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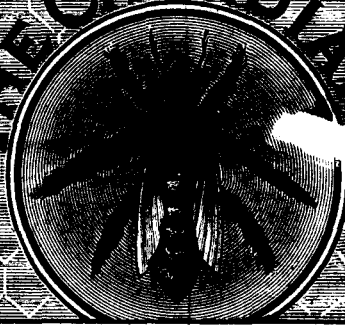
VOL. IV, NO. 8

1888

MAY 16

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

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ERRORS.—We make them: so does every one, and we will cheerfully correct them if you write us. Try to write us good noticeably, but if you cannot, then write to us any way. 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.

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TO CONTRIBUTORS

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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BEES AND HONEY.

TO ALL that are interested in Bees and Honey, send for our Free and Illustrated Catalogue of Apiarian Supplies. Address

M. RICHARDSON & SON,

Port Colborne, Ont

100 COLONIES OF BEES FOR SALE OR EXCHANGE.

For Bee Supplies or anything that I can use. Beeswax wanted. Dealer in all kinds of Bee Supplies.

JAMES ARMSTRONG,

CHEAPSIDE, ONT.

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Tested, ready in March. Untested, by April 1st. Contracts taken with dealers for the delivery of a certain number of queens per week, at special figures.

FOUR - FRAME NUCLEUS,

with pure Italian queen, containing 3 pounds of bees when secured—in April and May, \$4.00; after, 25 cts. less. Safe arrival and satisfaction guaranteed on all queens and nuclei.

Early Bees from the south shipped to Canada without loss.

For more particulars, send for Tenth Annal Catalogue.

P. L. VIALLO.

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—THE—

-POULTRY MONTHLY-

is the best journal of its kind

INTERESTING & INSTRUCTING.

ITS PAGES ARE GRANDLY ILLUSTRATED

each month with cuts of the various birds and is also full of good reading matter and is

FREE FROM PERSONALITIES.

Send 10c. for Sample Copy or \$1.00 for a year's subscription. Address

CHAS. BONNICK.

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QUEENS.—Beautiful fdn., cut to fit frames, 48c. for brood and 58c. for sections. Wax made up, 10 and 20c. Sections, No. 1 dovetailed or one piece \$5 per M. Yellow ITALIAN bees in 10-frame hive, \$8. HYBRID bees. SMOKERS \$1. If you are in want of anything let me hear from you. F. W. JONES, Bedford, Que.

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At hard pan prices.

WILL ELLIS,
ST. DAVIDS, ONT.



ITALIAN BEES AND QUEENS. Two or three Frame Nuclei or Full Colonies at lowest price. Every Queen bred from Imported stock and guaranteed second to none. Address

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Of pure Italian Bees in L. Heddon hives \$ or shipping boxes..... 3 00
Tested queens..... 1 25
Untested " 75

C. WEEKS,
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BRANTFORD, ONT.

All kinds of Bee-keepers' Supplies. Sole dealers in Canada of Dadant's Comb Foundation.

CANADIAN HONEY PRODUCER !

Monthly: June, July and August (3 months) for 10c
Send for Price List, free. Queens for Sale.

BEES FOR SALE !

I will sell about 50 colonies of bees at the following rates :

24 and under..... \$7 50
25 and over 7 00

They are in Jones' S.W. and Combination hives. FOR DELIVERY IN MAY at Beeton or Alliston R.R. station.

SAMUEL BRAY, Beeton, P.O.

THE BEE-KEEPERS'

REVIEW.

For May is now out. Having regained the time lost during his illness, the editor will hereafter take pride in getting out the REVIEW promptly on the 10th of each month. The special topic of the present issue is "Hiving Bees." The review of Mr. Cheslire's work, which was begun in the March number, is finished in the present issue. We have a surplus of numbers containing this review, and so long as they last, three numbers will be sent free to all who apply. Price of the REVIEW is 50 cents a year.

THE PRODUCTION OF COMB HONEY.

A neat little book of 45 pages, price 25 cents. The REVIEW and this book for 65 cents. Stamps taken either U.S. or Canadian. Address

W. Z. HUTCHINSON,

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We make a specialty of Apiarian Printing, and have unequalled facilities for Illustrated

Catalogue and Label Work.

Note these figures, which include printing.

	500	1000
Note Heads, good quality.....	\$1 15	\$1 90
" linen.....	1 25	2 00
Letter Heads, Superfine.....	1 75	2 50
" Linen.....	2 00	3 25
Envelope, business size, No. 7,		
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" Extra quality.....	1 35	2 25
Business Cards.....	1 50	2 50
Shipping Tags, 40c., 45c. and 50c. per 100.		

Our new book of labels contains nearly 100 specimens of elegant honey labels. Write for prices for any printing required.

THE CANADIAN BEE JOURNAL,
7 BEETON.

EXCHANGE AND MART.

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is specially intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

HONEY.—We can take all that offers in exchange for supplies, at prices found in another advertisement in this issue. **THE D. A. JONES CO.,** Beeton, Ont.

\$1.00 Will secure you by mail, post paid, 250 Noteheads and 250 Envelopes with your name, business and address printed on the corner of each. Send in your order now. **THE D. A. JONES CO.,** Beeton, Ont.

QUEENS FOR SALE.—Tested Italian and Heddon strain Queens, also a few Hybrids. Price 60c., \$1 and \$2 each, according to kind. CAN SHIP AT ONCE. **G. A. DEADMAN,** Druggist, Brussels, Ont.

ELLISON'S EARLY ITALIAN QUEENS!

	April.	May.
1 Untested Queen.....	\$ 1 15	\$1 00
3 " Queens.....	3 00	2 50
1 Tested Queen.....	2 50	2 00
3 " Queens.....	6 00	4 50

Many of the above will be reared in the height of the swarming season and all will be nearly, if not quite as good as the best swarming queens. In every case safe arrival and satisfaction guaranteed.

W. J. ELLISON,
Stateburg, Sumter Co., Sth. Carolina.

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Sent free. Address

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Wenham, Mass., U.S.

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On Sections, from prices given in price list. We make four grades of Foundation—heavy brood, light brood, thin and extra thin for sections. Send for free price list and samples. Special prices to dealers.

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NEAR DETROIT.

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I have moved to Shelburne, and have purchased a very large factory. It is the largest factory in which bee supplies are manufactured in Canada. Our dry kiln cannot be surpassed. We are ready for a rush! Sections away down. The best manufactured Foundation in Canada will soon be ready to ship. Send for Price List before purchasing elsewhere.

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Shelburne, P.O., Ont.

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25 PAPERS GARDEN SEEDS AND THE BEE-KEEPERS' ADVANCE.

One year for only \$1. These seeds are just such seeds as every one having a garden wants and buys, paying 5c. to 10c. per package, the retail price of the seeds is \$1.75. We give away our paper and sell you the seeds at about half price to introduce both to Canadian beekeepers. Seeds will be sent post paid and we guarantee satisfaction. Address,

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- M. J. DICKASON, Hiawatha, Kans.
- ED. R. NEWCOMB, Pleasant Valley, N.Y.
- J. W. PORTER, Charlottesville, Va.
- J. B. MASON & SONS, Mechanic Falls, Me.
- Dr. G. L. TINKER, New Philadelphia, O.
- D. A. FULLER, Cherry Valley, Ills.
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- GEORGE E. HILTON, Freemont, Mich.
- J. M. CLARK & CO., 1409 15th St., Denver, Col.
- E. L. GOULD & Co., Brandon, Ont.

and numbers of other dealers. Write for SAMPLES Free and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to samples in every respect. Everyone who buys it is pleased with it.

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



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

Vol. IV. No. 8

BEETON, ONT, MAY 16, 1888.

WHOLE No. 164

EDITORIAL

A RATHER strange coincidence occurred a day or two ago. On the day mentioned we received three registered letters all containing orders and all containing cash to cover same from customers all the name "Elliott" and each from a different section of country. Probably they are in no way related, but they all happen to be in the bee business. Our order clerk thought this worthy of note, and called our attention to it.

We beg to call attention to the prize-list of the Industrial Exhibition Association in the apiarian department, for the coming fair.

The following item is clipped from the *Empire* of Thursday.

Angus A. Taylor and Duncan Dewar, of Belmont, were in St. Thomas on Wednesday and purchased several hives of bees. While driving home the bees escaped from the hives and attacked the horses, which ran away, throwing the occupants out, and Mr. Dewar was severely injured. This morning he was seized with paralysis, and it is feared he cannot recover.

