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VOL. III, NO. 12

1887

JUNE 15.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

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BEETON ONT.

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See advertisement on another page.

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THE CANADIAN BEE JOURNAL will be continued to each address until otherwise ordered, and all arrears paid.

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ERRORS. — We make them: so does everyone, and we will cheerfully correct them if you write us. Try to write us good naturedly, but if you cannot, then write to us anyway. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

We can supply Binders for the JOURNAL 55 cents each, post paid, with name printed on the back in Gold letters.

Subscription Price, \$1.00 per Annum Postage free for Canada and the United States; to England, Germany, etc. 10 cents per year extra; and to all countries not in the postal Union, \$1.00

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Communications on any subject of interest to the Bee-keeping fraternity are always welcome, and are solicited. Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

When sending in anything intended for the JOURNAL do not mix it up with a business communication. Use different sheets of paper. Both may, however be enclosed in the same envelope.

Reports from subscribers are always welcome. They assist greatly in making the JOURNAL interesting. If any particular system of management has contributed to your success, and you are willing that your neighbors should know it, tell them through the medium of the JOURNAL.



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THIS OFFER WILL INTEREST YOU.

This Special Offer is made to *Subscribers* of the CANADIAN BEE JOURNAL.

To *Every Subscriber* who will forward to us the name of a *new* subscriber, accompanied by \$1.00, before April 1st, we will send FREE a copy of Rev. W. F. Clarke's "Bird's Eye View of Bee-Keeping," price 25 cents, or W. Z. Hutchinson's "Production of Comb Honey," price 25 cts.

To those sending us the names of two *new* subscribers, accompanied by \$2.00, we will send FREE a copy of James Heddon's "Success in Bee Culture," price 50 cents.

To those sending us three *new* names, with \$3.00, we will send Dr. C. C. Miller's "A Year among the Bees," price 75 cents.

To those sending us four *new* names and \$4.00, we will send A. I. Root's "A. B. C. in Bee Culture," paper, price \$1.00.

To those sending us five *new* names and \$5.00, we will send either Prof. Cook's "Bee-keepers' Guide," cloth, or Root's "A. B. C. in Bee Culture," cloth; price, each \$1.25

This offer is only to subscribers. Should anyone not at present a subscriber, wish to avail themselves of the offer, \$1.00 extra for their own subscription will make them eligible.

To all subscribers who send us ten *new* names and \$10.00, we will send FREE, Jones' No. 1 Wax Extractor, price \$4.00. This last offer we will positively not keep open any longer than July 1st.

We will send sample copies for use in canvassing, on application.

THE D. A. JONES CO., *Ld.*, Beeton, *Ont.*

THE AMERICAN AGRICULTURIST.

Always anxious to give our subscribers all the good things going, we are now making the following

UNPARALLELED OFFER.

- No. 1.—THE CANADIAN BEE JOURNAL..... \$1 00
- No. 2.—The *American Agriculturist* (English or German), 1887..... 1 50
- No. 3.—The A. A. Poultry Book, for Everybody. 256 pages. 100 illustrations. Most com-
work ever published..... 1 00
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written expressly for this purpose by James Parton, Donald G. Mitchell (Ik Marvel),
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- No. 7.—A magnificent portrait of General Grant from his last sitting. Grand Cabinet
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We will furnish all the above, post-paid, for..... 2 00
Send six cents to 751 Broadway, New York, for mailing you specimen copy of the *American
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BEETON.

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THE CANADIAN BEE JOURNAL

WEEKLY.

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

VOL. III. No. 12.

BEETON, ONT., JUNE 15, 1887.

WHOLE No. 116

EDITORIAL.

WALKING about light lumber for bee hives brought out friend Heddon. In going over the last number of the *British Bee Journal* we find an article from a bee-keeper who has wintered successfully in hives three-eighths of an inch thick. We quote the article as it appears. The editor in a foot note advises that no one else try his experiment as a precedent. However, the time, we believe, is coming when there will be much lighter hive material used than now:

"I, and my bees, have just passed an exceptionally cold winter; the only difference in our situations being this trifling (?) circumstance, I found means whereby to keep up two fires,—aye, and pass a great portion of my time in near proximity thereto, while my bees—bless the little gems!—were on the bleakest of the bleak elevations of the village, destitute of flannel, cork-dust, carpet, quilt, or packing of any kind. One of the stocks—equal in point of strength to any I have—having spent the time in a cheap *half-inch* stuff hive, with double walls, but nothing more to cover them as roof but the half-inch stuff mentioned. I need not name the *contretemps* that caused this want of what is deemed necessary care and protection from inclement weather, it was unavoidable under the circumstances, and when I

had my supposed tenantless hives—eleven in number—brought near to my *domus*, my surprise was great indeed, and my delight was excessive, as the ever-welcome hum sounded in my ears. Not a bee apparently any the worse for being thus 'left out in the cold,' down, down, I know not how far below zero. Old, aged, as I am, I am not too old to learn; tell me then, O ye learned in the anatomy, the physiology, the *temperature* of a bee, what lesson am I to draw from the facts now related. Am I to disregard in future all the admonitions, the counsel, the cautions which our experts and bee-masters so earnestly publish; or am I to look upon the incident as constituting a marvellous escape from a violent death—a being frozen to death?"

P.S.—I find the stuff is not half-inch, it is only *three-eighths*.

The value of honey imported into the United Kingdom during the month of April, 1887, amounted to £1,711.

OUR OWN APIARY.

WHIS bids fair to be the bee-keepers Jubilee year, as thus far we have had a continuous flow of honey and now the flow is more than is necessary for brooding purposes, and surplus is being stored; and by the immense number of kinds of honey tins that we are shipping out, others must be getting, and expecting large yields.

Storage room is a matter that should not be delayed until the last moment as it may incur great loss just at the critical time, when the extractor must be used in order to secure the largest yields and keep the bees in the best condition. Many of our colonies are preparing to swarm and many would have done so ere this, had they been permitted. to do so. We should not be surprised if excessive swarming is the rule in many apiaries unless they are carefully watched and the proper means taken to prevent after swarms. We have taken out dozens of large fine developed queen cells from some of our hives but by the use of a queen nursery we are able to preserve them for future use.

The interest in bee-keeping seems to be growing more rapidly, and to show how anxious some are to succeed in the business, we might mention that at one of our apiaries a number of hives have been examined by some unknown person, and a number of combs filled with brood, have been removed from the centre of the brood-chamber. If the party or parties who stole the above-combs will acknowledge and ask forgiveness, we will freely grant it, and present them with a swarm of bees, that they may embark in the business in a more legitimate way.

QUEENS BY MAIL FOR 3 CENTS.

Postage on queens by mail is only 3 cents when shipped in the cages which we are now making. They are of very light, dry cedar, and will contain food sufficient for a 6 or 8 days journey. The dimensions of the cage are $1\frac{1}{2}$ in. long $1\frac{1}{2}$ in. wide and five-eighths of an inch deep. There are two apartments, one for food and the other for bees. The space for bees is about $1\frac{1}{8}$ inches round and half an inch deep; and that for food is about three-eighths of an inch broad and five-eighths of an inch deep.

MAKING NEW APIARIES.

We have now commenced to remove our surplus colonies from Beeton to our summer yards. We find the cost is very slight to take them out in the spring just as the honey season starts and return them as soon as it is over.

