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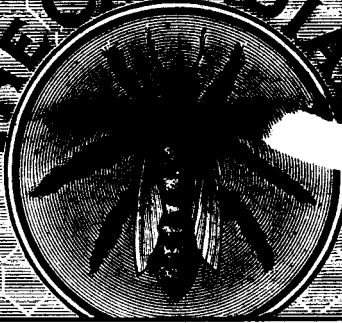
1888

JULY 11

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

INTERESTS

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY  
THE D. A. JONES CO LTD  
BEETON ONT.

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A B C in Bee Culture, cloth.....	2 25	2 00
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"A year among the Bees," by Dr		
C. C. Miller.....	1 75	1 60
A Bird's-eye view of Bee-keeping		
by Rev. W. F. Clarke.....	1 25	1 15

Books for Bee-Keepers.

We have prepared a series of pamphlets on special subjects relating to bee-culture, containing the best thoughts of our most practical beekeepers, which we offer at very low rates, as follows:

1. QUEENS, And how to introduce them .10
  2. BEE-HOUSES, and how to build them. .15
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  4. BEE-KEEPERS' DICTIONARY, containing the proper definition of the special terms used in Bee-Keeping... .25
  5. FOUL BROOD, its cause and cure..... .10
- Or the whole five books, post paid, for..... .50

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

BEE-KEEPERS' LIBRARY.

We keep in stock constantly and can send by mail post-paid the following:—

- "A YEAR AMONG THE BEES," by Dr. C. C. Miller Price, 75c.
- A. B. C. in BEE CULTURE by A. I. Root. Price, cloth, \$1.25; paper, \$1.00.
- QUINBY'S NEW BEEKEEPING, by L. C. Root, Price in cloth, \$1.50.
- BEE-KEEPERS' HANDY BOOK, by Henry Alley. Price in cloth, \$1.50
- PRODUCTION OF COMB HONEY, by W Z Hutchinson. Paper, price, 25c.
- THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.
- A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W.F. Clarke. Price 25c
- SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in paper cover, 50 cents.
- BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.
- FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.
- A. B. C. IN CARP CULTURE, by A. I. Root, in paper 50c.

HONEY, some reasons why it should be eaten, by Allen Pringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers Price, with name and address, per 1000, 3.25; per 500, \$2.00, per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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

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See advertisement on another page. We have just arranged for the sale of these machines, and we can quote a price F.O.B. cars at Toronto (duty and freight paid there). On application we will forward catalogue and price list free.

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

PUBLISHERS' NOTES.

We will always be glad to forward sample copies to those desiring such.

Send us the names of three subscribers with \$3 in cash and receive as a premium one C. B. I. Binder.  
Send postal card for sample of leaflet, "Honey, some reasons why it should be eaten."

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

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt.  
American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts.

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.

The publisher on each wrapper or address-label will show the exact number of your subscription, and you can compare this with the Whole No. on the Journal you can see certain your exact standing.

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All advertisements will be inserted at the following rates:

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Space measured by a scale of solid nonpartic of which there are twelve lines to the inch, and about nine words to each line.

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AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.75
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

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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# COMB FOUNDATION!

At hard pan prices.

**WILL. HILLIS,**  
ST. DAVIDS, ONT.

**My 20th Annual Price List** of Italian, Cyprian Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses.

**H. H. BROWN,**  
LIGHT STREET, Columbia Co., Pa.



**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

**E. HEAL,**  
LINDEN APIARY,  
ST. THOMAS, ONT.

## SEND US \$2.50

And we will send you a good serviceable man or boy

# Nickle Keyless Watch,

And FOREST AND FARM for one year.

The livliest and Best Weekly Paper published in the Dominion. Send your address for sample copy and full particulars. Special terms to bona fide canvassers.

**FOREST AND FARM,**  
CHAS. STARK, Publisher, 50 Church St., Toronto.

# -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. Ry or H. & N.W.R., (now G.T.) and by Dominion or American Express.

**H. COUSE.**

Cheltenham, Ont., April 5th, 1888.

## THE BEE-KEEPERS'

# REVIEW.

For June is now out. The special topic is that of "Removing Queen near the Close of the Harvest." It is contributed to by such men as E. France, G. M. Doolittle, Prof. Cook, F. Boonhower, James Nip and Dr. Miller.

It also contains a long editorial in which the editor gives in detail, his experience in "feeding back" 15,000 lbs. of honey to secure the completion of unfinished sections. "Feeding Back" is to be the special topic of the July number, and contributions upon this subject will be gladly received. All such as are used will be paid for.

Price of the **REVIEW** is 50 cents a year. Sample free. Back numbers can be furnished.

## 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,**  
613 Wood Street, Flint, Mich.

Headquarters in the West for Pure Italian

# BEES & 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.

## FRUIT PRESERVED WITHOUT HEAT!

TIME, LABOR AND MONEY

SAVED BY USING THE

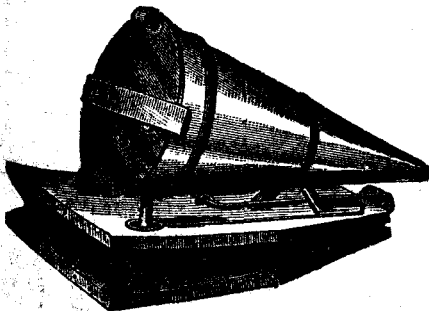
# Perfect Fruit Preservative.

Fermentation absolutely prevented. Simple, Reliable, Harmless. PRICE 25 CENTS per box. Sold by Grocers, or supplied by

**BOOTHE BROS.,**

Or  
The D. A. JONES CO. Ld.,  
BEETON, TORONTO.

# CLARK'S COLD BLAST SMOKERS.



We are making these, with late improvements, and can forward them by mail or with other goods by return post. The prices are as follows:

Each ..... With goods. By mail.  
6" at one time, each ..... 50c. 70c.  
6" at one time, each ..... 45c.

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

BEE-KEEPERS

PRINTING.

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
Envelopes, business size, No. 7,		
white.....	1 15	2 00
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, 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 especially 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.

UNTESTED Italian Queens, daughters or granddaughters of that choice queen purchased from G. M. Doolittle, which was selected out of 600. The above will be reared chiefly from natural swarming cells. Price \$1 each. G. A. DEADMAN, Druggist and Apiarist, Brussels, Ont.

PURE—ITALIAN BEES 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 fan. Hives new, everything first-class. To be shipped in June. Safe arrival guaranteed. I shall do by all as I would be done by. Address

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

SECTIONS! SECTIONS!

At low prices, and sample free. Send card for sample. Received first prize for

COMB FOUNDATION!