Only yesterday we received instructions from the gentleman who sold the bees to the parties named in the above paragraph to forward sample copies of the *BEE JOURNAL*, and we are surprised to learn that one of them has since met

with this accident. We do not understand how the hives could have been arranged that the bees could get out to any extent without having been noticed and if noticed it would have been little trouble to make them secure so that but few would have escaped.

OUR OWN APIARY.

WIRING BROOD FRAMES.

WHETHER or not it is economy to wire brood frames is a question which is open for discussion.

For our own part we think it an unnecessary trouble and expense, and we have never practiced it, not even in the Heddon hives which we have in our yards. We have never used it at all. One point of value claimed for it is the safety in shipping, the combs are not so liable to break down, in the rough handling. Our experience has been, however, very free from accident in this particular. Probably one dozen combs would cover the total loss experienced by our customers. Of course we are always particular to select strong, solidly built combs for the purpose. If wired frames are to be used it will not be out of place to describe the method of wiring. First, do not use starters on wired frames. If you do, however, let them be placed between two full combs in the hive, and for that matter, if you have the combs to spare, it is always best to place the frames *filled* with foundation

between the full combs. This insures straighter combs and has a tendency in favor of less drone comb. In frames with a light top bar it will be necessary to use a folded piece of tin in the centre of the frame to hold the wires taut, and keep the top and bottom bars relatively the same distance apart all along. Punch the holes three to four inches apart, having the outside wires say one inch each from the end bars. Then fasten the first ends by a small tack at one side and go on with your sewing down and up until you get over to the other side, where it is again fastened with a tack, or small wire nail. On page 30 of the BEE JOURNAL for vol. 4, Mr. R. Knechtel gives a very good plan of wiring frames from the spool wire.

THE CHAPMAN HONEY PLANT.

We sowed a quantity of this seed last year, and we have at this writing perhaps 5,000 fine healthy looking plants about six inches high. We sowed it broadcast, and consequently will have to do a lot of transplanting, as it is much too thick. We will not need it all, so that if anyone wants to try a number of these plants they can have them at \$1.50 per hundred, boxed and packed ready for shipment. For 50 plants 85 cents.

THE WORK OF THE WEEK.

Our foreman is yet able to look after all our apiaries. He takes in a new one each day, thus getting to each every third day to see that everything is all right. We do not want the novice to understand that every time he goes to a yard he has to take a look at every hive. Such a thing would be folly. On the first examination all the colonies were marked as to condition, and some of them have never been bothered since, while those that were marked for "future attention" have received it. Yesterday he went over the colonies requiring this attention at the home yard and he found them all in good condition—much better than ever before at this time of year. Some of the colonies are brimming over with bees. Brooding is going on nicely in all the colonies, and in his examination the foreman made exchanges of frames of brood and larvæ, such as we mentioned in Our Own Apiary in the last issue.

IMPROVEMENTS IN SMOKERS.

We have been making some improvements in smokers the past month, and our experiments prove that they are an advantage. In the regular Bingham smoker the fuel was put in by removing the nozzle. This was found to be a very awkward way of doing it, we have therefore made the end of the fire-barrel movable, and it can now be removed and fresh fuel put in at pleasure without the chance of burning the fingers which you were apt to meet with before. The guard or grate which prevents the fire from falling down into the bellows, is fastened to the movable end and is so placed that when shoved on the smoker the grate clears the draft tube. The grates used in the nozzle to prevent the embers from falling in on the bees, was formerly held in place by clock springs, we now make them a part of the nozzle and fasten them into position permanently. Should the nozzle become clogged there will be no difficulty in clearing it out by using a piece of stiff wire. The Clark smokers which we are now making have all the latest improvements, and we think will give good satisfaction. We shall try them in our own apiary shortly and report.

HEATHER.

WHAT the above can be grown on this side of the "big pond" seems possible. The following notes from the works of botanists are sent us by Mr. J. Hinton, Sherbrook, Que. :

From Henderson's Book of Plants.—Callunna or heather.—*C. vulgaris*. The only species is the well-known heather of Scotland, popularly known as Ling or common heath. It has become naturalized in a few localities in this country. It is reported at Twerksbury, Mass, and at Cape Elizabeth, Maine. It is also found sparingly in Nova Scotia and Newfoundland.

From Gray's Manual of Botany.—*C. Vulgaris*, Salisbury (*C. Atlantica*; Jour. Bot., vol. 4, page 305 and 53. *Erica vulgaris* L. Low grounds, Twerksbury, Mass., Jackson Dawson & Co., a small patch; Borders of forest on Cape Elizabeth, Maine, Mr. Richards from Dr. Wood. Also Nova Scotia, Cape Breton and Newfoundland. See various articles in *American Journal*. July and August.

SHESHIRE'S BEES AND BEE-KEEPING

WE must apologise to the author for our delay in mentioning the receipt of Vol. II of his book. It came to us sometime since, but owing to pressure of other work we have been unable to get through with all of it. We shall take it up chapter by chapter and probably have, as it were, a continued story, reviewing as much each week as we find time and space. Reviews of this work are at present progressing in both *Gleanings and Reiew*, and there will doubtless be sufficient variety in the style of the matter commented on to make all three readable.

This second volume treats of the practical side of bee-keeping entirely, but in a scientific way, while Vol. I devoted itself to the purely scientific.

CHAPTER I.

BEES UNDER PROPER CONTROL.

The author treats the subject in a masterly manner, going into detail wherever needed and setting forth his views in a very intelligent and readable style. He advises that until the apiarist has gained confidence in himself and loses that nervous feeling which is almost sure to reap for itself all the stings that are going, India rubber gloves such as we catalogue are recommended, but with a lining. Although the former are less clumsy, yet they are very troublesome to get on and off. The author explains that this difficulty may be overcome to a great extent by the use of chalkdust. What is said of bee-veils is common to most other guide books: He upholds the position taken by Mr. Jas Heddon, with reference to the statements made concerning the result of "smoking" bees. He says, "I am pleased to find that Mr. H. combats the position of Langstroth whose error may often lead to loss of time and loss of command also. Mr. Heddon says: 'We have been told that the reason the application of smoke pats bees in a friendly attitude is because it frightens them, which causes them to fill themselves with honey, and when so filled they cannot, without disgorging the same, assume an attitude in which they can use their sting. While this teaching may be correct* in part I think

the effect of smoke is to frighten out of them all idea of battle. It seems to instantly impress them with the utter uselessness of opposing "an enemy with a breath like that."

The Clark and Bingham smokers are both criticised and the decision is that they are "sixes." The Bingham smoker as described by him does not have the nozzle grated, the same as are all of those sent out by us. Without this it seems to us there is much more danger of live coals or cinders falling out upon the bees. We have made quite a number of improvements in these smokers which are described in "Our Own Apiary" in this issue. Carbolic acid is also mentioned as a "quieter," but it is not recommended to the "every day" bee-keeper. The smoker is the cheapest, handiest and best of all.

CHAPTER II.

HIVES FOR BEES.

This chapter contains mostly the general principles to be observed when a future home is being established for a colony. It also treats of the hives in use by the old-time bee-keepers.

CHAPTER III.

HIVES FOR BEE-KEEPERS.

The different hives which have been in use in Europe for the past thirty years are described, together with the distinguishing features of each. Much of this, however, is too intricate and unnecessary for the bee-keeper who looks to his bees for his livelihood, but it is well to understand all the principles mentioned, so that science and simplicity may go hand in hand. We observe that in the hive as made by Abbott Bros., and described here, the makers used perforated metal between the first and second frames, to make the hive a non-swarming one. The sheets of metal would of course run right down to the bottom boards. When young Mr. Abbott was over in Canada we think he stated that they had done away with this feature of their hive because of the impediment to the bees. The experience of some of the best American and Canadian bee-keepers off-sets this however, experiments having been made, proving pretty conclusively that it was little if no impediment. The sale of this queen-excluding metal has reached

*The author says, "This teaching has not a shadow of a shade of truth in it."

vast proportions, and the demand grows apace. The Carr-Stewarton, Cheshire, Rayner, Neighbor, Abbott, Cowan, Quinby, Langstroth, Bingham, Heddon and Howard hives are all described, greater attention being given to the Heddon than to any of the others because of its having but lately come upon the market. The author has some faults to find, but at the same time he finds many good points, which overbalance the poor ones. He objects to the compression of frames by thumb screws, and in this objection he has been borne out by quite a number of those who have used the hive. See our remarks under this head in "Our Own Apiary," page 126. In the Jones-Heddon hive, which was shown at the Indian and Colonial Exhibition, Mr. Cheshire found a number of what he considers to be improvements. One of these is that the "whole of the outer cases whether for breeding or honey," were in all respects alike and completely reversible. Speaking of the hive and its principles generally, he says: "It is narrowness, not patriotism that would deny to one of another country his full need of praise, and I conceive that the unprejudiced will not dispute that the half bee-space in each hive-section and in the bottom-boards; the narrow, abutting edges giving possibility of rapid handling; and the general invertibility of the whole, although associated, perhaps with some crudities, yet mark another hilltop, passed in the progressive march of practical apiculture. Mr. Heddon and Mr. Jones have also, by their hives, brought prominently before us, and have done not a little to settle a question which has been much discussed—viz., the most desirable interspace to allow between brood combs. Mr Heddon makes his frame ends $1\frac{3}{8}$ ins., while Mr. Jones allows $1\frac{1}{4}$ ins. in full, or more accurately $1\frac{5}{16}$ ins., a plan which resulted, apparently somewhat to his own surprise, in the building of worker cells, to the exclusion of drone cells, narrow strips of foundation only having been given." While thanking the author for the compliments paid in the above, we must protest that our surprise was not so very noticeable, when we found that narrow spacing precluded to a great extent the possibility of the building of drone-combs. For

years we have advocated that starters of foundation in frames placed between full combs and closely spaced would give us the result desired.