Where the roads are good it is not necessary to place the bees in even a spring waggon, providing the driver is careful and does not allow the wheels

to pass over any rough places or stones that may give them a sudden jar, but where the colonies are very strong it is necessary to place wire cloth or mosquito bar over the top of the hive first. From four to eight inch space should be allowed above the frames for the bees to cluster in. This will prevent the melting down of combs and smothering by bees; it reduces the cost of management of apiaries very much to reduce the number as much as possible early in the fall and take them back again the following spring. Where you have facilities for wintering them and can give them your attention, much loss is frequently obviated; besides one man in the early spring, or late in the fall, can look after a thousand colonies of bees about as well as he could one hundred in the honey season. Instead, then, of having to keep one employee in the out-apiaries for seven or eight months, two or three months is now sufficient.

NEW INVENTIONS.

We are now testing some new inventions which we hope to be able to report later on, and we believe our friends will appreciate the improvements now under consideration. What we want is to simplify and cheapen our system of producing honey as much as possible. If we can reduce the cost of production by any means, say 25 per cent, it just adds so much profit to our work and enables us to compete more satisfactorily against other goods.

For the Canadian Bee Journal.

Bee-Keeping in the County of Kent.

THE death of a widowed sister, whose affairs it devolved on me to settle up, took me to Dresden May 10th, and detained me there several days. On one of the afternoons of my stay, I drove out to see an apiary located near the village. It is owned by Mr. E. Piggott, who keeps about fifty stands of bees, runs a hive factory, raises queens for sale, and deals in apiarian supplies generally. I was agreeably surprised at finding so extensive and complete an establishment in that part of the country.

Being fortunate enough to find Mr. Piggott at home, we were soon deeply in *confab* on matters pertaining to bee-keeping. Dresden is not a good locality for an apiary. There is comparatively little white clover and basswood. The

Sydenham river, which runs through the village, and is navigable some little distance further inland, has floated away in barges and propellers pretty much all the valuable timber of the region, basswood included. There are few parts of the country where commerce has made a cleaner sweep of the woods and forests than here. A few miles back from the river, there is abundance of basswood, and far more white clover, than in the vicinage of Dresden. It is therefore Mr. Piggott's intention to move his bees at an early day, to "fresh fields and pastures new."

Mr. Piggott's bees were in fine condition. They had wintered well, on their summer stands, in chaff-packed hives, and were teeming with surplus workers, ready for swarming out, or getting in the honey harvest. The season is fully two weeks earlier than in my neighborhood, and already swarms had begun to issue. One of Mr. P's. neighbors had a large swarm come off May 7th. Quite a number of farmers in the region of country around Dresden keep bees in a small way, and a few parties have gone into the business as a specialty. Prominent among these are a couple of lady bee-keepers. One of these, a Miss Simpson, has nearly 100 colonies, and raised last season 13,500 pounds of honey. The other, Mrs. Cameron, who lives in or near the village of Valetta, wintered 126 stocks successfully during the past winter, and this spring has sold upwards of fifty stocks to less fortunate bee-keepers and new beginners; let about fifty hives on shares, and reserved fourteen stocks to build up her home apiary with. Some of the bee-keeping specialists have had a bad winter. One of them who went into winter quarters with eighty colonies, lost all but five or six. They were in single-walled hives, which, in our severe climate, furnish inadequate protection. Another, out of thirty, had only one left. Though the winter is on the whole, milder in this than in many other parts of Canada, it is liable to great and sudden changes of temperature, which are harder on bees than steady cold weather.

Mr. Piggott is an intelligent bee-keeper, and is, to a large extent, self-taught. His plan of chaff-packing is in some respects peculiar, and I wish he would describe it in the CANADIAN BEE JOURNAL for the benefit of others. I will say the same of a feeder, which, amid the multiplicity of such devices, has some novel features about it, worthy of attention. Mr. Piggott has tried various races of bees, but owing to the proximity of native bees in other apiaries and in the woods around him, most of his stocks are more or less hybridized, but they are a fine sample of large, energetic, business bees, and in a good honey section, would certain-

ly give an excellent account of themselves. One cannot visit such an apiary, without being impressed with the importance of locality, as a prime factor in successful bee-keeping. Here, apparently, you have everything first-class, except the field for honey-gathering.

WM. F. CLARKE.

Guelph, June 4th, 1887.

For the Canadian Bee Journal.

DR. MILLER ONCE MORE.

THE worthy doctor is like an Italian bee, usually very amiable, but when roused, wonderfully persistent. On page 194, C. B. J., he says he has never advocated "priority of location." I think I have proved conclusively that he did at one time advocate it, without a doubt. He refers me to page 781, *Gleanings*, for October 1, 1886, and quotes a brief extract. I find in that article the following sentence preceding the one he has quoted:—"It is of practical importance, if my position is correct, to be able to invest time and money in this business, and have some feeling of security that there is some permanence about it; that no mere whim of some envious neighbor may drive me out of the business next year; that after making investment in buildings and fixtures, and perhaps special pasturage, I may feel secure that no one else may be able, by overstocking, to drive me from the field." The "envious neighbor" is evidently a new-comer, who, seeing the Dr's. success, wishes to divide with him. A question of fact has been raised. Has the Dr. advocated priority of location, or has he not? I have marshalled the evidence, that he has, and that his position is untenable without it. He is the chief witness against himself, and had better confess judgment. If he does not, the case must go to the bee-keeping public, for their verdict.

WM. F. CLARKE.

Guelph, June 4th, 1887.

THE INDUSTRIAL EXHIBITION.

PRIZE LIST FOR THE HONEY DEPARTMENT.

Open to all Bee-keepers (agents excluded).—Entrance Fee, 25 cents each entry.

SEC.	1st	2nd	3rd
1. Best display of extracted granulated honey, in glass, not less than 200 lbs.....	\$12	\$8	\$4
2. Best display of liquid extracted honey, not less than 1,000 lbs., of which not less than 500 lbs. must be in glass....	20	15	10
3. Best and largest assortment of different kinds of extracted honey, properly named, not less than 3 lbs. of each kind..	4	3	2

SEC.	1st	2nd	3rd
4. Best display of comb honey in sections, not less than 1,000 lbs.....	20	15	10
5. Best display of comb honey in sections, not less than 20 lbs. (exhibitors in Sec. 4 excluded)	4	3	2
6. Best beeswax, not less than 10 lbs.....	3	2	1
7. Best mode of marketing extracted honey.....	3	2	—
8. Best mode of marketing comb honey.....	3	2	—
9. Best comb foundation for brood chamber.....	3	2	—
10. Best comb foundation for sections.....	3	2	—
11. Best mode of securing the largest yield of comb honey.....	3	2	—
12. Best mode of securing the largest yield of extracted honey..	3	2	—
13. Best and largest display of apiarian supplies.....	1 Silver Medal	2 Bronze "	
14. Best style and assortment of tin for retailing extracted honey.....	Bronze Medal		
15. Best style and assortment of glass for retailing extracted honey.....	Bronze Medal		
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17. Best and most practical and new invention for the apiarist	3	2	1
18. Best honey plants, collection of	3	2	1
19. Best assortment of fruit preserved in honey, not less than 5 bottles.....	5	3	2
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21. Honey vinegar, not less than 1 quart.....	3	2	1
22. Best display of honey, not less than 500 lbs., of which 100 lbs. must be extracted granulated in glass; 200 lbs. of liquid extracted in glass; and 200 lbs. of comb honey in sections, in addition to and distinct from other entries...	Dominion Silver and Bronze Medals.		