Toronto Exhibition, 1887. Brood and Section Foundation by return express. All kinds of Bee-keepers supplies,

S. P. HODGSON & CO., Shelburne, P.O., Ont.



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 Apiarian Supplies. Address

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

E. L. GOULD & CO., 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.

NEARLY 30 TONS OF DADANT'S FOUNDATION

SOLD IN 1887.

IT IS KEPT FOR SALE BY MESSRS.

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- C. F. MUTH, Cincinnati, O.
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- CHAS. H. GREEN, Berlin, Wis.
- CHAS. HERTEL, jr., Freeburg, Ill.
- E. L. ARMSTRONG, Jerseyville, Ill.
- E. KRETCHMER, Ccberg, Iowa.
- 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.
- JOS. NYSEWANDEK, Des Moines, Iowa.
- G. B. LEWIS & CO., Watertown, Wis.
- PAUL L. VIALLO, Bayou Goula, La.
- B. J. MILLER & CO., Nappanee, Ind.
- J. MATTOON and W. J. STRATTON, Atwater, Goodell and Woodworth Mfg. Co., Rock Falls, Ills.
- J. A. ROBERTS, Edgar, Neb.
- OLIVER FORSTER Mt. Vernon, Iowa.
- GEORGE E. HILTON, Freemont, Mich.
- J. M. CLARK & CO, 1409 15th St., Denver, Col.
- E. L. GOULD & Co., Brantford, 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 any made in every respect. Everyone who buys it is pleased with it.

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

BEE-KEEPERS!

SAVE money by printing your name and address on your labels, cards, etc., yourself. Your name on Rubber Stamp, 25c. Name and address, 35c. Any number of lines at 25c for first, and 10c for each extra line. If ink and pads are wanted with stamp, add 10c to these prices. Club amounting to \$1.25 sent for \$1. If you send sample of any name printed, to give us an idea of the size and shape you want we can suit you.

Gem Rubber Stamp Co., MALAKOFF, ONT.



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

VOL. IV. No. 16

BEETON, ONT., JULY 11, 1888.

WHOLE No. 172

## EDITORIAL

THE next place of meeting of the N.A.B.K. Society has been definitely settled by deciding in favor of Columbus, Ohio, instead of Toledo. A lot of us folks that expected to go and quarter ourselves on Dr. Mason's hospitality will now be "left."

### OUR OWN APIARY.

#### MORE CARE IN PUTTING UP HONEY.

WE have just received a consignment of honey in sixty pound tins, which looked very nice when the top was unscrewed; and the large four-inch screw tops did not reveal anything wrong. We set them in the dry kiln to liquify, and after the honey became liquified we were astonished to find a large number of dead bees floating on the top. While some of us might not object very seriously to eating honey that contained a few dead bees, there are others who have serious objections, and no doubt it would have a tendency to disgust these. This is simply pure carelessness on the part of those putting honey in the cans. They have probably left the screw top off to allow the honey to ripen or for some other purpose, leaving the cans where the bees could get at them, thus large numbers have been drowned in the honey, while yet liquid. It is not

very appetizing to open up a can of honey, expecting to be pleased with its delicious flavor and appearance and behold a lot of dead bees floating in it. Those who are so careless as to allow this to occur may be supposed to be slovenly in other ways, and there might a question arise in the minds of the consumer: Is it possible that this is not even fit to eat? For anyone who would tolerate such a state of things is certainly inclined to be careless, and perhaps dirty, in the management of their crop. Now, where it is necessary to leave the screw top off to allow the honey to ripen, surely it is not much trouble to cut a small square of green wire cloth, placing it over the opening, or put something over it to keep the bees out. Sometimes we do not find bees alone. It is not an unfrequent occurrence to find flies. We have thought perhaps it might be advisable to put a small fine on anyone shipping honey thus carelessly put up. As it does not only injure themselves but the thousands engaged in the business, we hope it may not be necessary to speak of this matter in future, but as it is one in which we are all so much interested that it is perhaps a good subject to dwell on. We trust more attention will be given it than was given the question of feeding colonies last fall. We said so much in reference to the matter that we were almost ashamed, thinking that many would become tired of hearing of it after they had done their work properly, yet what has been the

result? Thousands of colonies perished for the want of food, and there are very few who gave their bees sufficient to insure the best results. Now, we hope that everybody will try to get their honey put up in marketable shape and spare no pains to see that nothing is left undone which ought to be done, and we also trust that the bee-keepers will not be duped into selling their honey for less than its value, as the indications are that honey, this season, will bring good prices for the producer. Frequently we hear of some one, especially those just started in the business, who have succeeded in harvesting a few hundred or thousand pounds, placing very little value on the time they have expended in attending to the bees. They take the first offer they get for their honey, sometimes as low as five or six cents. We hope all will endeavor this year to keep up the prices, so that as much profit as possible may be secured from the apiary. Do not try to rush it in the market against strawberries and other summer fruits, but hold it until the prices secured will warrant you in selling.

#### OPEN-SIDED SECTIONS.

In the July number of *Gleanings* just at hand, and in it we notice a new (?) style of open-sided sections, in reality, however, it is a closed side section with open corners. We do not know that we have ever mentioned the matter before, but our foreman made up and exhibited, at the Exhibition at Toronto two years ago, sections identically the same, and only about a week ago we filled an order for several thousand of them. We cannot say how they work from actual experience, but we see no reason why they should not be satisfactory. Speaking of the projecting corners on the ordinary four-way sections on the market, we have never found such serious trouble as some have mentioned.

#### PUTTING SECTIONS TOGETHER.

Before putting the sections together lay them with the outside of section uppermost, then with a sponge wet the back of the joints with hot water, or you may hold a lot of them with the joints directly over the steam of a kettle for a few moments. This renders the wood pliable, and it does not break down when binding the same as it will if you attempt to if they are dry.

For the Canadian Bee Journal.

#### From Bad to Worse, et Cætera.

NOT unexpected by me the surplus honey harvest is not a "harvest" of surplus honey in the Middle States of the United States, the present season. Of course, some favored localities have done much better than the general field of operation. But taking all together the honey season for 1888 is a great failure in Kentucky, and perhaps in all the middle states, and wherever the drought was severe and of long duration last season. When I had less experience in such matters I used to insist that the honey seasons were no more effected by the state of the weather than are other branches of agriculture. But a more extended experience and observation has dissipated this fond delusion. The fruit trees on my grounds which withered and faded under the scorching drought of last season, are now green and flourishing and are loaded with fruits of their kind in a healthy, growing condition. All annual vegetation has come forward handsomely, and up to this writing, June 25th, promises an abundant harvest. But such is not the case with the surplus honey, bee forage, which is catalogued with the hay crop, including all perennial grasses. The surplus honey resources of a large portion of the Middle States depends on the perennial nectar producing plants, chiefly the clover, which must be developed one season in advance of their usefulness as honey bearing forage. Hence a severe and protracted drought during any one season does not necessarily cut down the honey yield of that particular season, but its effects are felt more surely the following season. This because the drought of one season destroys the young plants which otherwise would furnish bee forage for the succeeding year. The present season following two severe drought years which makes a good honey season at the present, out of the question. The earth is covered at this time with a healthy growth of young white clover and if there is sufficient rain from now forward to keep it in a growing condition there is a hopeful future ahead—hopeful to the younger members of our fraternity—the loss of a precious year to us older ones is more keenly felt. But after all it is by no means certain to human foresight that the decade of drought years is at an end, the rain-fall up to this date has been light and the showers have been partial. In some localities there has been rain enough for the needs of the crops at the present stage of this growth, while in other localities the crops are suffering for rain. This state of things makes the outlook not at all bright to the most hopeful.