The conclusions of the author with reference to the statement that inversion is a certain means of preventing swarming because it "destroys the larvæ in the queen cell," are in accord with our own observations. He says: "It is sufficient, at present, to remark that this is only partially true, and that dependence upon mere inversion for non-swarming is delusive."

With reference to the painting of hives, "light colors are preferable" says the author "because they both radiate and absorb heat less than dark ones.

* * * * Bees have the color sense strongly developed, and so are considerably assisted in marking their location by variation in this respect. Where hives are crowded together, the operations of the apiary (often involving the removal of a hive from one spot to another) will be greatly facilitated by having interchangeable roofs, made as dissimilar as possible in tint, while the whole of the hives are alike. Where a hive is removed the roof remains, and so no difference is made in outside appearances, the bees, as a consequence, returning unhesitatingly to their old station and entering the new hive as we desire." What we wish to note is the idea of having the hives all one color and the covers of a different. Have any of the readers of the BEE JOURNAL tried this plan of moving colonies, and leaving the hive covers in the same place. If so, with what results?

The next chapter treats of "Natural Increase" and it will, with succeeding chapters receive attention in future issues.

For the Canadian Bee Journal.

BEE NOTES FROM SWEDEN.

WINTERING IN LAT. 60° .—SCHROKER'S CURE FOR FOUL BROOD.—QUEEN-EXCLUDING SECTION FOUNDATION.

MR. BRAY'S underground clamp came too late to be of any use to me; consequently I put my hives in the ground as usual, covering them with 34 inches of straw and 12 inches of dirt. I hope they will all winter successfully. This winter the thermometer showed 22° and farther up in the country 37° .

for weeks, the snow covering two, four and six feet. As for bees and for wintering them properly, I will tell you a story. In the autumn of 1883 a cottager of this country, 'a bee-keeper of days gone by,' living at 60° N. Lat., had a visit of thieves to his bee yard, and in the middle of the said month he lost one skep with its inhabitants, and it was a very heavy one. The winter was rather cold, but snow fell in December, and in March it was very deep. In March his daughter was going to their pasture ground, intending to gather some twigs for fuel, and when there she accidentally trod on this very hive, quite buried in the snow, two or three feet deep. She brought it to her father, who cleaned the snow off it. The skep lay on the ground bottom up, without a bottom board; consequently the skep was full of snow. When cleaning it he found that the combs were nearly all taken away, as was the case with the honey too, still there were some small pieces of comb left, and on those hung a lump of bees, which, when disturbed (being in a warm place) wakened and were very lively. In his opinion the bees were of no use to him, so he killed them, without previously trying to find the queen, although I believe she was amongst them, because if not probably they would not have stayed so many months in a despoiled home. What is your opinion of the McFadden way of wintering? These bees were more carelessly treated, and still they lived. We try to keep the bees too warm, perhaps.

Some few years ago as a trial I inoculated or willingly infected a colony of mine with the foul brood disease, treated them in the way you had advised by starving them, and I succeeded. In a copy of the *Luxemburgian Bee Journal*, Mr. Schroker, a clever bee-keeper, has for some years treated his foul-broody colonies in this way.

Carbolic acid alone, does evaporate too quickly, and the bees cannot stand the smell and immediately run out of the hive. On the other hand, if well mixed with tar of wood, always in equal parts, the bees seem to tolerate the smell very well, continuing working; the evaporation being in some way retarded. When a colony is sick Mr. S. takes off the combs, the very bad ones are to be melted up, the others to be cleaned by washing them well with a mixture of carbolic acid and water, and then stored until the hive is wanting them again or put back instantly. He then takes two very thin boards (those of cigar boxes will do) and cuts them to suit. Upon this board he places a felt, quite covering it. It should previously be moistened thoroughly in the above mixture of carbolic acid and wood tar. Now, the other board is to be nailed on the first one, this only to keep the bees

from being soiled, but before this is to be done, you have to place some pieces of board or leather 3 m.m. thick, between the boards only, not to prevent the evaporation of the carbolic acid. The little case is to be placed exactly below the frames of the hive, which is to be instantly shut up, except the entrance, of course.

Generally a single portion or dose is sufficient, but after three months it is wise to give it another dose. Next spring you will closely inspect such hives, and if necessary once more you ought to treat them in the same way. *Probatum est*. It will help and destroy the bee lice, too.

Last summer a student in my apiarian school, by name J. W. Carlsgon, would try to compel the queen not to enter the supers or the honey boxes, and that without the use of excluders of any description. He had observed the queen never laying or depositing eggs in irregular cells, and consequently he based his idea on this very fact. He made a press with irregular cells, made the combs and put them at first in the brood chamber, then in supers, and lately in the middle of the brood nest. The result was that not a single egg was deposited by the queen. The cells were always filled with honey. I have used the Heddon hive for two years, but I do not like the thumbscrews at all. In your very valuable journal of October 5th, last year, page 570-1, you speak of your "new super" and of the "reversible honey board" and "super reverser." I suppose these improvements will do away with many troubles in manipulating the Heddon hive. By all means let me know them as soon as possible, and I will willingly pay for it. It is said your improvements will suit any style of a hive. I am very thankful for your BEE JOURNAL, and am always picking up some good advice from it.

HY. STRATHAMMAR.

Gottenburg, Sweden, March 9th, 1888.

For the Canadian Bee Journal.

Five Years' Experience in Bee-keeping.

IN the C.B.J. of April 11, C. H. Corbett, Esq., gives us the result of three years' hard work in bee-keeping. His experience has been that of scores of others. Had we more of these experiences in the bee papers it would be better for bee-keepers. Five years ago I was induced by a friend to try my hand in bee-keeping. The representations were such that I thought there was a fortune in the business, so at it I went. The first thing I did was to purchase the "Bee-keepers' Guide," by Prof. A. J. Cook. I studied this work from beginning to end. I also became a subscriber to *Gleanings*, by A. I. Root. I took this paper for three years

and read everything in it. Then I became a subscriber for the C.B.J., believing that it would be more profitable for me to take a paper that contained more items of news from northern bee keepers, *Gleanings* contained so much southern news, that we, in the north, were sometimes led astray.

I have now had five years' experience with bees; I have not yet obtained the fortune, neither have I been in blighted hopes. The amount of knowledge I have received in bee-keeping, is worth to me all the expense, trouble and hard work I have had during these five years.

In the summer of 1883 I purchased six colonies of bees; some were blacks and some were Italians. From these I took about 40 lbs. of honey. In the fall I put them into winter quarters in a piano box, without any packing, and in the spring I had some honey, plenty of comb—but no bees. In the summer of 1884 I bought another six colonies of bees; from these I took about 50 lbs. of honey. In the fall I packed two colonies in chaff in large boxes, but lost both. I put four colonies in the cellar, which came out fairly good, with one queenless colony, but by spring dwindling I lost all but one colony. During the summer this increased to four, and yielded 50 lbs. of extracted honey. In the fall of 1885 I put four colonies into the cellar, just as I did the year before, with the exception of upward ventilation. I kept the hives closed on top and lost all my bees. In the summer of 1886 I bought one new swarm, wintered it in the cellar successfully, with upward ventilation. This colony came out in the spring of 1887 in good condition, and increased to five colonies, but no honey. I put them into the cellar Nov. 17, giving them upward ventilation. During the winter the thermometer stood from 42° to 38°, until about April 1, when it began to rise a little. I took the bees out of the cellar on the 25th of April. I found eggs and sealed brood, and I think there were some young bees. On the 27th of April the bees were very busy bringing in pollen. On the 8th of October my bees weighed as follows: No. 1, 46 lbs.; No. 2, 47 lbs.; No. 3, 45 lbs.; No. 4, 46 lbs.; No. 5, 38 lbs. On the 25th of April their weight stood thus: No. 1, 30 lbs.; No. 2, 31½ lbs.; No. 3, 30 lbs.; No. 4, 30½ lbs.; No. 5, 23 lbs. The average consumption of honey and loss of bees was 15½ lbs.