Part 2.—Open only to Bee-keepers who have not had over 20 Colonies during the season of '87.

SEC.	1st	2nd	3rd
23. Best 20 lbs. of linden extracted granulated honey in glass....	\$5	\$3	\$1
24. Best 20 lbs. linden extracted liquid honey, in glass.....	5	3	1
25. Best 20 lbs. thistle granulated honey, in glass.....	5	3	1
26. Best 20 lbs. thistle extracted liquid honey, in glass.....	5	3	1
27. Best 20 lbs. clover extracted granulated honey, in glass...	5	3	1
28. Best 20 lbs. clover extracted liquid honey, in glass.....	5	3	1
29. Best 20 lbs. comb honey, in sections.....	5	3	1

Send five cents for a complete set of all our Honey Labels.

APICULTURAL EXPERIMENTS.

THE following extracts are made from the official reports of experiments made in apiculture by Prof. N. W. McLain, of Aurora, Ill.

PREPARING BEES FOR WINTER.

Bees instinctively begin to make preparations for winter somewhat earlier in the season than is commonly supposed. In preparing for winter as in all other matters relating to bee-keeping the apiarist should see to it that the method of management is as nearly as possible in agreement with the instinct and habits of the bees. When bees build their combs after their own design, as in box hives, spaces are left between wide enough to admit of elongating the cells in order that a large share of the winter stores may be placed in the top of the hive, easily accessible in the severest weather. I find it good practice to widen the spaces between the comb-frames, near the close of the honey-gathering season, in order that the bees may, by elongating the cells, place a large share of the winter store above the cluster.

As soon as the storing of surplus honey is done the condition of every colony should be examined, the amount and character of comb-winter food ascertained, the number of comb-frames, and the size of the apartment should be determined by and adapted to the wants of each colony. After the supply of winter stores has been equalized among all the colonies, if the supply is insufficient, feeding should be done before the advent of cold nights.

Bees expected to perform the function of hibernation should not be too old nor yet too young. Both queen and worker bees should be in full physical vigor. The bees constituting the colony, when placed in winter quarters, should be such as are hatched after the midsummer working season is past, and before the bees cease flying freely in the fall.

Towards the close of the working season the workers instinctively cease stimulating the queen for oviproduction; gradually the bees cease flying, and the cluster is formed for winter. After the cluster is formed the colony should remain undisturbed. If the bees are to be packed on the summer stand the work should be done with care, and without disturbing the bees, and before the temperature at night reaches the freezing point. If the bees are to be placed in a clamp or in cellar, or winter repository, great care should be taken not to disturb the cluster when the hives are removed from the summer stand. I have found woollen quilts or woollen blankets the best covering for winter. Wool better than

any other material which I have tried, prevents the radiation of heat, and permits the escape of moisture, thus securing warmth and dryness. Hives should be placed eighteen inches above the bottom of the cellar or winter repository, and in tiering them up one above another it is better that they rest on a rack prepared for the hive rather than one upon another.

My report for 1885 covers the period from June 1st to November 25th, when the severity of the winter forbade further out-of-door experiments. As nearly all the colonies in the apiary had been subjected to very frequent, almost daily, disturbance and annoyance incidental to the experimental purposes for which they had been used, they were, almost without exception, in very poor condition for passing into winter quarters. November 25th I packed twenty colonies for out-door wintering. Notwithstanding the lateness of the season, and the altogether unsatisfactory condition of the bees when packed, eighteen of the colonies wintered fairly well. These twenty colonies were provided with dry sawdust packing eight inches thick on the sides, and covered with a quilt and dry forest leaves to the depth of eight inches on top of the frames. A rim two inches wide is placed under the body box of the hive, making a two-inch space under the bottom bar of the comb-frames. A covered tunnel leads from the hive entrance through the packing. This packing is left on the hive until warm weather is assured, thus guarding against danger from chilling of the brood when building up the colonies rapidly in early spring. The hive should incline from back to front permitting the moisture to flow out at the entrance.

I placed ten colonies in the cellar from which the hive covers were removed and the frames covered with woollen and cotton quilts. These were used for observation and experiment during the winter. Eight of the ten came through the winter alive, but being subjected to a wider range of temperature, and being very frequently annoyed and disturbed, their vitality was very low, and the old bees, of which most of these colonies were composed fell easy victims to spring dwindling.

HIBERNATION.

For the purpose of determining the degree of temperature in a dry cellar necessary to secure the minimum of functional activity within the hive during the period of hibernation, I framed comb-frames across each other at right angles, and into these frames I fitted and fastened combs filled with choice sealed honey. These were suspended in hives having glass sides and top, exposing the cluster to view from

all sides and from the top. Removable wooden doors covered the glass.

My observations covered a period of ninety days from December 1, 1885, and included a range of temperature from zero to 65° F. The hives were placed in a dark apartment, and an oil stove with a radiator was used for heating. Different degrees of temperature were maintained for several consecutive hours, and, as occasion required, for consecutive days, and careful observations were taken.

At a range of temperature from 48° to 52° F., according to the humidity of the atmosphere in the cellar, bees, according to a rule of nature, enter into the hibernating state. After repeated trials over a wide range of temperature, at 41° F. I found the shape of the cluster most permanent. While that degree of temperature was maintained, little change in the shape or location of the clusters could be seen, and functional activity on the part of individual bees, and of the whole colony as well, seemed to have reached the minimum degree of manifestation, even respiration seemed to be suspended. The change in the form of the cluster was determined by outline drawings on paper. The colonies presented substantially the same outline for days together when a uniform temperature of 41° was maintained. I placed some colonies in a darkened building late in the fall of the year, and when the temperature was 40° F. natural heat on a dry day above ground, the same phenomena were observed.

The temperature of the cellar was lowered by admitting the air through an outer room, so that no perceptible currents entered the apartment where the bees were kept. The degree of unrest and activity increased in proportion as the temperature neared the zero point. Thirty-seven degrees F. in a very dry cellar is a danger point, the danger increasing in proportion as the temperature is lowered or the humidity of the atmosphere is increased.

The degree of activity shown by bees when the temperature in the repository or cellar is 44° F. is not much greater than at 41°, all other conditions being the same.

At intervals of about one week the bees arouse to activity, the form of the cluster changes, and after three or four hours of cheerful and contented humming, having in the meantime appeased their hunger, the cluster is reformed into a compact body, the humming ceases, respiration becomes slow, profound silence reigns in the hive until change of temperature or the demands of hunger rouse the bees from the coma in which they have been bound. The more perfect the

conditions for hibernation the longer periods of inactivity.

As the activity of the bees is not much greater when the temperature in the cellar or repository is steadily maintained at 44 degrees than it is at 41 degrees, and as 41 degrees is too near the danger point, I find it safer to keep the temperature in dry winter repositories, whether above or below ground, at 44° F., and I find it better that the variation from the standard degree of 41° F. should be in proportion of two degrees above rather than 1 degree below. If the repository be damp a degree of temperature higher in proportion to the dampness should be maintained. The hive should incline from back to front, and the entrance should be left wide open.