## SOME EXPERIMENTS.

Last spring I had some zinc perforated in single rows of perforations so that when the rimmed sheet is adjusted on the hive a single row of perforations comes right over the centre of the top bars after the fashion of my slatted top bar brood frames. A single row of perforations over the top of each brood frame would look like the minimum of upward passage way, but the plan has worked fully as well as any of the horizontal dividers that I have tested, and has advantages over all of them.

## THE SOLAR WAX EXTRACTOR.

Owing to the decade of drought years which has cut down the profits of the apiary below the paying point, I have reduced my stock of bees by preventing increase, doubling up etc., till I have an over stock of combs, and this has given me the opportunity to sort out the old and defective ones, together with those containing drone cells in excess, all of which I have been reducing to wax by means of the Solar Wax Extractor. I have two of my improved apparatuses in regular service in my apiary yard. One of them has its cylinder-form melting pan 20 x 29 inches and its glass surface is 20 x 42 inches. The end of the box or case pointing toward the sun is sloped at an angle of about 30°. This apparatus generates wonderful heat. Full sized Langstroth frames are piled into the melting pan till it will hold no more. When the day is clear and hot the combs melt down like snow, and the clear yellow wax runs down into the wax mould. The glass sash is arranged to slide endwise with the frame-work either way, so that only a part of the interior is exposed to robbers or to the waste of heat when it is necessary to stir up the refuse to liberate the wax etc. If robbers rush in, which rash act, fortunately for them, they are not often guilty of, as they seem to be warned by the escaping heat to stand off, but if they do rush in a slight flutter and a faint gasp ends their career in the "ways that are dark and the tricks that are vain."

## FOUNDATION WITHOUT WIRE.

I have discovered a new plan to so strengthen sheets of fdn. that they will hold up swarms without the assistance of the wire nuisance. If you will cut a sheet of fdn. in two and then lap the edge about one quarter of an inch and weld the edges together with a stiff putty knife in the same way that the sheets are secured to the top bars by the mashing process, the thick rib in the centre will prevent the sheet from stretching or sagging and the bees will work right on over the rib and make the combs as perfect as if no thick rib was in the way. I see no reason why the rolls of a machine could not be fluted in the

middle so as to forge the ribs in the centre of the whole sheet. Of course this would require long rolls for the L frames as the sheets would have to pass through the mill lengthwise instead of the narrow way as now practiced. With sheets of foundation prepared as above described all that is necessary is to secure them firmly to the top bars of the frames and they will stand up to the severest test.

G. W. DEMAREE.

Christiansburg, Ky.

Thank you very much, friend Demaree, for the above article, which is full of valuable hints. We have no doubt the one row of holes in the perforated metal from the centre of the top bar would give ample room for bees to pass up into the surplus, and right here let us say that in spite of the prejudices that have existed against the perforated metal they are gradually vanishing, and the consumption is more than doubled every year. It is gratifying to know that some, after using it for five or six years, ordering more every year, are still placing large orders this year saying they could not do without it. The Solar Wax Extractor no doubt has many advantages, cheapness being one of the principal ones; but we scarcely think, in fact we almost feel certain, that there could not be sufficient heat generated in it to destroy the germs of foul brood. However, wax heated sufficiently for dipping purposes would be hot enough to destroy the germs so that there could be no objection to their use except in cases where some honey got mixed in the wax so those engaged in the foundation business or in handling wax would only be required to use sufficient care to prevent the bees from working on the wax before it had been thoroughly heated. Cappings could be thrown in and the wax separated from the honey. This would certainly be quite an advantage without much trouble. Now, friend Demaree, your plan of using foundation without wires by splitting it, seems reasonable. We have frequently found thin foundation stretch very badly, while heavier did not. Why would it not do to cut your foundation say half-inch, more or less, wider than your frame, then at the centre and half-way between that and the ends, if you choose, just make a pleat in it. By putting a straight edge on it could easily be doubled up, then a short fold back again would leave three thicknesses of



foundation and it need not be more than one cell wide, thus without pressing it down very much you would have a slight rib down the centre. Two rows of cells only would be taken up from the width of the foundation. A very simple and ingenious device might be arranged to do this very quickly and very cheaply. No doubt it would work well and allow us to use much thinner foundation for the brood chamber. From past experience we feel sure bees would finally work that rib out as perfectly as the other parts of the foundation. We are sorry to hear that you are likely to have a poor honey season. The weather in this section has also been very dry up to within the last week, since which time we have had plenty of rain and look forward now in hopes of having a good harvest.

For the Canadian Bee Journal.

#### A NEW PEST.

SOME three or four days ago as I was walking through my bee-yard, I observed a mosquito hawk (commonly called spindle) dart out from a bunch of grass and capture a bee. It alighted with it immediately and proceeded to devour it. I watched it for a few moments, and then went round behind it and killed it. I picked up the bee and found that it was nearly half eaten up. As there were hundreds of the spindles around the yard I sat down to watch. I had hardly got seated before I saw the same performance gone through with again, and I soon found that they were catching them by the hundred. Since then I have killed scores of them while in the act of devouring their prey.

I have lost about eight out of ten of all the queens I have raised this season, and have concluded that it is useless to try to raise queens here at present. I shall move part of my bees to a new location this week.

I would rather have all the bee-birds in creation hanging around my bee yard than to have this horde of spindles. I send you one; please tell us what it is.

A. W. BROWN.

Port Rowan, June 26th, 1888.

We recognize in the specimen which you send us the ordinary mosquito hawk, or, as we used to call it when boys, the "devil's darning needle." We were never of the opinion that they were any harm, however, to the bees. In fact, we looked upon them as being

more useful than detrimental. We have not got them in any quantity around our own apiary, though we have found it very difficult to get our queens mated this season, from what cause we are not positive. We shall be on the lookout now to ascertain whether our troubles be the same as yours. We have sent the specimen which you forwarded us to Mr. Wm. Brodie, President of the Natural History Society, and from him we will next week be able to give a fuller description of it, also if there be any known method of exterminating the pest.