My bees have cost me now \$70; the profits amount to \$61. This includes hives, sections, frames and five colonies of bees, besides the honey we have taken from time to time. Should I reckon the value of five years' experience, the balance would be on the other side.

REV. S. CUNNINGHAM.

WATERFORD, MAY 4, 1888.

This report is well-timed and will be read with interest, we are sure. It gives a history which will cover a great many cases. Do we understand that you have now \$61 worth of bees, hives, sections, etc., as present stock against the \$70 which your bees, etc. have cost you? Then we presume you have had sufficient honey from time to time to supply your wants.

FOR THE CANADIAN BEE JOURNAL.

A GOOD WORD FOR CHAFF HIVES.

SOMETHING ABOUT STIMULATIVE FEEDING.

WHERE!—you have all gone and given your plans for spring management before I had time to write; but I will tell you how we feed to stimulate brood rearing. And here let me say I cannot speak too highly in favor of the chaff hive for wintering and springing bees. We have wintered in frost-proof repository, and in a good cellar, but the chaff hive is best, and we leave the chaff on till the bees are actually too warm. And now for spring feeding. We have the upper storey filled with loose chaff. We prefer it to a cushion, for the bees cannot creep up around it. Under this chaff on top of the frames we place our simplicity feeders, a hole through the quilt and a tube running down through the chaff through this, through which we pour a little feed every evening from a can like a coal oil can, keeping the tube corked or they would let the heat escape. This feeding should not be commenced till bees can gather natural pollen, and then continued when they are not gathering any honey. For spring feeding use as many pounds of water as granulated sugar. Keep the bees on just what combs they can cover, giving them room as they need it. This is considerable work, but with an assistant to lift the cover it is quickly done, for it only requires a little feed, say half a tea-cupful per colony. We sold our strongest swarms last spring keeping the weakest except two, and we secured over sixty pounds per colony extracted honey, poor season as it was.

ILA MICHENER.

Lowbanks, May 4, 1888.

Friend Michener has come out at last, and we hope to have him with us regularly in future. Why cannot everyone who reads THE JOURNAL give us ideas every little while. It is worth trying. You not only have the satisfaction of seeing your article in print, but also of having written something that is good to assist your neighbor.

From the Bee Hive.

SPRING MANAGEMENT.

PRESUME that your offer of two queens for an article on "Hints for Beginners," would mean beginners that had never kept bees and wish to start an apiary now. My advice to such would be to get a practical bee-book and study it; for whoever wishes to start an apiary in this age of the world must give some time to the subject. Get your supplies ready; make your hives, and have them all of one size—the L. frame I think is nearest the standard. I like a large two-story hive best, such as I have illustrated in a back number of the *Bee Hive*.

Make two division-boards to each hive, so you can pack and keep the brood warm in spring and your bees that are wintered outdoors, for it does not pay to winter a few colonies indoors as the cost would be too much for a beginner to undertake. When it gets warm enough to buy a few colonies of bees in your vicinity, in old box hives if you can buy them cheap, then transfer them, for this will give you a little experience in manipulating bees. You will have a little trouble in this transferring business that you don't read about, and one trouble will be in making your comb stay inside the frames. If you use sticks or tins they will drop out or be in the way, and if you use strings they will cut into the comb or the bees will pick them in two.

But I have in mind a way that I think would hold the comb in, even if it was all in small pieces, better than anything I have used. You want first to get frames that have no wire in them, then buy a little poultry netting and cut it in pieces that will just go around the frame and fasten, but not getting it so wide that it will reach by the ends of the frame. When you are ready to transfer get a wide board, and after you have tacked one side of this poultry netting to the upper side of the top-bar of your frame, lay it down flat on this board (or some other level surface) with the netting underneath; then after you have filled the frame full of comb bring the netting over and tack to the other side of top-bar. When you have it all finished it will have the appearance of pieces of comb caged up in the frame.

I will further add that if you have not comb enough to fill a frame and you can not get the under part of your comb so you can spring a stick underneath the comb, from end-bar to end-bar, so as to hold it up against the top-bar, you want to take a few strips of tin, having them long enough so you can fasten one end onto the wire netting above the underside of the comb on one side, and then poke the tin around under

the comb, and bend the other end over the wire in the same way, above the other side of your wire netting. You want to use strips about $\frac{1}{4}$ inch wide, so as not to cut into the comb. Wide strips of cloth would do if you have no tin.

After the bees have well fastened the comb you can take your netting and tin off. If there is not much honey coming in you had better feed. Feeding will not hurt bees in spring. But if you want the full benefit of the feeding you must know when the honey harvest is coming, and feed your bees six weeks previous to this time; say about the first of April for fruit bloom; first of May for clover and so on. Feeding is not the only way of increasing bees, for if the brood-nest is not kept sufficiently warm the bees will dwindle away in spite of you. You will often see larvæ being dragged out of the hive on this account; there being too much room in the hive for the bees to keep up the desired heat.

In this case you must make the brood-nest smaller, to correspond with your bees, by taking out a few frames and moving your division-board up to the bees. Your bees should cover every frame, and when you see brood all capped over in the middle frame, place one of your outside frames next to it, and when all of the frames are filled with brood and well covered with bees, put a frame filled with comb or foundation in the center, spreading the brood-nest for this purpose. Work in this way slowly and carefully, keeping the brood-nest always warm with your winter packing till warm weather sets in, and you will soon have a fine colony of bees that will do to divide if you do not wish them to swarm naturally.

Swarming is the better way for a beginner, for if he divides he is apt to divide too much. When hiving a swarm never carry the hive to it, but take the swarm in a box or something to the hive (after you have placed the hive where you wish it to stand); shake them onto a sheet placed before the hive and they will go in if it is carefully done by dropping a few bees first, and when these start in shake the rest down on the sheet. If you want surplus honey in sections you must also keep that department of your hive warm so the bees can work the wax easily; but don't let the sun shine on that part of the hive where the sections are as to make it so hot that the bees will be forced out. There is a good deal more to be said but it will not do to make this article too long, besides if you get a good book, like A. I. Root's A B C book, you will find in that all you can remember and practice the first year; but I want to add one more item, that is always keep your face covered with a veil

and work carefully about the hives and don't try to show off.

J. L. HYDR.

Pomfret Landing, Conn.

From *Gleanings*.

A NEW ARTIFICIAL COMB.

A KIND LETTER FROM C. J. H. GRAVENHORST.

ONE day in the month of September last year, I received a letter from a friend, a bee-keeper, Mr. Koerbs, at Bad Berka, in Tem, Germany, in which he told me he has been successful in producing a new comb foundation. For a few years he had his invention subjected to test, and found that it works very well. Careful observation of the bees, suggested by a remark in the third or fourth edition of my book, "The Practical Bee-keeper," had prompted him to make experiments. His new combs, Mr. Koerbs told me, had the following advantages: They were made of extra fine beeswax, by means of a hand press, and were not used by the queen for breeding, even if the combs were inserted in the brood nest. 2. They were very durable. 3. The most delicate combs would stand the use of full force in extracting the honey. 4. The honey is extracted very quickly, the operation requiring scarcely half the time it takes to empty their combs. 5. In bad seasons these combs remain empty, not being used for breeding, there being, unfortunately, no honey to collect. 6. The bees do not carry pollen into their combs. The separation of the honey compartment in the hive from the brood nest becomes superfluous. I wrote to Mr. Koerbs that he promised a good deal. Though I had known him as a successful bee-keeper, and fortunate inventor of a very good frame machine, I nevertheless was not over sanguine in regard to his latest invention. But he offered to give the particulars of his invention if I would give him my word of honor not to divulge his secret. Full particulars were given me, and in addition I received one of Mr. Koerbs' artificial combs, completed by the bees, from which the honey had been extracted several times. The matter appeared to me very simple, and I thought, "If this new invention should accomplish only half of what Mr. Koerbs expects it to do, we shall undoubtedly see a great revolution in the manufacture of artificial combs as well as in bee-keeping generally."

In order to enable bee-keepers to manufacture their own combs, Mr. Koerbs has started the publication of a pamphlet, in which his experience, as also the manufacture of the combs and the mode of using them, are described. Any

one who engages to buy of him said pamphlet, at the price of 25c., will, in due course, receive a copy postpaid. The pamphlet would be sent to all subscribers on the same day, in case he could get at least a few thousand subscribers.

