honey, 1 lb. sections, 9 cts. per lb.; fancy buckwheat comb honey, 2 lb. sections, 7 and 8 cts. per lb.; off grades, 1 and 2 cts. per lb. less; extracted white clover honey, 6 and 7 cts. per lb.; extracted buckwheat honey, 5 and $5\frac{1}{2}$ cts. per lb.; extracted California honey, 5 and 6 cents per lb.; extracted Southern, as to color and flavor, 5 and 6 cts.

MCCAUL & HILDRETH BROS.

PRICES CURRENT.

BEESWAX

Beeton, July 14th, 1886
We pay 32c. in cash (30 days) or 35c. in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 25 per cent. on Wax coming into Canada.

FOUNDATION

Brood Foundation, cut to "Jones' size" per pound	52c
" " over 50 lbs.	50c
" " cut to other sizes " "	53c
" " over 50 lbs. " "	51c
Section " in sheets per pound	63c
Section Foundation cut to fit $3\frac{1}{2} \times 4\frac{1}{2}$ and $4\frac{1}{2} \times 4\frac{1}{2}$ per lb.	70c
Brood Foundation, starters, being wide enough for Frames but only, three to ten inches deep	48c

EXCHANGE AND MART.

15 COLONIES of Italian bees for sale. Complete Jones hive; 10 frames with each hive. Good queens. Price \$7. Apply to ERNEST SCHULZ, Sethbridge, Muskoka.

QUEENS for sale. A number of choice untested Italian queens for sale, ready to mail on receipt of one dollar. WM. ATKINSON, Cheapside, Ont.

FOR Bees, Queens, or honey, we will not be undersold. Bees, full colonies, by the pound or nuclei. Queens, tested or untested. Address, I. A. MICHENER, Low Banks, Ont.

ADVERTISEMENTS

J. W. GREEN, ALDERSHOT, P. O.

Manufacturer of Roots', Chaff and Simplicity Hives and Apiarian Supplies. Catalogue free, by sending your name or P. O.

SECTION CARTONS

Or Pasteboard boxes for enclosing honey sections. We sold thousands of them last season and have orders on hand for thousands of the improved for this season.

The improved Cartons are shipped in the flat all ready for the sections; all you have to do is to put on the label.

	Per 500	Per 1000
Price for 1 lb.....	\$4 00	\$7 00
" 2 lb.....	5 00	9 00

Without the tops and bottoms pasted on \$1.00 per thousand less. Sample by mail 5c.

Labels for the Carton 1 lb., \$1.00 per M.; 2 lb., \$1.25 per M 14 oz. Glass Honey Jars \$5.00 per gross, also tin packages of all kinds.

Honey Labels—Best assortment in the U. S.—Send for Catalogue.

Wholesale prices to dealers.

A. O. CRAWFORD,
8. Weymouth, Mass

BEE-KEEPERS' SUPPLIES

Having just completed our Large Factory we are prepared to offer all kinds of Bee-Keepers' Supplies at

BED ROCK PRICES.

WE MANUFACTURE

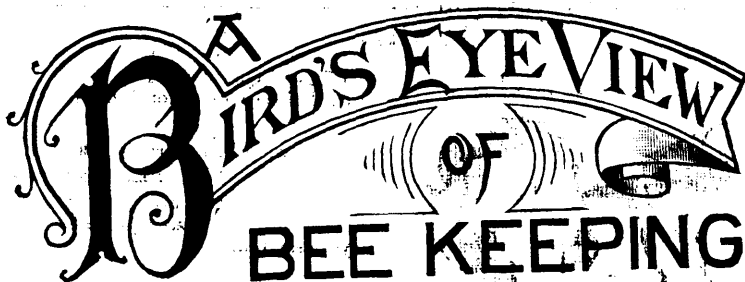
- 5 Styles of Hives
- 6 Styles of Honey Extractors,
- 7 Styles, Foundation Etc.,
- 2 Styles of Smokers
- 2 Styles Wax Extractors, "V" Groove, Section, Etc.

WE GUARANTEE OUR WORK FIRST-CLASS.

Liberal Discount on Large Orders.

Send a Postal Card for our Illustrated Catalogue

ASPINWALL & TREADWELL, BARRYTOWN, N.Y.



—BY—

Wm. J. Clarke

WILL BE READY IN ABOUT THREE WEEKS.