From Gleanings.

#### SHALL WE SUPERSEDE OLD QUEENS OURSELVES?

FRIEND POPPLETON TELLS US WHY WE SHOULD.

MY attention has been called to the replies given some time ago to this question in the Question-Box department of one of our bee-journals. Seven out of twenty who furnished replies gave no decided opinion either way, while the other thirteen all replied in the negative. The principle reason given, when any was given for the opinions, was that the bees knew when to do this work better than we did, while one said it cost less to let the bees do the work themselves; and another said that superseding by rule would often depose queens of great value. As my opinions and practice have been directly opposite to those given by the thirteen, I will try to give my reason for the same, as the time of year is near at hand when such work should be done, if done at all.

The assertion, that bees know better when to do this work than we do, is in a certain sense true, and in other ways not true; for while they frequently supersede their queens before the apiarist can possibly detect any failure of the queen, or, at least, before he would detect it in the ordinary routine of work, they frequently retain failing queens, if allowed to do so, for months after they are nearly worthless; but all are agreed that such queens should be replaced by the bee-keeper. The fact that, in following any rule of superseding on account of age, we will sometimes destroy queens good for yet another season, is also true; but this is only one item to be considered in making a decision of what is best to do, and not the conclusive reason that the one who made it seemed to consider it was.

The entire question is one simply of profit and loss; that is, a question of which way costs the

least. On the one hand we have the expense of furnishing the colonies with the young queens, which any one can easily determine for himself, and to this must be added the value of an occasional queen that would be destroyed that would be useful for yet another season. This last item is much less than many suppose it to be, and less than I supposed it was until after I had closely observed the matter for several years. On the other hand, we have a material reduction of our honey crop, resulting from the failure of many old queens at a critical time of year. In our Northern States the time of year when such failure will lessen the amount of honey stored by the colony extends from late in the fall until about July 1st next; and it is practically impossible to detect this failure in time to entirely prevent the loss of honey. The bees do very little superseding of their own accord at this season of the year; in fact, practically none at all of queens that are commencing to fail, but not yet entirely so. At least nine-tenths of the superseding in my apiary in Northern Iowa was done in the months of July and August.

To aid me in getting at the real facts in this matter as well as in others, I have always kept a complete record of all my queens, and have practised clipping their wings. This last enabled me to keep a correct record of each queen, without any guesswork. I soon noticed that those colonies whose queen was in her fourth season nearly always gave me less than the average amount of honey, and enough less, too, to much more than pay for the expenses of having given them young queens the fall before, and allow largely for the value of such good queens as might be killed while doing so. I never killed all of my third-season queens, although I think it would have paid to do so; but I always kept a few of the best ones, so I have had both kinds of queens to compare results from a number of years.

A colony which is very strong at the commencement of the honey flow, will store more honey according to its numbers than will a medium strong one, and only queens in prime vigor can get their colonies strong by the time white clover commences to yield; and even if old and yet good, they are rarely ever as vigorous as are younger ones; and my main reliance for surplus honey was always on those colonies having queens in their second or third seasons.

It is quite a long while from the time brood-rearing ceases in the fall and the first of July following; and any failure of the queen during this time, even if only partial, seriously diminishes the number of mature bees the hive will contain during the honey-harvest, and no failure

of a queen can take place during this time that can be noticed by the apiarist, soon enough to prevent a serious reduction of the amount of brood that will be raised in time for the harvest.

A much larger proportion of colonies having old queens will be weak in the spring than of those having younger queens; and as requeening can be done so much cheaper and better in the fall than in the spring, I prefer to do it then, even if half the queens I destroy would be good for yet another year.

Many of our best apiarists—Doolittle, Hutchinson, and others, recommended the contraction system during swarming; but all seem to agree that swarms having old queens seem much more inclined to build drone comb than do others.

In speaking of old queens, I mean those that have done duty for three seasons, including the one in which they were raised. In rare cases I have known queens to do duty the fifth season; but a very large proportion will not do very satisfactory work during their fourth season, a much larger proportion than many suppose is the case, unless they have specially observed this point for a number of years.

As already said, the question is one of relative profit and loss. On one hand we have the expense of the young queens, and the value of the few good queens that will be destroyed; on the other, we have the very material shrinkage of the honey crop, the probable loss of some colonies, etc., and there is no question in my mind that the last items exceed the first ones many times over.

O. O. POPPLETON.

Apartado 278, Havana, Cuba, June 6, 1888.

From the Bee-keepers' Review.

### Feeding Back Extracted Honey to Secure the Completion of Unfinished Sections.

**E**VER since engaging in the production of comb honey we have been practising the above. We have fed, during the past five years, at least 13,000 pounds of extracted honey; but our success has been so varied that we have never felt like encouraging the practice. One year, with certain colonies, we would meet with such splendid success as to be greatly encouraged, while the results of the next year, or the performances of certain colonies, would, perhaps, lead us to declare that we were done with "feeding back." But, when the next season rolled around, and the close of the linden harvest found us with perhaps 2,000 unfinished sections on hand, and we sat down and figured up how much they would be worth if completed, we felt, as Dr. Miller once expressed it at a Chicago convention, that it might pay to feed to secure the completion of nearly finished sections even though the feeding of four or five pounds

of honey increase the weight of the sections only one pound. Did we not consider drawn comb of considerable value in getting the bees started in the sections in the spring, we should unhesitatingly pronounce in favor of feeding to secure the completion of unfinished sections. That is, this would be our decision so far as the management of our own apiary is concerned; but it does not follow that this decision would be the proper one at which all bee-keepers should arrive; although it would seem that there is one class that would be glad to so decide, and that is the one that finds the use of drawn comb in sections so very objectionable. So much by way of introduction, and now, for the benefit of those who, for any reason, may wish to practice feeding back, we will tell what we have learned in feeding back the 13,000 pounds of honey. Perhaps the best way will be to tell exactly how we would conduct the operation, but first allow us to say that the feeding of honey for the purpose of having it stored in sections, is a distinct branch of bee-keeping—as much so as that of rearing queens for the market—and there are many things connected with it that can be learned by experience only, but the following hints may help some:

As soon as we see that the basswood harvest is drawing to a close, we remove all the sections from the hives, look them over, take out the finished ones, and sort the unfinished ones into three grades, viz.: almost finished, half done and just commenced. The cases containing the first two grades are then placed upon the hives, one case upon a hive, and allowed to remain until the bees have taken possession of them. Then comes the task of selecting the colonies that are to do the work; and, by the way, this is a most important point, as upon the proper selection depends our success. First, the colonies must be strong; next they must possess young queens, preferably those of the current year, although this is not imperative; and last, but by no means least, we would have the bees simon pure blacks. Hybrids are the next best, while, as a rule, Italians do very poor work in this line. Keeping in view these points, we select one-half as many colonies as we have cases of unfinished sections upon the hives, and to these colonies we transfer the cases—sections, bees and all—putting two cases upon each hive. We have never experienced the least trouble in any respect, by thus mixing up the bees; while we secure populous colonies by so doing. If the brood nests are not already contracted, we contract them. The greater the contraction, the more satisfactory will be the results so far as the work in the sections is concerned, but, if carried

too far, it will materially weaken the colonies, by curtailing the production of brood. We have frequently contracted the brood-nest to only three L. combs, and these three combs, when we were through feeding, would be three solid sheets of brood; but, all things considered, we prefer to contract the brood-nest to about the capacity of five L. combs. There is also one other point that must not be neglected, and that is, the brood combs must not be old and black, otherwise the combs in the sections will become travel-stained unless removed very promptly upon their completion. The newer the combs in the brood-nest the better.