But alas! Only 350 subscribers have engaged to buy the pamphlet. Many of the bee-keepers condemned this way and pleaded for a patent. What should he do? Of course he applied for a patent in Germany and Austria, and sold it to Mr. Otto Shulz, one of the manufacturers of comb foundation on a great scale, in Germany. The German and Austrian bee-keepers will, of course, now see that the great benefit of manufacturing their own new comb foundation is thrown upon the shoulders of Mr. Shulz, and every one will pay the money he asks. We shall have only standard comb foundation of the new comb, as no one will be induced to make his own foundation as he has no right to use it. I do not like patents in bee matters. And now the secret! The new comb foundation is one-sided; has prolonged cells; one side of a frame is closed with a tin sheet, covered with wax on the inside, worked in foundation. The bees work out the cells to double the length of the brood cells and fill them with honey only. Many of the readers of *Gleanings* have seen one-sided combs with prolonged cells and full of honey in the old skep, or box hives, and many have had combs with prolonged cells on both sides, filled only with honey. I, for my part, do not doubt that a comb of such qualities as Mr. Koerbs claimed for his, would be of great value to every bee-keeper, if he only understands how to use it in the right way. Let us try the matter and find this right way.

C. J. H. GRAVENHORST.

Dilsuack, Prussia, Germany.

From the Bee-keeper's Guide.

THE BEES LEGS AND FEET.

AT the late bee convention in Chicago, Prof. Cook, of Michigan, gave a very interesting and instructive lecture on the legs of the bee, with illustrations many thousand times magnified. The microscopic study of the bees has lately received a new impetus by the visit of Mr. Cowan, editor of the *British Bee Journal*, who brought to this country a microscope acknowledged by experts to be one of the finest they had ever seen.

In looking at these illustrations it is easy to see how the bees gather up the pollen and store it in their pockets. It would seem to appear by the law of "the survival of the fittest," as age upon age has rolled away, that these baskets

have increased in size. As an illustration, take the island of Cyprus, which, added to a sterile soil, has dry scorching winds, parching everything in the form of vegetation. The inhabitants of this island never feed the bees, therefore those only survive such an ordeal which possess the greatest endurance and the largest amount of stores. Where these are colonies equal in numbers, and some of them store surplus while others are starving, it shows conclusively that some of them possess attributes which are lacking in others. They may have stronger wings, and can fly farther and faster, or have larger tongues, which enables them to reach nectar which the others cannot, or have larger receptacles for carrying pollen, thereby enabling them to rear more workers.

This fall I was showing a visiting bee-keeper a feeder which was merely a solid block of wood with holes cut into it by a wobbling saw, into which the feed could be poured. He remarked that if I put that on the hive, full of syrup, in a short time it would be full of drowning bees. It had been given to me for trial, and I had never used it. As I was then feeding a colony short of winter stores, I filled it and put it on a hive. When I went to look after it I found the feed all gone, the feeder dry and clean, and no dead bees in it.

I then filled some wooden butter dishes, and found that without any floats it was all carried down, without any being drowned. I was puzzled at this, for if a vessel of earthenware, tin or glass had been used in this way it would have been full of drowning, writhing bees. It was made plain at the convention why this is so. When a bee walks on wood, his tarsi or feet take hold with a sort of grip, but he cannot do this on a smooth surface like glass. When a bee's feet are dry, and it walks upon glass or tin, its feet secrete a sticky substance which enables it to hold to the surface.

If a pane of glass is examined with a microscope after a bee has run up and down it, its tracks can be seen, and this is what discolors the white comb, if it is left long on the hive after it is sealed. I have often noticed that glass was sticky after bees had been running up and down on it, and supposed that it was a wax secretion. The delay of winter has allowed the bees time to get ready for cold weather.

MRS. L. HARRISON.

Peoria, Ill.

Convention Notices.

The next regular meeting of the Norfolk Bee-Keepers' Association will be held in Delhi on Saturday the 2nd of June. All interested in apiculture are invited to attend.—C. W. CULVER, Secretary.

From the Rural Californian.

DRONES.

SOME bee-keepers are of the opinion that drones were only made to be killed, and that any and all means employed to root them out of the apiary is commendable, and just there they make a serious mistake. We have repeatedly asserted that the drone is a prime necessity in a hive; that an abundance of them will insure success if they are the right kind; that the drone determines, in a great measure, the quality and usefulness of the worker bee, and is responsible for the blood and good behavior of the queen bee. It is true the drone gathers no honey, and don't seem to want to employ his leisure moments at any particularly laborious business, but, nevertheless, he does a vast amount of good and very important work. When the foundation comb is put into the hive the wax forming it must be heated until it is so pliable that the workers can draw it out into comb to be filled with honey. The animal heat generated in the hive by the big drone does the warming up of the wax so that the worker can draw it into comb. The drone maintains the heat in the hive necessary to hatch the eggs of the bees, drones and queens, for all three of the different sorts of eggs are being hatched at the same time, and the prosperity of the hive depends largely upon the full development of the rising generation of bees, which cannot be secured in its greatest perfection by any means so well as by a good, strong, healthy contingent of drones holding the fort, until the temperature of the hive reaches that point where their presence is not required, then the drone takes an airing and enjoys himself buzzing about the hive until the temperature is lowered and the drone goes back to his occupation of making things warm in the hive. Virgin queens are not nearly so likely to be lost where the apiary is well supplied with drones as where they are scarce, for the queen in her maiden flight finds a mate so near home that she hardly ever misses her own hive on her return. Much more could be said truthfully as to the usefulness of the drone in the hive and apiary but the above ought to entitle him to a place in every hive.

THAT CITY ORDINANCE.

We were at E. C. Burlingame's office on New High street just opposite the jail, on the morning of the 11th of April, and while there observed a swarm of bees hovering, or rather "roaming at large," at the New High street entrance of jail. We thought of that city ordinance that imposes a penalty of five hundred dollars upon any person who keeps bees within the corporate limits of Los Angeles city, and here were our little friends.

defying the ordinance, the police, our worthy mayor and his detectives and actually fluttering around the jail door, and lighting on the iron bars at the windows; the utter impudence of the bees, thus defying even Sheriff Kays and his deputies as well as the mayor and police, made us feel like arresting the roamers; whereupon, as a native American voter and citizen, we gathered up some of our native soil and threw a few handful of it amongst the bees. They felt the effects of such American argument and came down and clustered on some malva stalks when we gathered them up, put them in a box and that night carried them off to the San Fernando mountains, where they now work for us.

TORONTO HONEY PRIZE LIST.

COMMITTEE.—Messrs. Geo. Vair (Chairman), Martin Emigh, J. B. Hall, C. Bonnick, J. P. Edwards, H. Glendenning and Ald. Boustead.

SUPERINTENDENT.—Mr. P. Cavers, Hornby.

All honey exhibited must be the production of the exhibitor.

Exhibitors selling honey during the exhibition (for which right a small fee will be charged) will not be allowed to make any removal from their regular exhibit, but may have a special supply at hand from which their honey sold may be taken.

All comb honey cut for sale must be put in manilla paper bags and purchasers notified not to eat it in the building. A breach of these rules will forfeit any prizes that may be awarded.

Class 76.

OPEN TO ALL BEE-KEEPERS (AGENTS EXCLUDED).

(Entrance fee, 25 cents each entry.)

Sec.	1st.	2nd.	3rd.	4th.
1. Best display of extracted granulated Honey, in glass, not less than 200 lbs....	\$10	\$5	\$3	\$-
2. Best display of liquid extracted Honey, not less than 1,000 lbs. of which not less than 500 pounds must be in glass, quality to be considered.....	20	15	10	5
3. Best display of comb Honey in sections, not less than 1,000 lbs., quality to be considered....	25	20	17	6
4. Best display of comb Honey/in sections, not less than 20 lbs., quality to be considered, that is to say, clean sections and best filled.....	8	4	2	-
5. Best display of liquid Linden Honey, in glass, quality to be considered, not less than 50 lbs....	5	3	2	-
6. Best display of extracted liquid clover Honey, in glass, quality considered, not less than 50 lbs.	5	3	2	-
7. Best Beeswax, not less than 10 lbs.	3	2	1	-

8. Best foundation for brood chamber	3	2	1	-
9. Best f'dation for sections	3	2	1	-
10. Best mode of securing the largest yield of comb Honey, product to be exhibited in super as left by the bees.....	3	2	1	-
11. Best mode of securing the largest yield of extracted Honey	3	2	1	-
12. Best and largest display of Apiarian supplies, quality to be considered	1. Silver Medal 2. Bronze Medal			
13. Best style and assortment of tins for retailing extracted Honey	1. Silver Medal 2. Bronze Medal			
14. Best style and assortment of glass for retailing extracted Honey.....	1. Silver Medal 2. Bronze Medal			
15. Best section super for top storey and system of manipulating, product to be exhibited in super as left by the bees	3	2	1	-
16. Best and most practical new invention for the Apiarist	5	3	2	-
17. Best assortment of Fruit preserved in Honey, six bottles or jars.....	5	3	2	-
18. Cake or Pastry made with Honey	3	2	1	-
19. Best Honey, not less than one quart	3	2	1	-
20. Best and most useful queen nursery cage	2	-	-	-
21. For the most tasty, attractive and neatly arranged exhibit of Honey in the Apiarian department, all the Honey to be the production of the exhibitor. Half of this prize is given by the Ontario Bee-Keepers' Association	50	-	-	-

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.