It has been the practice of many to raise the temperature in winter repositories in order to stimulate breeding toward the close of the hibernating period. I have tried this, and in my experience I find it better to maintain as nearly as possibly an even temperature until the bees may be safely placed on the summer stands. What is gained in early breeding is more than lost in the waste of vitality on the part of the older bees. In the case of bees wintered on the summer stands or in a clamp, the packing of dry forest leaves, chaff, or sawdust placed above the quilt should be closely packed about the edges, and should be from seven to twelve inches in thickness. Indeed it would be difficult to get the packing above the cluster too deep, provided the ventilation above the packing is sufficient to carry off moisture.

SPRING DWINDLING.

For preventing spring dwindling, and building up colonies to maximum strength and efficiency at the beginning of the working season—for success in honey-producing largely depends on having strong colonies ready for work at the very time when efficient work may be done—I prepared a bee-food containing the elements essential in brood-rearing. This food is prepared after the following formula :

To ten pounds of sugar I add half a pint of dairy salt, two tablespoonfuls bicarbonate of soda, two tablespoonfuls rye flour, two tablespoonfuls finely powdered bone-ash, and one tablespoonful cream tartar. Mix thoroughly, then add two quarts hot water, and stir until thoroughly dissolved, and let the mixture boil but only two or three minutes. I feed this food in the hive as honey or syrup is usually fed, thereby keeping all the bees at home to aid in keeping up the temperature in the hive, thus reserving their vitality for performing the functions of brood-rearing, instead of speedily wearing out

their remaining strength in roaming the fields in search of the elements essential to larval growth.

The bone-ash is prepared by burning dry bones to a white ash, which I pulverize and sift through a sieve made from fine wire strainer cloth. As this food is not intended for use until after the bees have had a good flight in the spring, almost any grade of sugar or dark low-grade honey may be supplied for brood-rearing.

The rapidity with which a colony consisting of a mere handful of bees may be built up to full strength and working efficiency by using this preparation is surprising. Only as much as is needed for immediate consumption should be frequently supplied, and it should be fed only to prevent spring dwindling, or when it is desirable to quickly increase the numerical strength of the colony in anticipation of a honey harvest, or to recruit the vigor and strength of the colony by rearing young bees after the working season, and prior to going into winter quarters.

For the Canadian Bee Journal.

Spring Session of the Oxford County Beekeepers' Association.

HELD AT WOODSTOCK, MAY 21ST, 1887.

AFTER the usual order of opening, etc., the members entered heartily into the consideration of the following topics :

MARKETING HONEY.

The matter of foreign marketing was more particularly considered. Mr. J. B. Hall gave a detailed account of what had already been done towards opening up the English market to Canadian honey. He said our honey was well received; that very favorable opinions were already formed in Britain regarding the Canadian product, and that if we could guarantee a constant supply of No. 1 honey, there was no reason why a permanent market could not be made in England.

Mr. F. Malcolm, a pioneer cheese maker in Oxford, gave a very nicely condensed history of the development of the cheese market in Britain. He apprehended that difficulties and disappointments would necessarily follow the effort. They had had bitter experience in the progress of the cheese trade, but to-day the consumption of cheese in Britain produced the Canadian market, and he hoped and even looked forward to the time when Britain would be our great honey market. No one, however, seemed willing to general a market campaign. Some of the already talked of plans were casually talked over, selling through English commissioners being thought the most practicable.

FOUL BROOD.

Mr. J. E. Frith gave a detailed statement of its progress in his apiary. He had caught the disease from a neighbor who had it for some time before knowing that he was a victim to its ravages, and perhaps, not knowing its malignant character, did not let it be known for some time after he had lost all his bees. Mr. Frith accidentally found out last fall after he had put his bees into winter quarters that he had been exposed for upwards of two years to the disease. On taking his bees out this spring, he found that three colonies had succumbed to foul brood, and that to date, four others were affected. These statements created considerable anxiety regarding foul brood. All the known methods of cure and prevention were liberally discussed. Cheshire, McLean, starvation and cremation plans were suggested, and Mr. Frith left to hold combat with the dread malady.

It was generally hoped that sooner or later foul brood would be brought under the quarantine laws of Canada.

Mr. Hall stated on behalf of a committee appointed last December, to confer with the O. Beekeepers' Association, regarding the matter of quarantine, that so far nothing definite had been done.

INSURANCE.

Some of the members had asked some of the insurance companies to insure their bees while in winter quarters, but had met with a temporary refusal. The companies did not know on what plan bees could be insured. The question was not satisfactorily answered (perhaps some of the readers of the C. B. J. could answer, that is, give plans on which bees are insured while in winter quarters).

LOOSE BOTTOM BOARDS.

Mr. Malcolm found loose bottom boards very convenient in spring. The hives were so easily cleared of dead bees. A goodly number agreed with Mr. Malcolm. Those using solid bottoms did not report.

RAISED HIVES.

Mr. Malcolm had experimented the past winter with raised hives. He found such colonies free from dead bees. Such colonies compared very favorably with those not raised. He found no difficulty in putting them out in spring. All things considered, however, he did not see that there was much to be gained by raising hives from the bottoms in winter.

CELLAR WALLS.

Dr. Duncan, Martin Emigh, J. B. Hall and others gave some experience in piling hives too near cellar walls. The losses occurring where hives were placed nearer than eight to twelve

inches to the walls was much greater than when a space was left between bees and wall.

WINTERING

was generally good, losses small on the average.

SPRINGING

was good in some localities and bad in others.

TEMPERATURE.

Those keeping bees from 48° upwards were most successful.

TIME TO SET OUT.

Early and late setting out had been tried with varying results. Mr. Frith had found that if two or three warm days followed setting out and then two weeks of cold, cloudy weather, bees seldom dwindled.

APIARIAN MACHINERY.

Mr. Eden showed a very ingenious machine for sticking starters in sections. It is very easily manipulated and does its work rapidly and well.

ADULTERATED HONEY.

Mr. Frith showed a sample of honey sent to him during the winter, put up by an Ontario bee-keeper. The sample was subjected to a thorough trial, and the unanimous verdict was that said sample was "sugar syrup, slightly adulterated with honey." The said sample was warranted not to granulate.

ANNUAL MEETING.

A motion was moved and enthusiastically carried that we meet with the O. B. Ass. at their annual meeting to be held in Woodstock next winter.

A committee consisting of Mr. Hall and Mr. Martin was appointed to secure a hall, etc., for the next "big meet." We all look for, and do expect to have a rousing good time.

The association adjourned as above.

J. E. FRITH, Sec.-Treas.

May 21st, 1887.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked, 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.

OILCLOTH QUILTS.

QUERY No. 156.—Which side of the oil cloth that is used as a quilt goes next to the bees, and does it require anything besides in summer but cover of hive, I mean for warmth?—H. COLE, Alymer, P. Q.

M. EMIGH, HOLBROOK, ONT.—I don't use them.

S. T. PETTIT, BELMONT, ONT.—I have never used oil cloth as a quilt or covering for bees.

PROF. A. J. COOK, LANSING, MICH.—(1) Enameled side next to bees. (2) No. I do not wish these in my apiary. I have tried and rejected them.