When honey is brought in from the fields it is carried up into the sections, that is, the supply, as regards the sections, comes from below; when a feeder is placed above the sections then the supply comes from above. In both cases the sections in which the work is the least advanced should be placed nearest to the source of supply. Thus it will be seen that, in feeding back, we place next to the brood-nest the sections that are almost finished, and above them the grade that are about one-half completed. The feeder used is the Heddon, which is exactly the size of the top of the hive. His new feeder is unexcelled for this purpose, as the bees take down the feed from both sides. This might not seem important, but it is, and for this reason: when the feed is carried down upon one side the sections upon this side are completed first, while they are finished up very evenly all over the case when the feed is carried down from both sides. The bees seem to be able to handle the honey to better advantage when it is thinned somewhat; say one quart of water to ten pounds of honey. We heat ten quarts of water over an oil stove, until it boils; then mix it with 100 pounds of honey, stir it up well and it is ready for use. We feed as fast as the bees will take it. We keep close watch of the sections in the lower cases, and when we find one in which all, or nearly all, of the sections are completed, off it comes; and the case above it is placed next to the hive, and above this case is placed a case of sections brought from the honey house; one containing sections of the third grade, that is, those in which the bees have made the least progress. We continue to bring in the cases of completed sections as fast as they are finished, replacing them with unfinished ones taken from the honey house. When the stock of the latter is exhausted, we are ready to begin to reduce the number of the colonies upon which we are feeding back, which is done as fast as the sections are completed. During all this time, since the feeding was commenced, we have been watching each colony,

and jotting down, upon the hive cover, its characteristics, and in reducing the number of colonies, we, of course, reject those that have worked in the least satisfactory manner. We continue to keep two cases upon each hive, and as the colonies work with greatly varying rapidity, there is no difficulty, by changing about the cases, to keep next to the brood-nest those sections that are the nearest completion. In gathering the sections together upon fewer hives we always take bees and all, thus we are continually strengthening the colonies upon which we are feeding-back. It is folly to expect the bees to finish up all the sections upon a hive. Even though the feeding be continued, the sections will not be completed in a satisfactory manner. So long as the feeding is continued the bees act as though they reasoned something like this: "We must make the cells as deep as possible, and delay the capping until the last moment, in order to make room for all the honey that we can; and, if there isn't cells enough, we must build more, even though it be in these cramped-up little places between the tiers of cases." After the combs are drawn out to full length, filled with honey and nearly sealed, we have secured better results by giving the bees no feed for three or four days; then giving them a light feed, and omitting the feeding for several days. The bees then behave as though they considered the harvest over and ended. They seal up most of the cells, and from those that they do not seal they remove the honey. But there is a much better way of managing this part of the business. When the sections are nearly all finished, we put them upon as few hives as possible, placing two cases upon a hive; and then upon each hive, above the two cases of nearly completed sections we place a case of sections filled with foundation. The bees proceed at once to draw out the foundation and fill it with honey, and this additional storing room appears to bring about a feeling that there is no further necessity for holding open the cells below, and they are sealed forthwith. When the two lower cases are completed, the upper case will, perhaps, be found one-half finished, and these upper cases may be gathered together, bees and all, and placed, two upon each hive, over those colonies that show the greatest aptitude for this kind of work, and the feeding continued until the sections are almost completed, when it will again be necessary to place a case of sections containing foundation upon each hive. We have continued this work, until, at last, all the sections were upon one hive and had the sections all completed except the case last added to the top. After bees have been fed awhile, they secrete very large

quantities of wax. The little flakes of it can be seen between the scales of the abdomen, and, unless allowed to build comb, the bees will plaster with wax the woodwork of the sections, the inside of the feeders, cases, etc. The moral is, allow them to build comb. Have a row or two rows of sections in the upper case filled with starters only; thus there is secured, in the shape of comb, what would otherwise be wasted. Although we cannot control the temperature, it may be well to know that the hotter the weather the more rapid and satisfactory will be the work of the bees when we are "feeding-back."

There friends, we have told you all that we know about "feeding-back;" or, at least, all that we can think of just at present; and now will you have the kindness to tell us what you know about it, and allow us to print it all together in the *July Review*, thus making it the special subject of discussion in that issue? Perhaps some of you would like to ask some questions in regard to the matter. If so, all right, send them on, and we will answer them if we can, or else get someone to answer them.

From *Gleanings*.

#### BEE STINGS.

WHAT BECOMES OF THE PART REMAINING IN THE FLESH AFTER THE TOP IS BROKEN OFF?

I AM requested by a subscriber to *Gleanings* to explain how the bee sting is removed from one's skin when broken off in the act of stinging. He suggests that, if it does not work out, it must be absorbed by the system; in which case he thinks that some bee-keepers must be largely composed of stings.

The skin consists of two layers—the outer scarf skin, or cuticle, also called epidermis, and the inner true skin or corium, also called *cutis vera*. The outer skin is made up of what is known as scaly, or pavement epithelium: that is it consists of innumerable minute overlapping scales. The inner scales contain pigment in their substance, and thus the color of skin. The albino has no pigment, and hence his skin is transparent, and looks pinkish, as we look right through and see minute blood-vessels filled with blood. The inner skin consists of an outer part, which, like the cuticle, has no nerves, and so is not sensible to pain or touch. This is made up of white fibrous tissue and small involuntary muscles. These muscles contract if the skin is chilled, and drawing the skin away from about the hairs forms the well-known "goose-flesh." Beneath this layer, which is known as the reticulum, because of its intercrossing fibers, is the

papillary layer. This is the very inner part of the skin. It takes its name from the fact that little teat-like processes—papillæ—push up against the outer part of the skin. The ridges seen on the inside of our hands are but the elevations of these papillæ. Into these papillæ from beneath come nerves and blood-vessels. Thus from here comes all nourishment to the outer skin; and here is the sensitive part of the skin. Thus, a bee to hurt us must push its sting through the cuticle and reticulated part of the corium till it pierces the papillæ, where the blood receives the poison, and the nerves twinge with its venom.