QUALITY OF STORES.

QUERY No. 186.—Are all winter stores of bees equally good if properly ripened, and is there not more difference on account of unripened being thinner than the source from which they were gathered?

PROF. COOK.—No by no means. Don't understand last part of question.

H. D. CUTTING.—Well ripened stores are much better than unripened.

M. EMIGH.—I believe unripe thin honey has more to do with loss in winter than the source from which it was gathered.

DR. C. C. MILLER.—I don't think all are equally good, but the best kinds are poor if too thin.

O. G. RUSSELL.—Yes. My experience has been that it does not make much difference from what source honey for winter stores is gathered if it is well ripened.

S. CORNELL.—Not if the stores happen to be honey dew, such as my bees gathered in the fall of 1886. Some reliable men have reported favorably of honey dew for winter stores. Possibly the quality for wintering purposes may vary with the source from which it is obtained by the aphid.

ALLEN PRINGLE.—There is no doubt a difference in the qualities of the different kinds of honey as winter food, assuming all to be equally well ripened, but, as you suggest, the greater difference (so far as effects are concerned) probably inheres in the stage of maturity or ripeness.

G. M. DOOLITTLE.—With me I prefer honey to anything else for winter stores. Of course the better it is ripened the better the prospect of successful wintering.

SUNDRY SELECTIONS.

BEEES IN GOOD SHAPE.

GEO. ROGERS.—My bees are out in good shape. Lost three out of forty-seven. First pollen April 27th.

Hollin, May 4th, 1888.

GEO. SPITTER.—My bees have wintered nicely. Packed twenty-three outdoors, of which I lost one. Seven were in cellar and came through in good shape. The loss was quite heavy in some parts of Crawford Co. Some lost nearly all while some came through without any loss. The past year was poor. Colonies averaged about twenty pounds apiece. Comb honey sold for 15 cents wholesale.

Mosiertown, Pa.

LOSS 50 PER CENT—KIND WORDS.

WM. TIPLING.—Took my bees out on the 26th April, lost 50 per cent. All those heavy enough with sealed natural stores came through in No. 1 condition. Those fed in the fall to make up sufficient to winter on "pegged out," some leaving sealed and unsealed stores behind. The temperature was never below 37°. Can you account for it? Cellar dry. I thank you for continuing the JOURNAL, as I have been laid up both sick and lame. This is my first trip to the P.O. in six weeks. If I were to lose all my bees I should still keep on the JOURNAL, even for old acquaintance sake. It is always opened before the letters, and read twice before fyled.

Fenelon Falls, May 5th, 1888.

We can hardly account for the loss which you have had; we have had

losses and did not know to what source they should be charged. We might guess, but that would not make it a certainty. Perhaps the stores were fed too late in the fall, or they may have soured, or the colonies may some of them have been queenless. It is hard to say the cause. We are obliged to you for your very kind words concerning the JOURNAL. We hope to merit your continued approbation.

THE CANADIAN BEE JOURNAL.

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

— PUBLISHERS, —

BRETON, ONTARIO, MAY 16, 1888.

BUSINESS DEPARTMENT.

ORDERS UP TO DATE.

Up to the present time we have been able to fill all orders pretty well on time. With a few exceptions they all go out within three or four days of receipt; very often the same day that an order is received. We have a pretty large stock ahead of us and we do not expect to be very much behind.

JOB LOT OF SMOKERS.

We have a lot of number two and three smokers in both fancy and plain finish, which have become a trifle soiled in handling, and some of the tins are somewhat rusty. We have probably 200 of such smokers. They are just as good as if they were clean and bright, for working purposes, but they do not look quite so well. We will consequently sell them at a reduction. Until they are disposed of we will accept 50 cents each for the No. 3 smokers and 75 cents for the No. 2. If wanted by mail add 24c. and 36c. respectively to these prices. In ordering these smokers please mention that they are from the job lot.

FOUNDATION.

We are now producing a much finer article of foundation than we have ever turned out before. The brood foundation runs seven to eight feet to the pound and section from 11 to 12 feet. We have heretofore made a difference in the price between the Jones and Langstroth sizes of foundation. In future, however, the prices will be the same, although it costs a trifle more to make the latter, but we are now dipping it the exact width and do not have the waste we used to have. As will be seen by reference to our catalogue, we do not undertake to make up bees wax for customers unless received in quantities of 50 pounds or over, but we are always agreeable to taking the wax and allowing for it the full market prices. This saves much confusion and work both in the office and in the

wax room and we think with more satisfaction to our customers as well as to ourselves. As a matter of fact it is impossible to give each customer who sends us in wax the identical thing which he sends us, in the shape of foundation. Oftentimes we have probably 25 pounds of wax sent to us with the request that so much of it is to be made up into brood and so much into section foundation; perhaps one light cake will be set apart for the latter. If we were to make up each customer's wax separately, in most cases there would not be sufficient wax to cover more than the bottom of our dipping tank, if we were to try to make it up alone. The consequence is that the customer never gets the wax that he sends. We always endeavor to send foundation equally as good as the wax sent, and in the majority of instances it is a great deal better.

PRICES CURRENT

BEE SWAX

Beeton, May 16, 1888

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.....50c
 over 50 lbs.48c
 Section " in sheets per pound.....55c
 Section Foundation cut to fit 3 $\frac{1}{2}$ "x4" and 4 $\frac{1}{2}$ "x4" per lb. 60c
 Brood Foundation, starters, being wide enough for
 Frames but only three to ten inches deep....48c

BEEES FOR SALE.

One full colony of pure Italians, \$5.00; ten colonies, \$4.75 each; twenty-five colonies, \$4.50 each. Full colonies of Hybrids with queens from pure Italian stock, 50 cents less than Italians. Safe arrival guaranteed and references given when wanted. Address

JULIUS HOFFMAN, Canajoharie, N.Y.



Italian Queens!

Untested, May, \$1.25; June, \$1.00; July, 90 cts. Send for 16-page ILLUSTRATED PRICE LIST of Bees, Queens, Chaff Hives, Barnes Foot-power Saws, Langdon Miter-Boxes, and Apianian Supplies. Address

WILLIAM E. GOULD,
 Fremont, Newwaygo Co.
 5-3 mos Michigan.

Headquarters in the West for Pure Italian BEEES & QUEENS.

Two-frame nucleus, untested queen, in May, \$2.50; June, \$2.25; after, \$2.00; 3-frame, in May, \$3.50; June \$3.00; after, \$2.50. With TESTED queen, add 50c. more. Bees, per lb., in May, 90c.; June, 75c., after, 60 cts. Untested queens, in May, \$1.00; after, 75c.; six, \$4.00. Tested, in May, \$1.50; after, \$1.25. Write for circular of Bees, Queens, Sections, Foundation, etc. 5-3 mos. Address JNO. NEBEL & Son, High Hill, Mo.

PURE—ITALIAN BEEES FOR—SALE!

Full colony in A. I. Root's Simp. hive \$6.00. Two-frame nuclei \$3.00. Three-frame \$3.50. Each nucleus and full colony to contain a tested queen and plenty of bees and brood, all on wired L. frames, combs drawn from idn. Hives new, everything first-class. To be shipped in May. Safe arrival guaranteed. I shall do by all as I would be done by. Address

N. A. KNAPP,
 ROCHESTER, LORAIN CO., O.

BEEES

ITALIAN BEEES and Queens, 3 framed nuclei, full colonies at the very lowest rates and safe delivery guaranteed. Send for catalogue to E. T. Flanagan, Belleville, Ill.

-Comb Foundation-

Having purchased one of the best machines I am ready to receive wax to manufacture or buy. Pure Italian bees, queens and comb foundation for sale. Agent for the D. A. Jones Co. supplies. Can ship by C.P. R'y or H. & N.W.R., (now G.T.) and by Dominion or American Express.