G. M. DOOLITTLE, BORODINO, N.Y.—(1) I use the finished or oil side next the bees. (2) I use a sawdust cushion over them.

H. D. CUTTING, CLINTON, MICH.—Always use the enameled or black side next to the bees. I use nothing else over the bees but the hive cover.

DR. C. C. MILLER, MARENGO, ILL.—Oiled side next bees. At any time when supers are not on, I prefer a cushion of some kind over the oil cloth.

O. O. POPPLETON, HAWK'S PARK, FLORIDA.—I do not use quilts, so cannot answer that part of the question, but the more experience I had in an extreme northern location, the more value I attached to using cover of some kind for warmth.

DR. J. C. THOM, STREETSVILLE, ONT.—I have never used oil cloth for quilt, but presume the side not oiled is intended to be next the bees. In summer I should say not, if the cover is a flat one.

H. COUSE, CHELTENHAM, ONT.—(1) Have only used a few of these quilts. I put the enameled side next the bees. (2) Would also prefer extra quilts or packing for spring until about the middle of June.

HONEY AND CHEESE.

QUERY No. 157.—What price should extracted honey bring, to be equal with prices realized for cheese during the past four or five years, placing the latter at eight and a half cents after deduction of cost of manufacturing?

S. T. PETTIT, BELMONT, ONT.—Don't know.

H. D. CUTTING, CLINTON, MICH.—I know nothing about the manufacture or cost of production of cheese.

H. COUSE, CHELTENHAM, ONT.—I could not say, but do not think it will pay bee-keepers to sell their honey for less than 10c. wholesale.

DR. C. C. MILLER, MARENGO, ILL.—I am afraid bee-keepers are not well enough posted in the cheese business to answer.

M. EMIGH, HOLBROOK, ONT.—I can only answer for myself. I would as soon raise honey at six as cheese at eight cents per pound.

PROF. A. J. COOK, LANSING, MICH.—I should say what it brings in same market. The same laws govern in fixing price of all our commodities.

G. M. DOOLITTLE, BORODINO, N.Y.—The lately honey kept about the price of butter, now it is much lower. Should think honey ought to equal cheese as to price, to pay same profit.

O. O. POPPLETON, HAWK'S PARK, FLORIDA.—I think extracted honey can be raised for two-thirds the nett price of cheese, but I don't think cheese averages 8½ cts. per lb. above cost of manufacture.

DR. J. C. THOM, STREETSVILLE, ONT.—This is beyond my calculating capacity, but speaking generally our cheese-making friend will find as much money pound for pound in cheese as honey, especially if he understands the former. In ten years he will be quite as well off, I venture to affirm, by making cheese.

VALUE OF BEES IN SPRING.

QUERY No. 158.—If a colony of bees were worth \$6.00 in the fall, what price should be placed on them in the spring?

M. EMIGH, HOLBROOK, ONT.—\$8.00.

G. M. DOOLITTLE, BORODINO, N. Y.—\$8.00.

O. O. POPPLETON, HAWKS PARK, FLA.—About \$8.00.

H. D. CUTTING, CLINTON, MICH.—\$10.00, but it would depend on location.

PROF. A. J. COOK, LANSING, MICH.—\$9.00 or \$10.00 if large and strong.

S. T. PETTIT, BELMONT, ONT.—I should say about seven to cover loss and trouble.

DR. J. C. THOM, STREETSVILLE, ONT.—Ought to be worth from one to two dollars more.

DR. C. C. MILLER, MARENGO, ILL.—That depends. In some seasons and places \$12.00, in some \$7.00.

H. COUSE, CHELTENHAM, ONT.—If said colony has been put in proper shape for wintering they should be worth about \$8.00 in spring, but if they have still to be fed add to this also the price of the feed, etc.

BEST BEES FOR EXTRACTED HONEY.

QUERY No. 159.—What race of bees is now considered the best for extracted honey? Those who cannot give an unbiased opinion need not answer.

M. EMIGH, HOLBROOK, ONT.—I pass.

H. COUSE, CHELTENHAM, ONT.—Italians, for me.

G. M. DOOLITTLE, BORODINO, N. Y.—Italians, by G. M. Doolittle.

DR. C. C. MILLER, MARENGO, ILL.—Italians, I think are considered best by the majority of bee-keepers.

DR. J. C. THOM, STREETSVILLE, ONT.—Italian bees. Every one who differs from mine has a "biased" opinion.

O. O. POPPLETON, HAWKS PARK, FLA.—My opinion is so strongly biased in favor of Italians for the production of extracted honey, that the querist doesn't want me to give it.

PROF. A. J. COOK, LANSING, MICH.—I should say that the Italians have most friends. I think it possible that the Syrian and Carniolan might rank as high if as well known, possibly higher.

H. D. CUTTING, CLINTON, MICH.—I think Italians are generally considered the best for extracted, but with five different races I am still in doubt so many different things must be taken into consideration.

S. T. PETTIT, BELMONT, ONT.—A cross between the Italians and common black. Some that are very black with Italian blood are equal to the best for extracted and superior for comb. I want the blacks for comb slightly touched up with the Italian race.

SUNDRY SELECTIONS.

GOODS SUIT NICELY.

GEORGE A. GUMMER.—I have just received goods ordered from you in good condition and promptly.

Colborne, June 3rd, 1887.

E. DE CEW.—I send you herewith subscription for CANADIAN BEE JOURNAL. I consider it the best work yet published on the subject of bee-keeping, but I have concluded that bees are like the buckwheat crop with farmers, extremely uncertain.

De Cewsville, Ont.

AN EXCELLENT TOP BAR.

THOMAS RAMAGE.—Shipment of supplies to hand on the first day of June in fine condition. The hives are the best that we have yet received and your new arrangement for fastening foundations in the top bars of frames is excellent. The sections are also very satisfactory.

Richview, June 3rd, 1887.

A. BECHTEL.—My bees came through the winter with the exception of one colony which starved. Some three or four were troubled considerably with dysentery and they dwindled down a good deal so I have doubled them up. Out of the 19 I put into winter quarters, I have 15 colonies, 9 or 10 of which are in first-class condition. Thus far this spring they have gathered more honey than I ever saw done in the same length of time. I extracted a few of them on the 12th of May and gave the queens more room to-day and I am going to extract some more this afternoon (May 19) as they are making preparations to swarm. They are on ten frames of the

Jones' hive so that you can estimate their strength pretty well.

Port Elgin, May, 1887.

HOW TO PREVENT AFTER SWARMS.

A SUBSCRIBER.—Is it a safe or a good practice to move the parent colony to a new stand after a swarm has issued, placing the new swarm in its stead in order to prevent the issue of after swarms?

Some of our best bee-keepers prefer to get all the old bees in the new colony at the time of swarming, and also those which mark the location from the parent colony for six or seven days after swarming. This reduces the parent colony so that swarming seldom takes place after. This makes the new colony very strong and large yields of honey may be expected from them, as they have little brood to care for for some-time.

REARING DRONE EGGS.

A. B. BRAY.—I would be pleased to have the following answered through your valuable JOURNAL for the benefit of its readers. (1.) Can worker bees be made to rear drones the same as they can be made to rear queens by giving them brood?