Now, as we understood the anatomy of the skin we can see how the sting, if broken off in the skin, is loosened and liberated. The scaly or outer skin is constantly being worn off. When we bathe, the water often is clouded with these minute scales. The snake sheds its scales once a year; but we are doing it all the time. As these scales are constantly wearing off, any minute portion of sting which is held in them is also worn off and separated from the body. Even if a small portion of a sting is caught by the reticulum, the part would probably suppurate and loosen the sting, as is done with slivers that enter and are caught and held in the skin. We thus see that a bee-keeper is not made up of stings, by any means.

In case of porcupine quills, which are barbed like a bee's sting, they are thrust through into the muscle, so that every move of the muscle pushes them; and as they can not go back, they are pushed on. Thus a porcupine quill may pass some distance through the unlucky animal which has caught them in its tissues.

A. J. COOK.

Agricultural College, Mich.

Napa, Cal., Register.

### THE LAST OF HER RACE.

A PIONEER QUEEN BEE AND HER PROUD OWNER.

**M**ANY of the *Register's* readers are familiar with Wall's extraordinary feat in 1849 in driving according to his statement, a swarm of bees across the plains.

A day or two since, as one of our business men was coming down town, he happened to discover a large bee quietly resting on Wall's shoulder as preparations were being made for sprinkling the Court-house lawn. "Say, Wall, what are you doing with that bee on your shoulder?" Wall was startled for a moment, but, recovering his usual composure, spoke with gravity, carrying conviction of untarnishable truth. "I'll tell you and it's the solemn truth if ever I spoke it in my

life. That bee is the queen of the swarm that I drove across the plains. She has been hunting me for years and knew me the moment I called her name. You see, she is getting a little gray; but I knew her on sight. She piloted the swarm and I used to feed her from my own molasses can. That bee is the last of her race, and I shall take care of her in her old age. I tell you, John, that bee brings up many reminiscences of that memorable trip. Several times that swarm stood by me in the hour of peril. They could scent an Indian several miles away, and they got to really enjoy an Indian attack. The fact is they understood tactics as well as the best trained soldiers. When the queen sounded an alarm every bee was under arms ready for fight. First a skirmish line was thrown out, and you could see more or less uneasiness among the redskins, as one or another would claw at his eyes, ears or nose, but when the order to 'charge' was sounded and the bee battalions began to move in 'double quick', a rout and stampede always followed. It is a fact, John, if ever I told the truth in my life. What I am saying is true. Those bees fought all my battles across the plains, and this is my old queen."

## 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.

### What Flowers do Bees Prefer?

**QUERY No. 201.**—Are bees fonder of some kinds of flowers than others and are they not more anxious to gather honey from some kinds, and what are they?

**H. D. CUTTING.**—I am told that bees in Canada will leave everything else for the beautiful linden.

**DR. C. C. MILLER.**—I think they have decided preferences, but I do not know the order of their preference.

**J. F. DUNN.**—Bees work on those flowers that produce the most honey, while several kinds are in bloom at once.

**ALLEN PRINGLE.**—My impression is that the bees prefer the flowers richest in nectar, and having the most of it if equally accessible.

**DR. DUNCAN.**—When there is a good flow of basswood honey they will leave all the rest and make a bee-line for the woods. They prefer Alsike clover before all the other clovers.

G. M. DOOLITTLE.—In this locality, bees often leave linden bloom to work on the more unprofitable teasel; unprofitable, on account of the honey from this plant being very thin, while that from linden is quite thick.

PROF. COOK.—Yes, such as afford nectar. I presume of nectar-secreting flowers they would most visit those that are most fragrant. The odor is likely a part of the attraction—color and odor.

O. G. RUSSELL.—Yes, I think they are. In this locality bees will not work on early-sowed buckwheat when they can get honey from clover or linden, although they gather large yields from it after clover has ceased to yield.

#### Self-Spacing Frames.

QUERY No. 202.—Do you use or know any one who does use top bars of comb frames with projecting shoulders forming spacers keeping the comb apart one and one half inches from centre to centre?

G. M. DOOLITTLE.—I think the Hoffman frame is as you describe.

DR. C. C. MILLER.—I don't, and I don't know of any one else.

ALLEN PRINGLE.—I do not use them, do not know who does, nor do I want to.

H. D. CUTTING.—I have seen them used years ago, but don't know of any in use in this locality at the present time.

PROF. COOK.—I have used them. I have some now. I know of several bee-keepers who use no others. I do not like them.

J. F. DUNN.—Why, yes, nearly every bee-keeper during his early experience gets onto this idea, but nearly all of them cut them off during the second or third season, just as you will do after trying them. One and a half inches from centre to centre is too great a distance; 1½ is better.

#### Material for Separators.

QUERY No. 203.—Have you ever tried wood, cloth or paper for separators, if so state results?

DR. DUNCAN.—No.

PROF. COOK.—Thin wood, yes. I like it. I think it is going to replace tin.

ALLEN PRINGLE.—I have tried wood and tin, and find the latter will do me all right.

DR. C. C. MILLER.—I use wood almost altogether, and like them for loose separators.

G. M. DOOLITTLE.—Tried wood, but prefer tin. With me the bees eat the wood so as to reduce the width of the separator in a few years.

J. F. DUNN.—No experience with wood, cloth or paper for separators. Tin works well with me.

H. D. CUTTING.—Have used tin and wood with the best of success. Tin is so high-priced at present that wood will be largely used this season.

O. G. RUSSELL.—We ran short of separators one season and used a few pasteboard separators. They worked all right except when left on the hives after the honey season was over, when they were torn down and carried out of the hive.

## SUNDRY SELECTIONS.

### OLD QUEEN GOES WITH FIRST SWARM.

D. McDONALD.—Please answer the following through your valuable paper:

Does the first swarm contain old and young bees?

Yes.

Does the old queen go with the first swarm?

Yes.

How long can a queen live?

Cheltenham, July 5, 1888.

We have known them to live over five years, but three years is generally a limit to their usefulness.

THOMAS PASSMORE.—I do not keep very many bees, but all I have wintered well. One colony took a frolic in winter and swarmed out on a cold day. They had plenty of honey and I saw no disease among them. I wintered part on summer stands and packed a part in cellar and do not know that I saw much difference in results. I have been extracting honey from some old combs saved from last year which the bees did not require, and in some of them the honey has become granulated. I scarcely know what to do with them. How do you keep them so they will not granulate in the winter?

Drumbo, June 29, 1888.