The Price is 25c., five for \$1.

Special terms to the Trade. It is Interesting, Readable and Practical.

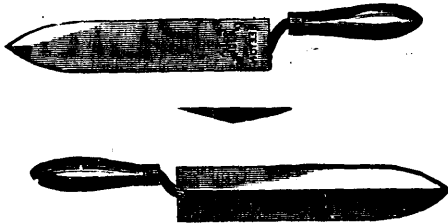
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PUBLISHERS, BEETON, ONTARIO.

RAY'S OF LIGHT.—A new publication devoted to Bee-keeping and Poultry-raising. A number of the leading, most practical and successful Bee and Poultry-Keepers have already been secured as regular contributors. Its principal aim will be to advance progressive ideas upon the various topics of modern scientific Bee-Culture and Poultry-Raising. Subscription, 50 cents a year. Sample copy free.

J. J. MARTIN & CO.,
North Manchester, Indiana.

HONEY KNIVES.

We have just to hand a large shipment of honey knives from the makers, Lockwood Bros. Sheffield, England. These are undoubtedly the finest we have had, and yet, being the most perfect in shape and neatness of manufacture.



These Knives are made of the Finest Razor Steel

- Ebony Polished Handle, mirror polish\$1 35
 - Ebony Polished Handle, glazed polish..... 1 15
 - Wood Polished Handle, glazed polish..... 90
- If by mail, add 10c extra for each knife.

THE D. A. JONES CO., LD., Boston

WHAT EVERYBODY WANTS.

—THE—

CHAMPION EGG TESTER.

PRICE, 50 CENTS.



Use it at home, everywhere. Take it with you in your pocket when buying eggs. Save money and trade. Bad ones are seen at a glance. For incubating purposes they are far superior to anything out—durable, nice form, and will last a long time.

THE CHICK'S HEART can be seen beating through the shell in three days, and dead ones are plainly noticeable. After eggs have been under a hen or incubator for five days, the unfertile ones should be removed. This can be done by using an Egg Tester

We will send one of these Egg Testers free to every person sending us \$1.25, the price of one year's subscription to the "POULTRY MONTHLY," the best magazine of its kind. If you have already paid your subscription, induce one of your neighbors to subscribe, mail us the amount (\$1.25) and we will send you the Egg Tester free of charge for your trouble. Send for Price List of Poultry Supplies. Address

THE POULTRY MONTHLY.
P. O. Box 215, Toronto, Canada.

ITALIAN AND CARNIOLAN QUEENS

By return mail, bred in separate apiaries away from other bees. Warranted Italians or untested Carniolan Queens, in June, \$1.10; 6, \$5.90; July, \$1.6, \$5. State which you prefer, BELLINZONA or GOLDEN ITALIANS. For full particulars and prices of bees, send for circular. Safe arrival and satisfaction guaranteed.

CHAS. D. DUVALL.
Spencerville, Mont. Co.

HOW TO RAISE COMB HONEY.

An illustrated pamphlet, just out, by Oliver Foster, describing improvements in methods resulting from 10 year's practical work and extensive experiment. Price 5 cents. Send also for free circular of Italian bees and queens, bred for honey and for sale. The "Adjustable" Honey Case, and other standard supplies for the apiary. Address

OLIVER FOSTER,
Mt. VERNON, IOWA.

NOW THEN ORDER.

Having determined to devote my time exclusively to the production of

PURE ITALIAN BEES & QUEENS

the coming season, I am enabled to offer the following prices:

- Tested Italian Queens.....\$1 00
- Bees per lb..... 1 00
- One Frame Nuclei with Tested Queen, 1/3 lb.
- Bees and 1 Frame Brood..... 2 00
- 2 Frame Nuclei, 1 lb. Bees & Tested Queen 3 00
- 3 " " 1 1/2 " " " " 4 00
- 4 " " 2 " " " " 5 00
- 1 Tested Queen and 1 lb. Bees..... 2 00
- 50 choice Colonies for Queen rearing for \$10 each.

See what last season's customers say:

PENETANGUISHENE, CANADA.

Queen received all right. She is a noble looking queen and pleases me better than any I have yet received.

HARRY L. LEACH.

The queens are both giving satisfaction.

R. M. TAYLOR,

Port Dover, Can.

Those two queens I got from you are giving excellent satisfaction.

JNO. G. KNIDENGER,

Kilmanagh, Mich.