Cheltenham, Ont., April 5th, 1888.

H. COUSE.

BEEES! BEEES!! BEEES!!!

40 colonies bees for sale. These bees are in fine condition with lots of honey. Two-storey hives with eight racks in each story \$8.00 per colony. Single story hives with 12 racks \$7.00 per colony cash, or P.O. order to accompany order. Address

W. H. SANFORD.

Tottenham, Ont.

Reference Bank of Hamilton, Tottenham.

TESTED ITALIAN QUEENS.

Before June 15th, \$1.50 each, after, \$1.00 each; untested, 75 cents each. Six for \$4.00. Bees for sale by the pound. Nuclei or full colonies.

For prices, write for what you want.

I. R. GOOD.

NAPPANEE IND.

Italian Queens, Queens.

Also bees by the lb., and all kinds of bee-keepers' supplies at rock bottom prices send for price list of 1888 now out.

R. E. SMITH.

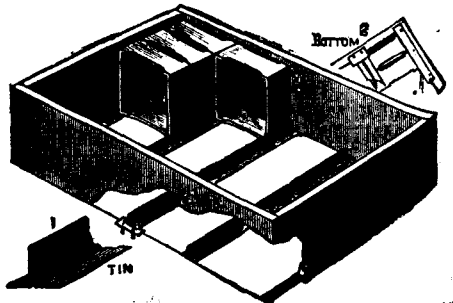
BOX 72, TILBURY CENTRE, ONT.

Formerly Smith & Jackson.

COMB FOUNDATION.

I manufacture the best, or as good as the best foundation in Canada. Comb foundation for sale to suit almost any sized frame or section. Pure bees wax worked on shares or for cash. Samples with prices on application. No circulars. All freight to Ridgetown station, if by mail to

Henry B. Parker,
 MORPETH, ONT.



For this I super or any other bee-keepers' supplies send to
 J. & R. H. MYERS,
 Illustrated catalogue free. Box 94, STRATFORD.

USEFUL GOODS.

The following is a partial list of small wares, tools and stationery, which we carry in stock. Additions are constantly being made. We buy in very large quantities, and are therefore able to quote rock bottom prices. There is always something in these lines you want and they can be enclosed with other goods or sent by mail. The amount of postage is marked opposite each article, except those excluded from the mail.

5 CENT ARTICLES.

Postage.		Per 10 lots.	Per 25 lots.
3	Awls, brad, three assorted without handles.....	\$ 75	\$ 1 00
1	Blotting paper, 10 sheets note size.....	40	88
3	Bag for school books.....	45	1 05
2	Brush, round, for paint, paste or varnish.....	40	95
1	Chisel handle.....	45	1 10
8	Crayons, colored drawing.....	45	1 00
1	Eraser combined ink and pencil	45	
1	Letter openers, nickle plated, very handy.....	40	
1	Memo books, 32 pages, stiff cover.....	40	90
2	Note paper, 1 quire, extra quality, ruled or plain.....	40	80
1	Pad 100 sheets scribbling paper	45	
1	Pass books 3 "Railroad" 16 p. paper cover.....	45	1 00
1	Pass books, 2 Steamboat 32 p p.	45	1 00
1	Penholders 2, cherry, swell.....	40	
1	Ruler, hardwood, flat, graduated to $\frac{1}{2}$, bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....		
2	Scribbling books, 200 pages....	40	90
2	Tacks, cut, 2 papers 1, 2 or 3 oz.	45	

8 CENT ARTICLES.

	Butter stamps 3 or 4 inches....	\$ 75	\$ 1 75
	File, 3 corner, 3 or 4 inches....	75	1 75
	Ink-well, glass, safety, cannot spill.....	65	
	Mucilage, good sized bottle....	70	
	Oil cans, zinc.....	65	
1	Pencil, automatic indelible....	75	1 75
6	1 doz. Lead Pencils, No. 852, very good.....		
1	Time books for week or month.	75	

10 CENT GOODS.

2	Bill fyles, harpshape.....	\$ 90	2 10
2	Book of 50 blank receipts with stub.....	85	2 00
2	Book of 50 blank notes.....	85	2 00
2	Brush, flat, for paint, paste or varnish.....	80	1 90
3	Butter spades 9c. each.....	80	1 90
2	Boxwood pocket 1 foot rule....	90	2 10
	Chisel, firmer $\frac{1}{2}$ inch.....	90	

Postage.

		Per 10 lots.	Per 25 lots.
2	Clips for holding letters, etc....	90	2 00
	Due bills, 100 in book with stub	85	1 80
2	Envelopes, 3 packages, white, good, business.....	95	
2	Files, 3 cornered, 5 inch.....	90	2 10
3	Lead pencils, 1 doz. plain cedar Fabers 581.....	90	
2	Lead pencils 3 red and blue....	90	
2	Note heads, pads of 100 sheets..	90	
	Paint brush, No. 7.....		
2	Pocket note book, 3x5 in., 125 pages, stiff cover with band grand value.....	90	
1	Rubber bands, five, large.....	80	
1	Ruler, brass edged, flat, hardwood, bevelled, graduated to $\frac{1}{4}$ inch.....	95	2 25
4	School bag, medium size.....	90	2 10
	Tacks, cut, 3 packages, 4 oz.....	90	

13 CENT ARTICLES.

2	Belt punches, Nos. 2, 3, 4, and 5	1 25	\$ 3 00
	File, 6 inches long, flat.....	1 25	2 90
	" 5 " " round.....	1 25	2 90
	Shce knives, 4 inch blade.....	1 20	2 75

15 CENT ARTICLES.

	Chisel, firmer, $\frac{1}{2}$ and $\frac{3}{4}$ in.....	1 45	
12	Dextrine, $\frac{1}{2}$ lb. pkge. for pasting	1 30	
	Glue, 1 lb. ordinary.....	1 30	
	Hammer, iron, adze eye.....	1 45	
3	Lead pencils, 1 doz., good quality, Faber's 971.....		
5	Note paper, 5 quires, 3 lbs., extra value.....	1 40	3 35
	Paint brush, No. 5.....		
6	Rubber bands in gross boxes. For queen nursery.....	1 30	
4	Rule, 2 foot, a splendid line....	1 40	3 40
	Screw driver, 5 inch, round bit, hardwood handle.....	1 40	
2	Statement heads in pads of 100	1 20	
	Tack hammers, magnetic.....	1 40	3 30
12	Papeterie, 24 sheets fine note paper and 24 square envelopes in neat box.....	1 40	3 35

18 CENT ARTICLES.

	Bit, best make, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	1 65	4 00
	Glue, LePage's liquid, with brush	1 65	
	Oilers, automatic.....	1 60	

20 CENT ARTICLES.

Postage.	Per 10 lots.	Per 25 lots.
Bit, best make, $\frac{3}{8}$, 7/16, $\frac{1}{2}$, 9/16..	1 90	4 50
Brass traps.....	1 85	4 50
Brushes, flat, 2nd quality, 1 $\frac{1}{2}$ in. paste or varnish.....	1 80	4 25
Chisel, firmer, inch.....	1 90	
Ebony ruler, bevelled for book-keeper.....	1 90	4 50
File, 8 inch, flat, round or 3 corner.....	1 90	
Glue, 1 lb. light, broken.....	1 75	
8 Lead pencils, 1 doz. 201 good value, rubber tipped.....	1 80	
Paint brush, No. 3.....		
12 Papeterie, "Jubilee" containing 24 sheets, ivory notes, 24 square envelopes.....	1 80	
6 Pens, gross box "292 school"....	1 80	
1 Pocket memo book, indexed....	1 90	
Screw-driver, steel, 6 inch rd bit	1 90	
Square, iron, grad. to $\frac{1}{8}$ one side	1 90	
Thermometer.....		