The only preventive from granulation would be to store the combs in a thoroughly dry, airy place. Under any circumstances, more or less will granulate. It depends to a great extent upon the ripeness of the honey when stored away for winter.

### SECTIONS GROOVED ALL AROUND.

WM. DICKSON.—In my communication to the CANADIAN BEE JOURNAL with reference to grooved sections, which you inserted in this week's issue, page 267, an error occurs. It says:—"I saw or heard of its being done before I tried it." It should be, "I never saw or heard of its being done before I tried it." I cut the groove all the way around the section and I find it works very well.

Milton, June 30th, 1888.

We looked up your copy and find it was set just as it was received. You simply omitted the word "never." It struck us at the time as being a trifle contradictory to what you had said in the first portion of your letter. However, this one little word fixes it all up. We are glad to have your answer to the question which we asked with reference to whether or not you cut the groove all around the inside of sections. Quite a number of practical men are trying the sections thus arranged this season and we hope to have full reports as soon as the honey flow is over.

THE CANADIAN BEE JOURNAL.—HOW VIEWED BY ITS READERS.

O. F. WILKINS.—I have delayed giving my opinion of the CANADIAN BEE JOURNAL so long, because I wished to see how it would "pan out." I like it exceedingly well for several reasons, viz:

1st. It is a Canadian production, and I, being a Canuck, naturally believe in supporting the products of Canada.

2nd. It is neatly gotten up, typographically, and is a credit to the press whence it emanates.

3rd. Its editorials are good, and its corps of contributors are men of good judgment who know what they are writing about and how to express their ideas in correct language, so that their meaning cannot be misapprehended.

4th. I have yet to see an article containing sneering, sarcastic remarks concerning any of the American bee journals, and which I hope I may never see. Were you to permit anything of that nature to sneak into our Canadian bee paper, I should blush for it.

There are several other reasons which I might adduce, but these are sufficient to cause every Canadian apiarian to give his sincere sympathy to the C. B. JOURNAL. "May its shadow never grow less," and may its subscription list increase until every bee-keeper in this glorious Dominion shall have become a staunch, steadfast supporter.

International Bridge P.O., Ontario.

We can only murmur our thanks for such kind and unsolicited testimonials, as the above, and ask for strength to deserve them.

PREVENTING INCREASE.

A SUBSCRIBER writes: For the prevention of increase two rules are: 1. Give plenty of room for storage. 2. Ventilate hives.

Now, how can I tell when my bees are crowded for room? Should I see many bees on top of frames through glass in cover?

If you find plenty of bees between each row of combs, and they are flying out and in the entrance rapidly and have nearly all the combs filled with brood, it is pretty safe to say that they

could do with a little more room. This matter of just the time to give more room depends largely on the judgment of the bee-keeper because the flow of honey is to be taken into consideration, also the flora of the country and all the surroundings attending to make the business a success or failure. We do not use glass on our hives to look through, but simply remove the lid and with our smoker drive the bees down among the combs and examine them. We can see if they are starting queen cells or if any are built, and can see if the queen is crowded for room. We can examine the condition of the hive and ascertain more perfectly than could be possibly done by a mere glance through a pane of glass. For instance the bees might be clustered on the glass and as soon as the light came to it they would be inclined to run on the glass, thus making you believe that they were stronger than was the reality.

Which is preferable, top or bottom ventilation? How can you tell when the bees require to be ventilated? Is it a sign when they begin fanning on the alighting board with their wings?

The matter of ventilation is something that we give very little attention to. If the bees have plenty of room they usually do their ventilating. Of course, there are a few very hot days almost every season, on which it is well to raise the lid slightly, allowing a current of air to pass over the entrance to the lid to pass of from above, but there are few days in the season, with us at least, that this is necessary.

What are the objections to facing hives north when they are to be wintered on their summer stands?

The rays of the sun cannot get in at the entrance and warm them up. They are kept much colder, and we consider it a very objectionable position.

CELLAR WINTERING.

SIMEON MIREAULT.—I have but one colony alive. It is still very weak. I put four strong colonies in winter quarters with plenty of stores. In the spring when I set out these four colonies they were medium. The spring was very backward after a long cold winter. I set out my bees on the 7th of May, since then the weather has been cold and rainy giving rare opportunity for bees to gather honey. The bees had abundance of stores and seemed at first to recover. I could observe two frames of brood in each colony towards the middle of May, but the old bees died almost suddenly in a few days, the brood was chilled and finally the whole colony was

stamped out, losing three in this manner. I forgot to say before that the honey in store was a little candied. I tried sugar syrup, but they would not touch it. I concluded, in spite of the cold weather which prevailed during May, that my bees caught the disease in the cellar. I arrived at this conclusion because I saw some that a bee keeper in my neighborhood, who have the Jones' hive and did not care a bit for their bees, wintered them in their cellar with no ventilation raising the hive only one or two inches above the bottom board and their bees came out very strong in spring. The winter before I lost twenty-five colonies, three coming out alive, in the same cellar, the temperature ranging from 38 to 40 degrees, but my cellar was a little wet, enough to make the honey a little candied in the combs. I assign the loss of my bees to the damp atmosphere. My cellar has a subterranean passage for letting the water out and no water is allowed to stay at the bottom. Now to remedy this I have made the following improvement: I made a drain four feet deep (frost proof) all round the house under which I have located my bee repository. This drain will have the effect of removing all nuisances and surplus water. My cellar has no ventilation but I can give some by a pipe connected with the chimney. Now I wish to ask you some questions. After taking notice of my report, which I made as minutely as possible, to what cause do you assign the loss of my bees? They never wintered well in my cellar and they had always ample food. They were always affected with diarrhoea. I have followed your advice to the letter in wintering, making my bees as snug as possible with a sawdust cushion above. 2nd, Is the improvement I made in the right direction? St. Jacques, Que., June 10th, 1888.

Your trouble is evidently in your cellar. In a damp atmosphere the temperature is always felt more than in a dry bracing atmosphere. Then the dampness would have a tendency to mould the frames, turn the honey sour and cause dysentery. The fact of having water in the cellar does not necessarily make the cellar damp, providing you can have proper ventilation. We think your improvements are in the right direction. You should have a sub-earth ventilator under the circumstances.

COMBS ALL AROUND FOR WINTERING.

WM. TIPLING.—While preparing bees for winter, did you ever arrange the frames as follows: Two frames placed, the last one empty the next one sealed stores, then five to eight frames, according to the size of the colony, turned with end of frames resting on the end of the one with sealed stores in, and another frame placed to carry the other end of the frames. This also should have stores in if thought necessary. The hive can be filled out with empty frames if the fall flow should be good. Some would be stored in those empty frames while the brood nest would be enclosed on all sides by comb containing supplies. Unless you advise

differently, I shall try two this way the coming fall. Of course I refer to Jones hives.