I am very much pleased with the tested queen I got from you last summer.

J. S. SEELEY,

Sodus Point, N.Y.

and hundreds of others.

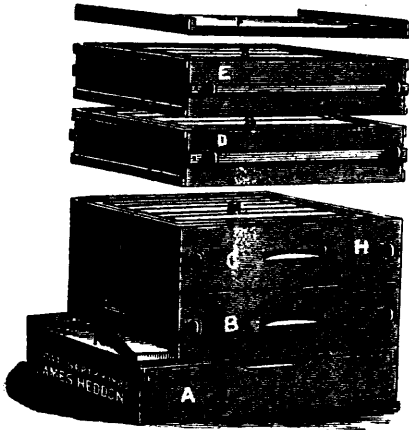
I will commence mailing soon after May 1st and of course first orders are first filled, so order now. Terms cash with order. Safe arrival, and satisfaction guaranteed in every case. Sample of live workers free by mail.

THOS. HORN.

Box 1691, Sherburne, N. Y.

THE NEW HEDDON HIVE.

We have bought out the interest of the inventor in his Canadian patent, and we are in a position to make and sell the Heddon Reversible Hive, got up in any shape to suit the purchaser—either in the flat or nailed.



The engraving gives a good idea of the hive. The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections may be placed between the two brood chambers, or the latter may be transposed or inverted—in fact, all parts of the hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE

includes the bottom board and stand; a slatted honey board; a cover; two 6-inch brood chambers, each containing 8 frames, wired; two surplus arrangements, each containing 28 one-pound sections, both with wide frames and separators, both of which can be interchanged or reversed at will. Price, nailed \$2.90; nailed and painted \$3.25. It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

HIVES READY TO NAIL.

We have arranged several different combinations in these hives, so that our customers may make a selection from the sample hive nailed without waiting for us to quote prices; in ordering ask for the number which you desire, and no mistakes will be made.

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames with holes punched for wiring, and the slatted honey-board, price \$1.25 each.

No. 2 is the same as No. 1, with the addition of one surplus arrangement, containing 28 sections, with separators—interchangeable and reversible. Price \$1.75 each; without sections, \$1.60.

No. 3 is the same as No. 2 with the addition of another surplus arrangement, and sections

and is the same in all particulars as sample hive. Price \$2.30 each; without sections, \$2.00.

Those who wish the hives *without* the stand, or honey-boards, may make the following deductions from above prices: Stands 10 cents; honey-boards 7 cents. For extra brood chambers, with frames in flat, adds 45 cents each; and for extra supers adds 40 cents each. Separators of tin are included in these prices throughout. If separators are not desired, deduct for each super 4 cents.

DISCOUNTS IN QUANTITIES.

For 5 or more hives, 5%; 10 or more, 7½%; 25 or more, 10%; 50 or more, 15% off these prices.

THE D. A. JONES CO., (Ld.)

BEEON ONT.

Beeton Printing & Publishing Co.,

FINE BOOK, JOB, & LABEL PRINTING.

Send for our FREE "Honey Label" circular. Printing furnished promptly, and neatly done. Estimates of "circular" and other work on application.

F. H. MACPHERSON,

3-t.t.

Manager, Beeton, Ont

FRIENDS If you are in any way interested in

BEEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE CULTURE**, with a descriptive price-list of the latest improvements in HIVES, HONEY EXTRACTORS, COMB FOUNDATION, SECTION HONEY BOXES, all books and journals, and everything pertaining to Bee Culture. Nothing Patented. Simply send your address on a postal card, written plainly
A. I. ROOT, Medina Ohio

BEE-KEEPER'S GUIDE,

OR

MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876,

The fourteenth thousand just out. Tenth thousand sold in just four months. More than 50 pages and more than 50 costly illustrations were added in the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-keeping.

Price by mail, \$1.25. Liberal discount made to Dealers and to Clubs.

A. J. Cook, Author and Publisher

State Agricultural College Michigan

W. Z. HUTCHINSON,

ROGERSVILLE, GENESSEE, CO., MICH.

Is rearing Italian Queens for sale again this season, and can furnish them by mail, safe arrival guaranteed, as follows:—Single Queen, \$1; six queens for \$5; twelve or more, 75c. each. Tested Queens \$2 each. Make money orders payable at Flint. Send for price list of bees (full colonies or by the pound.) Given foundation, white popular sections, hives, cases, feeders, etc.