25 CENT ARTICLES.

6 Cards, 50, ladies' or gents' visiting. Piries' super ivory....	2 00	4 50
2 Duplicate order books, with black leaf.....	2 00	4 50
File, 10 inch, flat.....	2 25	
8 Lead pencils, 1 doz. Faber's H, H. B., B. or B. B.....	2 30	
Paint brush No 1.....		
Rule, 2 foot, boxwood.....	2 30	
Tape Lines, "Universal," 3 ft..	2 30	

30 CENT ARTICLES.

8 Bills payable and receivable....	2 85	6 90
Bits, best make, 10/16, $\frac{3}{8}$, $\frac{1}{2}$	2 85	6 90
250 Envelopes, Ladies', square.		
5 Foolscap, 2 quires, extra quality	2 80	
4 " legal, in pads of 100 sheets.....	2 75	6 00
Inkwell, square, glass, bevelled edges.....	2 75	

35 CENT ARTICLES.

Bit, best make, inch.....	3 40	8 20
Hammer, steel face, for light work.....	3 30	
Square, grad. to 1/16 both sides	3 30	

40 CENT ARTICLES.

Foolscap, 5 quires, good quality	3 75	
Hammer, No. 50, steel head, adze eye.....	3 60	
6 Pens, gross box, 'Bank of Eng.'	3 80	
" " Blackstone or J.	3 80	
Ruler, 2 foot, boxwood, brass bound.....	3 60	

50 CENT ARTICLES.

5 Binders, CANADIAN BEE JOURNAL	4 80	
Blank books—.....		
Day book, 200 p. p. good paper, well bound.....	4 25	
Cash " " " " " " " "	4 25	

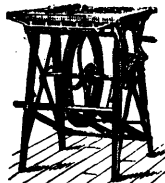
Postage.

	Per 10 lots.	Per 25 lots.
Ledger " " " "	4 25	
Minute " " " "	4 25	
Complete set, Cash, Day and Ledger, \$1.25.....		
200 page Day Book, canvas cover good paper, exceptionally low		
Carpenter's brace, pat. grip, 8 in	4 85	12 00
Envelopes, good, business size, 250 in box.....	4 00	
250 Envelopes, Ladies' square, very goods.....		
Hand saws, 18 and 20 in., best make.....	4 50	
Hammer, No. 51, steel head, adze eye.....	4 50	
Hammer, smaller, frame nail'g	4 50	

SUNDRIES.

Automatic Fountain Pen, the finest thing out; holds enough ink to last a week; always ready; can use any style of pen that suits you, and can change it as often as you wish—a marvel of cheapness—by mail, post paid, each..... 75.

Barnes' Foot Power Machinery—We are agents for these in Canada, and can furnish the Combined Machine delivered in Toronto, freight and duty paid for..... 60 00.



We will gladly forward descriptive Catalogue & pricelist on application.

Copying press, "The Simplex," the most rapid and the easiest handled. Folds like a book and weighs but 10 lbs. With lock, \$5, without....	\$4 50
Hammer, No. 47, steel head, adze eye a most substantial implement....	60
Hand saw, 26 inch, finest quality....	55
Hatchet, steel, with hammer and nail puller.....	65
Lawn Mowers—The new Philadelphia pattern, as made by the Gowdy Mfg. Co., Guelph, at prices as follows:—	
10 inch cut.....	5 75
12 ".....	6 25
14 ".....	6 50
16 ".....	7 25

We ship these direct from the factory at above figures.

Letter books, with index, bound in canvas, 500 pages.....	1 10
Letter books, with index, bound in canvass, 1000 pages.....	2 00
Plane, iron block.....	75
" wood smoothing.....	80
Post cards printed to order, 50 \$1, 100 Square, steel, grad. both sides, usual price, \$1.75.....	1 35
Soldering outfit, consisting of soldering iron, scraper, bar of powdered resin.....	75

D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

THE D. A. JONES CO., LD., BEETON, ONT.

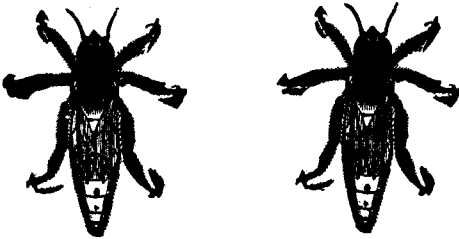
Manufacturers of and Dealers in Apiarian Supplies

OUR CIRCULAR SENT FREE ON APPLICATION.

Publishers Canadian Bee Journal.

Fine Book and Job Printers.

QUEENS.



Our trade in queens grows greater each succeeding year, and we seem to be giving better satisfaction as well. We endeavor to raise queens which will produce good honey-gatherers irrespective of breed or race.

We pay much attention to the class of drones with which our queens come in contact.

The annexed table shows the prices at different seasons, of different varieties. These are, of course, subject to change depending upon the supply and demand. All changes will be noted in the CANADIAN BEE JOURNAL :

MONTH.	Untested	Tested	Selected	Virgin
May	1 50	2 50	3 00	
June	1 00	2 00	3 00	0 60
July	1 00	2 00	2 50	50
August	1 00	2 00	2 50	50
September	1 50	2 00	2 75	
October		2 50	3 00	

Three at one time, deduct 10 per cent ; six at one time, deduct 20 per cent.

EXPLANATIONS.

We are not, owing to our high latitude, able to sell queens before May, nor later than October.

Untested queens will be ready for sale as soon as mated, and before they have had a chance to prove themselves.

Tested queens are those which have been proven as to race and honey-gathering qualities.

Selected queens are chosen because of color, size and honey-gathering qualities.

Queens cannot be shipped unless the weather is warm enough, except at risk of purchaser otherwise safe delivery is guaranteed.

We replace all queens lost in transit, but not those lost in introducing.

BEES.

Bees should always go by express, unless they are personally cared for *en route*.

We do not hold ourselves responsible for breakage or delay in transit of colonies of bees they always leave our hands in good shape. We will send out only such colonies as we are sure will give satisfaction. Our bees will be such as the queens we offer will produce.

MONTH.	Italian	Italian Crosses	Canadian Crosses
May	\$8.00	\$ 8.00	\$ 9.00
June	7.00	7.00	8.00
July	7.00	7.00	8.00
August	6.50	6.50	7.00
September	6.00	6.00	6.50
October	6.50	6.50	7.00

The above prices are for up to four colonies ; five colonies up to nine, take off 3 per cent ; ten colonies up to twenty-four, 5 per cent ; twenty-five colonies and over, 10 per cent—*always cash*. Bees at these prices will always be sent out in the Combination Hive, and each colony will contain a good queen, some honey, and brood according to the season.

BEES BY THE POUND.

Just as soon as we can raise them in the spring, we will have for sale, bees by the pound at the following prices :—Up to July 1st, \$1.25 per pound ; after that date, 90c. per pound. Orders must be accompanied by the cash, and they will be entered and filled in rotation as received. We are booking orders now. Do not delay in ordering if you want prompt shipment.

NUCLEI.

A two-frame nucleus will consist of one-pound of bees, two frames partly filled with brood and honey, and an extra good queen, price \$4. Two at one time, \$3.75 each—up to July 1st.

After that date the prices will be \$3 singly ; two at one time, \$2.75 each.

We can send frames that will suit either the Jones or Combination hive. Please specify which you wish. Should you prefer the nucleus in either Jones or Combination hive, add price of the hive, made up, to the cost of nucleus.

Bees by the pound and nuclei must always be sent by express. Orders for nuclei filled ; in rotation the same as bees by the pound.

APIARIAN SUPPLIES

MANUFACTURED BY

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

Are unsurpassed for Quality and fine Workmanship. A specialty made of all sizes of the **Simplicity Hive**. 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. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

Bee-Keepers Guide

—OR—

MANUAL OF THE APIARY.

The fourteenth thousand just out. 10th thousand sold in just four months. More than 50 pages and more than 40 costly illustrations were added to 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 & Publisher,
STATE AGRICULTURAL COLLEGE,
LANSING, MICH.

BEESWAX WANTED

Will pay 30 cents in cash or 33 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.

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

250 ENVELOPES

—AND—

250 NOTE HEADS

FOR

\$1.

On good paper, printed with name and address, post paid.

CANADIAN BEE JOURNAL OFFICE,

BEEETON ONT.

Muth's Honey Extractor.

Perfection Cold Blast Smokers, Square Glass (Honey jars, etc. Send ten cents for "Practical Hints to Bee-keepers." For circulars apply

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

BEES FOR SALE CHEAP.

30 COLONIES OF ITALIAN BEES FOR SALE. In lots of 3 or more \$6.00 each. Now is the time to send in orders for spring delivery. Bees second 'o none.

Address

LEWIS JONES,
DEXTER P.O. ONT.

THE CANADIAN

POULTRY REVIEW

IS THE ONLY PAPER PUBLISHED IN CANADA IN THE INTERESTS OF THE

Poultry, Pigeon and Pet Stock Fraternity.

Circulation always on the increase. Subscription only \$1.00 a year. Address,

H. B. DONOVAN,
20 Front St. East, Toronto.

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

BEES AND HONEY

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 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.

Have You Seen It?

—THE

BEE-KEEPERS' ADVANCE.

—AND—

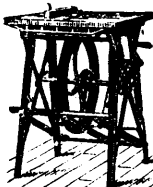
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Only 25 cents per year, sample copy free. Address

J. B. MASON.

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