Yes, providing the drone eggs are given to them at the time when they are sufficiently strong to rear drones or bees late in the season. Early in our experience in bee-keeping, we recollect trying to induce the bees to raise drones early, in fact before they were sufficiently strong, or before the honey flow had commenced, and in many instances they would destroy the eggs and even the larva; but by removing the queen we could make any colony raise drones, and in the same way we succeeded in keeping drones very late in the season. Queenless hives would allow their drones to remain undisturbed in the hive while all those having queens would destroy them at the end of the honey season.

ITALIANIZING EARLY.

(2.) Can Italian queens be reared before black drones come?

Bois D'arc Mo, May 25th, 1887.

It is not usual for Italians to rear queens much sooner than Blacks, at least we think that trying to Italianise by rearing them early would not be very successful. We much prefer queens reared late in the season to those reared early. The best time, we think, to Italianise is when the season is at its height and then queens can be got

much cheaper. In fact we would prefer, if we were Italianising an apiary, to buy unfertile queens, as they can be got so cheap, and the following season all the drones would be pure. This is a plan now adopted by many. We are fully convinced that it is not in our interest to raise large numbers of bees to hatch just after the honey is over. They are usually too late to get stores to go into winter quarters. This might be different in some localities where there was a good fall flow of honey, but we seldom get much in this section.

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.

WEEKLY, \$1.00 per Year, Postpaid.

BERTON, ONTARIO, JUNE 15, 1887.

BUSINESS DEPARTMENT.

We have just received from our lithographers several hundred thousand labels of the various kinds, so that those who had labels on order will receive them at once. The price of these is much cheaper this year and we anticipate a larger sale than heretofore.

In our circular we state that odd sizes in sections will be furnished at the advance of ten per cent on regular prices if ordered in quantities of a thousand and over. This of course has reference to odd sizes ranging from $3\frac{1}{2} \times 4\frac{1}{2}$ to $4\frac{1}{2} \times 4\frac{1}{2}$ for sections which are designed to hold about a pound. We have never until the present season manufactured any two pound sections and we have just sent out the goods in execution of two or three orders for sections $5\frac{1}{2} \times 6\frac{1}{2}$. Sections of this size, of course we would not think of manufacturing at ten per cent on price of regular sizes of pound sections, and lest there be any misunderstanding we mention this fact. The price for any size of sections over 5×6 will be \$7 per thousand.

We are right up with our orders and as they come in they are filled by return mail, freight and express. We were never in this position before and we were never so successful in satisfying our customers as we have thus far this season. We have not had more than half a dozen complaints and the majority of these were exceedingly trifling. It is impossible to get along always without making some mistakes, but by being careful there is much less chance. We find that

our combination hive is fast beginning to find favor, every day bringing fresh orders.

Let it might be supposed that our business has fallen off and hence we are able to keep up with our orders let us say that our Canadian trade for May is nearly three times greater than it was in the same month last year, and for April it had increased nearly four times over what it was in the same month of 1886.

We have at Plantagenet, Quebec, two thousand sections $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ with slots top and bottom only. We will sell them at \$4. per thousand F. O. B. cars there. They are not the size which should have been sent our customer hence the reason for our offering them for sale.

STEALING QUEENS OUT OF THE MAILING CAGES.

The other day we put up a home bred Italian queen and sent it by mail with the attendant bees to a customer in Lanark county, but on its arrival there was neither queen nor bees in the cage. The cage was opened in presence of our postmaster, who verifies the statement of our customer. Our foreman and his assistant are positive that everything was right when the cage was sent from here, and that it contained the queen and bees. When we first were made aware of the fact we thought possibly they might have picked up a cage and shipped it empty by mistake. The queen either has been taken from the cage intentionally, or some inquisitive party has opened it for the purpose of seeing what it contained, and thus allowed the queen and bees to escape. The latter looks to us a little too improbable, as it is hardly possible that all the bees could have escaped before the cage could be closed again, so that we feel satisfied that the cage was tampered with en route. This is the first instance we have had of the kind and should it occur again, we will place the matter in the hands of the Post Office Inspector.

PRICES CURRENT

BEE SWAX

We pay 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... 57c
over 50 lbs. 50c
Section " in sheets per pound... 55c
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. 60c
Brood Foundation, starters, being wide enough for Frames but only three to ten inches deep... 48c

HONEY MARKETS.

BEE TON.

Extracted.—Very little coming in. For A 1 clover or linden, 8 cents is paid; mixed flavors, 7 cents; darker grades, 5 cents—60 lb. tins, 90 cents each allowed.

Comb.—None offered, with market dull. We have about 200 lbs. on hand, No. 1 will bring 14 cents; No. 2, 12 cts. per pound. See special notices.

DETROIT HONEY MARKET.

Best grades of Comb Honey have received more attention since last quotations and the price has advanced. Best white clover in one pound sections 11 to 12 cts. Beeswax 23 cts.
M. H. HUNT.

NEW YORK.

Sales of comb honey the past two months exceeded largely sales of corresponding period of last year. The large stock in dealer's hands is becoming less every day, and the present outlook is that all the better grades will be closed out before the new crop arrives. There is quite a large stock of dark and off grades of white, which we apprehend will be carried over. Prices are ruling low, we quote:—White comb, 9 to 12c.; dark comb, 5 to 7c.; California extracted, 5 to 6c.; California comb, 8 to 9c.; beeswax, 23 to 24½c. We beg to inform you that we have removed our place of business to 28 and 30 West Broadway, near Duane St., where we have better facilities for handling honey.

McCAUL & HILDRETH BROS.

EXCHANGE AND MART.

WANTED—Young man, experienced in Bee-keeping, to assist in taking charge of apiary. State wages. Address, JAMES W. MILLER, Fingal, Ont.

15 COLONIES of Hybrid Italians and Black Bees for sale at \$7.00 each. Frames 11½x11½. 12 in each hive. W. J. HONEY-FORD, Avening.

15 COLONIES of Italian Bees for sale. Complete Jones hive. 10 frames with each hive. Good queens. Price \$8. Apply to ERNEST SCHULZ, Kilworthy, Muskoka.

NOTE HEADS AND ENVELOPES.—We offer a special bargain just now. 20lb note heads with printed heading, \$1.75 per 1000. Envelopes, \$2.00 per \$1000. See advt. THE D. A. JONES CO., Ltd., Beeton, Ont.

SMOKERS.—We have 10 No. 1 smokers and 26 No. 2 smokers in stock, which we will sell cheap to clear them out. They have the old style inside spring, but are otherwise just as good as new ones. Price, No. 1, \$1, by mail, \$1.40; No 2, 75c., by mail \$1.00. The D. A. JONES CO., L'td., Beeton, Ont.

WONDERFUL OFFER FOR 30 DAYS.

I will sell all in one piece sections for 30 days or while this advertisement appears here as follows:—4½x4½lb, 1000, \$4.50; 5000, \$20; 10,000, \$38. Send two cent stamp for sample. All Apian supplies on short notice and cheaper than ever. Bee-Keepers' Advance for one year and a Cold Blast Smoker, all for 75 cents. We are offering special rates on Honey Cans. We are manufacturing the Best Honey Can for shipping that is now offered. This can can be made air-tight for shipping, which is more than can be said of other cans. They can be shipped with perfect safety. Our 60 lb. square cans boxed with nice planed lumber is taking the lead. Drop a card for our special low rates, the lowest ever offered.