APIARIAN SUPPLIES

MANUFACTURED BY

W. T. Falconer - Jamestown, N. Y.

Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all styles of the **Simplicity Hive**, including the **Van Deusen-Nelli**. The **FALCON**, **Chaff Hive**, with movable upper story, continues to receive the highest recommendations as regards its superior advantages for **wintering** and handling bees at all seasons.

DOVE-TAILED SECTION.

Same price as one-piece. Also manufacturer of **VAN-DERVORT FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**. Send for Illustrated Catalogue for 1886, Free. **Prices always reasonable.** Mention this paper.

I. R. GOOD'S PRICE LIST.

Barnado Rev P

Italian Bees and Queens For 1886.

HAVING again located at **NAPPANEE**, where I expect to devote my entire time to the breeding of **PURE ITALIAN BEES AND QUEENS**, can also procure and furnish **SYRIAN BEES AND QUEENS** bred in my Tennessee Apiary. All queens warranted pure to name and untested Queens warranted **reliably fertilized**.

- Six Warranted Italian Queens for..... \$ 5
- Twelve..... 9
- Single Queen..... 1
- First quality Sections..... \$3.75 per 1000.

I am up with my orders and expect to be able to send Queens by return mail from this on.

Bees by the pound same price as untested queens Will also furnish all kinds of sections and hives at A. I. Root's price.

I. R. GOOD, Nappanee, Ind

DADANTS FOUNDATION

is attested by hundreds of the most practical and disinterested bee-keepers to be the cleanest, brightest, quickest accepted by bees, least apt to sag, most regular in color evenness and neatness, of any that is made. It is kept for sale by Messrs.

- T. G. NEWMAN & SON, Chicago, Ill.,
- C. F. MUTH, Cincinnati, O.,
- JAMES HEDDON, Dowagiac, Mich.,
- F. L. DOUGHERTY, Indianapolis, Ind.,
- CHAS. H. GREEN, Berlin, Wis.,
- CHAS. HERTEL, Jr., Freeburg, Ill.,
- E. L. ARMSTRONG, Jerseyville, Ill.,
- ARTHUR TODD, 1210 Germantown Ave., Philadelphia
- E. KRETCHMER, Coburg, Iowa,
- E. F. SMITH, Smyrna, N. Y.,
- C. F. DALE, Mortonville, Ky.,
- EZRA BAER, Dixon, Lee Co., Ill.,
- CLARK, JOHNSON & SON, Covington, Ky.,
- J. B. MASON & SONS, Mechanic Falls, Me.,
- J. A. HUMASON, Vienna, O.,
- C. A. GRAVES, Birmingham, O.

and numbers of other dealers. Write for **SAMPLES FREE** and Price List of Supplies, accompanied with

COMPLIMENTARY

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1883. **We Guarantee every inch of our Foundation equal to sample in every respect.**

CHAS. DADANT & SON,
HAMILTON Hancock Co., LL

1886. ITALIAN QUEENS. 1886.

Six Warranted Queens for \$5. Send for circular. No circulars sent unless called for.

J. T. WILSON,
Nicholasville, Ky

E. L. GOULD & CO,

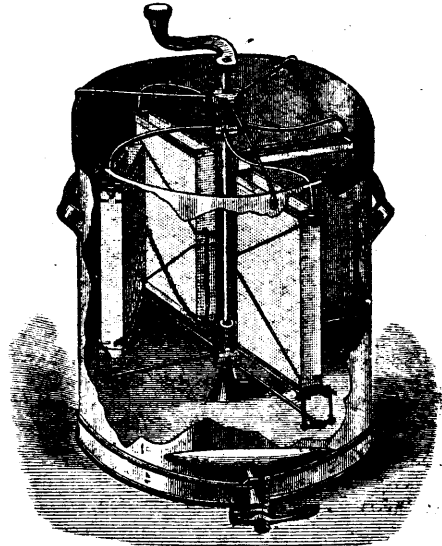
BRANTFORD, ONT.

Manufacturers of and dealers in a full line of

BEE KEEPERS' SUPPLIES.

Honey Cans and Glasses, Labels and Crates

Also Bees, Queens and Honey. Sole Manufacturers in Canada of



THE STANLEY AUTOMATIC HONEY EXTRACTOR.

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