Fenelon Falls, June 29th, 1888.

The plan which you wish to try for wintering is exactly similar to the method which we have often described as an arrangement of the brood chamber in spring, by turning the frame around in the hive and using wooden division boards as frame supports, putting two division boards on the outside of frames so turned, and filling in sawdust all around. Instead of using the wooden division boards you wish to use frames filled with stores, having an extra frame in the front of the hive next the entrance. Is this not what you mean? If so, we do not see any objection to having the brood nest so surrounded by sealed stores. We should not advise your trying the plan to any extent until you have first decided that it is going to be a success.

KIND WORDS.

SECTIONS ARE FIRST CLASS.

GEO. STRANGWAYS:—The goods which you shipped me arrived all right. They are up to my expectations. The sections are first class.

Elora, June 29, 1888.

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.

BEETON, ONTARIO, JULY 11, 1888.

BUSINESS DEPARTMENT.

We constantly have applications from customers for supers filled with crates and fitted up with foundation ready to be given the bees on arrival. We have repeatedly answered that we cannot do this with safety. We may put the foundation in the sections and ship them, but the chances are that one section in ten would have the foundation in it on arrival. It is a simple matter to place the foundation in the section, and it is much better that it should go properly wrapped up and safe from breakage, than to reach the customer in a poor state and unfit for use.



PRICES CURRENT

BEESWAX

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

1-LB. GLASS JARS.  
SCREW TOP.



We are just advised of shipment from the factory of the first instalment of 50 gross of the above. They are put up in barrels and hogheads, (the latter for our own local use), and to save breaking bulk when shipping, we append below a table, of the qualities of which the shipment consists, together with the prices per

barrel. In estimating the price, we have calculated the same as for full gross lots, an allowance of 20 cents being made for each barrel and packing (they cost us 35 cents).

No. of Barrels.	No. of Doz.	Prices.
1	8 $\frac{1}{2}$	\$ 6 25
1	8 $\frac{1}{2}$	6 45
4	9 $\frac{1}{2}$	6 75
5	9 $\frac{1}{2}$	6 95
4	9 $\frac{1}{2}$	7 15
3	10	7 35
3	10 $\frac{1}{2}$	7 55
2	10 $\frac{1}{2}$	7 75
1	11 $\frac{1}{2}$	8 45

The D. A. Jones Co., Ltd.  
BEETON, ONT.

ADVANCE IN NAILS.

Owing to a rise in the prices of nails, we are forced to advance our prices somewhat, as will be seen by the following list. All orders will be filled only at these prices.

PRICES OF WIRE NAILS.

Length of Nails.	No. in Pound	Size Wire	Price of 1 Pound	Price of 10 lbs.
$\frac{1}{2}$ & $\frac{3}{4}$ inch	7200	21	22	2 00
$\frac{3}{4}$ inch...	5000	20	17	1 60
$\frac{7}{8}$ inch...	3880	10	17	1 60
1 inch...	2069	18	12	1 05
1 $\frac{1}{4}$ inch...	1247	17	11	1 00
1 $\frac{1}{2}$ inch...	761	16	10	90
2 inch...	350	14	9	80
2 $\frac{1}{2}$ inch...	214	13	9	75
3 inch...	137	12	8	70

PRICES OF BOX OR HIVE NAILS.

	Per lb.	Per 10 lbs.	Per 100 lbs.
1 $\frac{1}{2}$ inch.....	7	65	6 00
2 inch.....	6 $\frac{1}{2}$	60	5 50
2 $\frac{1}{2}$ inch.....	6	55	5 25
3 inch.....	6	55	5 25

THE D. A. JONES CO., Ltd.

'Practical Hints to Bee-Keepers'

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Wenham, Mass., U.S.A.

-THE-

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INTERESTING & INSTRUCTING

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 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.  
TORONTO.

TESTED ITALIAN QUEENS.

Before June 15th, \$1.50 each, after, \$1.00 each; <sup>un-</sup>tested, 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.

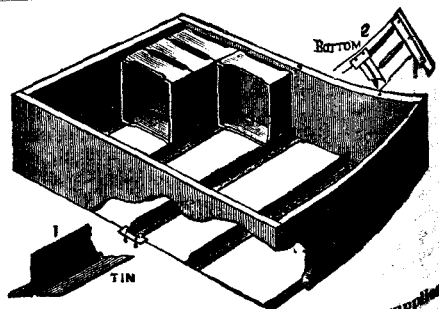
NAPPANEE IND.

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.  
Stateburz, Sumter Co., Sth. Carolina.



For this J. 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
1	Note paper, 1 quire, extra quality, ruled or plain.....	40	80
2	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 1/2, bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....	40	90
2	Scribbling books, 200 pages....	45	
	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	
1	Oil cans, zinc.....	65	
6	Pencil, automatic indelible....	75	1 75
	1 doz. Lead Pencils, No. 852, very good.....	75	
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 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	
2 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 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, 1/2 and 3/4 in.....	1 45	
12 Dextrine, 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, 1/2, 1/4, 1/8.....	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	
3 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 $\frac{1}{2}$ 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	
3 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.**

3 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	
Pens, gross box, 'Bank of Eng.'	3 80	
" " Blackstone or J.	3 80	
Ruler, 2 foot, boxwood, brass bound.....	3 60	

**50 CENT ARTICLES.**

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



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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	12 40
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., BEEFON, ONT.

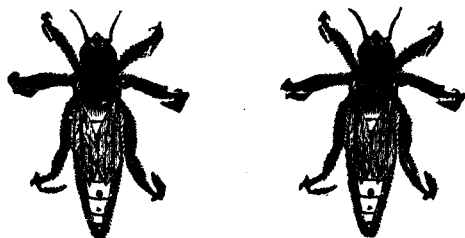
## Manufacturers of and Dealers in Apiarian Supplies

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	Carniolan 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.

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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 **branding** 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.

1/2 lb. by mail, \$1.25. Liberal discount made to dealers and Clubs.

J. COOK, Author & Publisher,  
ST. JAMES AGRICULTURAL COLLEGE,  
LANSING, MICH.

## BEE SWAX 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 Cambridgeville 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,  
BEE TON 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

## 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 Ridgeway station, if by mail to **Henry S. Parker,** MORPETH, ONT.

## BEEES FOR SALE CHEAP.

30 COLONIES OF ITALIAN BEEES FOR SALE. In lots of 3 or more \$6.00 each. Now is the time to send in orders for spring delivery. Bees second on 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.

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

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

## BEEES AND HONEY

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE**, with a descriptive Price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly.

A. I. ROOT, Medina, Ohio.

## BEEES 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

## BARNES' FOOT-POWER MACHINERY



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