We guarantee satisfaction. Our new Honey Extractor at the old prices. Comb foundation a specialty.

S. P. HODGSON,
Horning Mills, Ont.

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't	Sept.
Bees, per ¼ 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 ¼ 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" hives.. You may have whichever style you desire. Be sure to specify when ordering.

Of course the only way for the above to go is by express.

QUEENS.

	Homebred	Untested	Tested	Selected	Virgins
May	2 00		2 50	3 00	
June	1 50	1 25	2 50	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	Carniolan 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 Canadian Honey Producer
A MONTHLY BEE PAPER,

Forty cents per year and three subscriptions at one time to any address, Sr. Sample copies free, also manufacturers of all kinds of bee-keepers' supplies. Address,
E. L. GOULD & CO.,
Brantford, Canada.

52

BEESWAX WANTED!

Will pay 32 cents in cash or 35 cents in trade for any quantity of pure Beeswax.

Comb Foundation for sale, to suit any size frame or section. Wax worked on shares or for cash. All freight to Campbellville station C.P.R. If by mail to

ABNER PICKET,
Nassagawaya P.O., Ont.
52-6mo.

Agent for D. A. Jones Co.'s supplies.

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Wishes to say to the readers of the CANADIAN BEE JOURNAL that he has concluded to sell Bees and Queens during 1887, at the following prices:



- One Colony Bees.....\$7 00
- Five Colonies..... 30 00
- Ten Colonies..... 50 00
- 1 untested Queen..... 1 00
- 3 " Queens..... 2 00
- 1 " Queen reared by natural swarming..... 1 50
- 3 Ditto..... 3 00
- 1 tested Queen..... 2 00
- 3 " Queens..... 4 00
- 1 " Queen by natural swarming..... 3 00
- 3 Ditto..... 6 00
- 1 tested Queens, 1886 rear ing, each..... 4 00
- Extra Selected, 2 years old each..... 10 00

Circular free, giving full particulars regarding the Bees, and each class of Queens. Address,

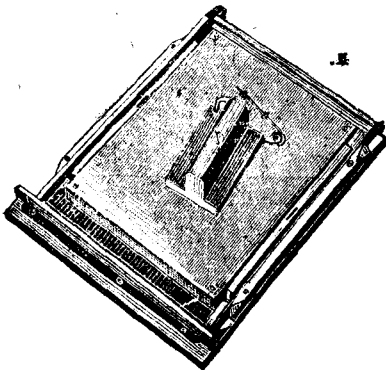
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- For Jones' Frame S. W. Hive.....\$1 25
- " " " Combination Hive..... 1 25
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—OF—

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We have on hand several Volumes, unbound, of Volume I, CANADIAN BEE JOURNAL, each lacking one or two issues.

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- If wanted by mail send ten cents additional.

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Better and Cheaper than ever. Untested Italian Queens during the month of June \$1.00 each tested, \$2.00.

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OLD RELIABLE HEAD QUARTERS FOR Bees IN NUCLEI OR BY THE POUND
ITALIAN QUEENS also a Specialty. Prices very low. Six Years' experience in selling bees and queens. Hundreds of customers, and I think not a dissatisfied one. Instructive circular and price list free.

32-5m

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Perfection Cold Blast Smokers, Square Glass Honey Jars, etc. Send ten cents for "Practical Hints to Beekeepers." For circulars apply

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- 1884 London " " 1st " 1st
- 1885 Toronto " " 2nd " 1st
- 1886 Toronto " " 1st " 1st
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I began the manufacture of comb foundation in 1886 and I am glad to say that I have not had the first complaint so far. Brood runs from 5 1/2 to 6 feet to the lb.; section about 11 ft.; shall commence making, weather permitting, April 15th. Brood cut to almost any size. Section foundation unless otherwise ordered is made in strips 3 1/2 x 1 1/2 and 3 1/2 x 1 1/4. I will make up wax for you, you paying all freight or express charges both ways. Brood 10 cts per lb.; Section, 20 cts. per lb. No circulars. Prices on foundation on application.

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51-tf.

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Beeswax Bleachers and Refiners. **Syracuse, N.Y.**

M. H. HUNT.

Manufacturer and dealer in everything needed in the apiary. Alsike clover seed cheap and can be shipped from Windsor, Ont., if wanted in Canada. Send for free price list.

M. H. HUNT,

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48-51

FRIENDS IF YOU ARE IN ANY WAY INTERESTED IN

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We will with pleasure send you a sample copy of our **SEMI-MONTHLY CLEANINGS IN BEE-CULTURE**, with a descriptive price-list of the latest improved Hives, House 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 plain by

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ITALIAN BEES AND QUEENS FOR 1887.

Tested Queens before June 15th, \$1.50 each. Untested Queens, \$1.00 each. After June 15th, 25 per cent less. Bees by the pound same price as untested queens.

I. R. GOOD,

Nappanee, Elkhart Co., Ind.

41-48

TORONTO SUPPLY DEPOT.

AT BEETON PRICES.

MR. JOHN MCARTHUR,
845 Yonge Street, Toronto, Ont.

For the convenience of bee-keepers living within driving distance of Toronto, and inside the city limits, we have established an agency at the above address. All orders which he may be unable to fill promptly will be sent on to Beeton and be filled from here. He will have on hand a supply of hives, sections, foundations, knives, etc.

THE D. A. JONES CO., Beeton.

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My Queens are all bred from selected Imported and home-bred mothers, and are as good as the best. Give me a trial order.

Tested Queens \$1.00 each. Untested, 75 cts. each: 5 for \$3.00; 12 for \$6.50. Bees by the pound, same price as untested Queens.

Never had Foul Brood here.

ISRAEL GOOD,

10-2m

Sparta, Tenn.

1887 QUEENS 1887

I shall continue to rear a limited number of Queens this season at \$1.00 and \$2.00 each. Pure Italian and Heddon's Strain a specialty. Fertilizing Apiaries isolated from other Bees. Can spare a few full colonies now.

F. A. GEMMILL,

6-3m

Harmony Apiary, Stratford.

FOR SALE CHEAP.

100 Colonies of Bees, Italians \$7.50, Hybrid \$6.50 on 8 frames. Dealer in Apiarian Supplies, Italian Bees and Queens.

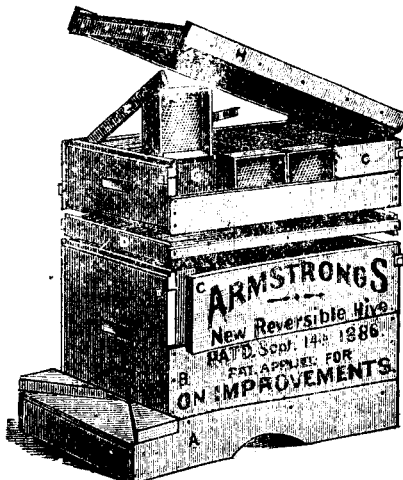
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JAMES ARMSTRONG,

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Cheapside Ont.

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NEW REVERSIBLE HIVE.

The cheapest, simplest, and most practical hive ever offered to the public. J. Vallentine, of Carlinville, Ill., says: "I would freely give \$100 if my 100 colonies were in hives just like them." Sample hive complete and painted, \$2.50. Send your name and post office address plainly written on a postal card and receive my 32 page illustrated descriptive catalogue free. Address,

E. S. ARMSTRONG,

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and Bee-Keepers,**

SEND FOR ESTIMATES FOR WHATEVER
YOU REQUIRE IN THE WAY OF

**CATALOGUES,
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LABELS,
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A large number of cuts in stock of
which patrons have free use.

**THE D. A. JONES CO., Ltd.,
BEETON, ONT**

up, and of the various parts made up, so that should there be any portions of the hive you do not wish you can easily ascertain what deductions to make.

Sample hive, made up..... \$2 90
Add ten per cent if you wish the hive painted.

PRICES OF PARTS.

Bottom stand.....	made up flat	12	09
Bottom-boards.....		15	11
Entrance blocks (two).....		03	08
Brood case, invertible, including set screws and frames wired when made up or punched for wiring in flat.....		60	45
Honey Board (wooden) slotted, invertible.....		10	07
Honey board, metal and wood, invertible		30	25
Surplus case, invertible, including wide frames and separators.....		60	50
Cover, half bee-space.....		15	13
Sections, full set of 28 in flat.....		15	15
Tin Separators, seven to each.....		10	10

The cost of one hive such as you would receive, in the flat, would therefore be (without honey boards of either description) \$2.15. Add the cost of whichever style of honey-board you prefer, and you get it exactly. If you do not designate either we shall always include the wooden-slotted one.

DISCOUNTS IN QUANTITIES.

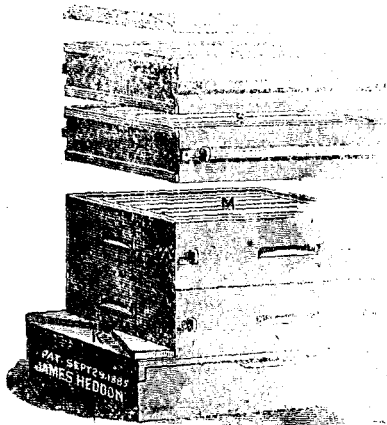
For 5 hives or more, 5 per cent. ; 10 or more, 7 1/2 per cent. ; 25 or more, 10 per cent. ; 50 or more, 15 per cent. These discounts are off the prices quoted above, either nailed or in flat.

INDIVIDUAL RIGHTS.

We will sell individual rights to make for one's own use, and to use the new hive or any of the special features of Mr. Heddon's invention at \$5. We do not press the sale of these rights, believing that the hives cannot be made to good advantage by anyone not having the proper appliances. We will sell however to those who wish to buy, and for the convenience of such we append a list of prices of what we would likely be called upon to furnish in any event :—

Woodscrews per 100, boiled in tallow.....	\$1 25
Tap bits for cutting threads.....	1 50
Tin Separators, per 100 proper width.....	1 50
Brood Frames per 100.....	1 25
Wide " " ".....	1 50

HEDDON HIVES!



We are the owners of the patent on this hive in Canada, and we are in a position to make and sell the hive gotten up in any shape to suit the purchaser—either in flat or nailed up.

A complete working hive consists of bottom-stand, bottom-board, entrance-blocks, two brood-cases, one honey-board, two surplus cases (in good seasons we often use three surplus cases on the hive at one time) and cover. So that if you order these hives in the flat this is just what will be sent you.

Sample hives we make with the brood-frames wired and the surplus cases supplied with fifty-six 4 1/2 x 4 1/2 7 to the foot sections. These are designed for testing the complete working hive.

In quoting prices of brood-cases and surplus cases, the set-screws, brood-frames and wide frames with their tin separators are always included, both in flat and made up. We quote the prices of sample hives made

Heddon's 1887 Circular.

NOW READY.

ALL ABOUT THE NEW HIVE.

Canadians who wish my circular to know about the new Hive, ONLY, should send to the D. A. JONES CO. for theirs, as I have sold the patent for all the American British possessions to them, and have no more right to sell the hive in their territory than have they to sell them in the United States.

Address,

**JAMES HEDDON,
DOWAGIAC, MICH.**

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, 18c.; 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.

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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.

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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.

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

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

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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.

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ELLISON'S SPECIAL PRICE LIST OF

ITALIAN QUEENS AND BEES.

	UNTESTED ITALIAN QUEENS, WARRANTED FERTILE.			each.
	APRIL.	MAY.	JUNE.	
Single Queen	\$1.25	\$1.00	\$1.00	each.
6 to 12 Queens	1.00	.90	.75	"
1 TESTED Queen	2.50	2.00	2.00	"
6 to 12 Queens	2.00	1.75	1.00	"
1 Two Frame Nuclei Untested Queen	\$2.50.			

Special discount to dealers, and 10 cents 8 oz postage to Canada.

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Are unsurpassed for Quality and fine Workmanship. A specialty made of all styles of the **Simplicity Hive.** The **"FALCON" Comb Hive**, with movable upper story, continues to receive the highest recommendations as regards its superior advantages for wintering and handling bees at all seasons. Also manufacturer of **"FALCON" BRAND FOUNDATION.** Dealer in a full line of **Bee-Keepers' Supplies.**

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MANUAL OF THE APIARY

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Prices for S. H. Hive \$1.50 Flat \$2.50 made up.
Ext'd H. Hive 2.00 " 3.00

His new Honey Cloth a perfect success, cheap and easily made goes with each hive. Each hive all complete including sections. The A. I. O. P. Sections, Frames, Smokers, Foundation, Honey Crates, Honey Knives, Extractors &c., &c., made and kept constantly in stock, sold at current prices, all first class.

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These are for pasting on the tops of cases.
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" " 100. 25 by mail, 27
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Manufacturer and dealer in Bee-keepers' Supplies, Hives, Smokers, Sections, Foundation, Bees, Queens, etc. Also breeder of ten varieties high class poultry. Eggs \$1 per setting.

THE BEST QUEENS

Are those that produce the best bees for gathering honey and are gentle bees. These are the Queens I purpose breeding from and believe they are superior to imported queens. I have selected three out of over 200 as producing bees famous for honey gathering, and originally bought from

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Not content with these, I have purchased from

MR. G. M. DOOLITTLE

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Prices for 1887 as follows: Tested queens on June 5th or after, \$2; Hybrid queens on June 1st or after 50 cents each. Dollar queens after June 15th from Doolittle's Italians or Heddon's strain \$1; 10 per cent off to any person ordering one dozen during the season of 1887; 15 per cent off to any one ordering one dozen at one time (can have them sent three at a time if desired). Will endeavor to be prompt in shipping. In ordering please state whether from G M Doolittle's selected Italian queens or from my selected Heddon strain. Address,

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Italian bees and queens in their purity, for beauty and working qualities are equal to any in the United States or Canada.

Comb Foundation, 30 to 40 cents per lb. Untested Queens \$1 each or six for \$5. Tested Queens \$2.50 each and bees by pound same price as untested queens. Frames of brood same price

Our Queens are reared from the egg in full colonies. We use imported and choice homebred Queens to breed from. We are within half a mile of two railways—one direct line to Cairo, Ills. Four daily mails, we can fill all orders next day after they arrive, or by return mail Satisfaction and Safe Delivery Guaranteed.

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Flat Bottom Comb Foundation. High side-walls, 4 to 14 square feet to the pound. Wholesale and retail. Circular and samples free.

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