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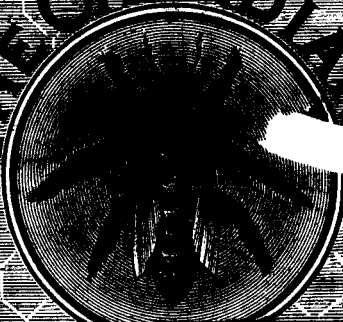
VOL. IV, NO. 23

1888

AUGUST 29

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

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

ADVERTISEMENTS

WE CLUB

The Canadian Bee-Journal.....		
Cook's Manual, cloth.....	\$2 25	\$2 00
A B C in Bee Culture, cloth.....	2 25	2 00
Quinby's New Bee-Keeping (cloth).....	2 50	2 25
Alley's Handy Book (cloth).....	2 50	2 25
Langstroth on the HoneyBee (clh).....	3 00	2 75
Heddon's Success in Bee Culture "A year among the Bees," by Dr C. C. Miller.....	1 50	1 40
A Bird's-eye view of Bee-keeping by Rev. W. F. Clarke.....	1 75	1 60
	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 bee-keepers, 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
 3. WINTERING, and preparations therefor. .15
 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 Fringle. 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.

Barnes' Foot Power Machinery

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 thereto). On application we will forward catalogue and pricelist 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. J. Blader.

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 every one, 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., 75 cents per year extra; and to all countries not in the postal Union, \$1.00

The number on each wrapper or address-label will show the expiring number of your subscription, and by comparing this with the Whole No. on the JOURNAL you can ascertain your exact standing.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

TRANSIENT ADVERTISEMENTS.

10 cents per line for the first insertion, and 5 cents per line for each subsequent insertion.

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

STANDING ADVERTISEMENTS.

	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	250	400	600
One inch.....	\$4.0	\$6.00	\$10.00
Two inches.....	5.50	9.50	15.00
Three inches.....	7.00	12.00	19.00
Four inches.....	9.00	15.00	25 00
Six inches.....	12.00	19.00	30 00
Eight inches.....	15.00	25.00	40 00

STRICTLY CASH IN ADVANCE

Contract advertisements may be charged to suit the seasons. Transient advertisements inserted till forbid and charged accordingly.

CLUBBING RATES

THE CANADIAN BEE JOURNAL

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".....	1.50
" " "The Bee-Hive".....	1.25
" " "Beekeepers' Review".....	1.40
" " "Beekeepers' Advance".....	1.50

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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'Practical Hints to Bee Keepers'

Sent free. Address

American Apiculturist.
Wenham, Mass., U.S.

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 liveliest 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.

FRUIT PRESERVED WITHOUT HEAT I

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.,
Props., TORONTO.

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

"FEEDING BACK."

There was probably never before gathered together so much reliable information upon the above subject as is to be found in the

THE BEE-KEEPERS'

REVIEW.

For July. If you have, or expect to have, unfinished sections, read this number. If you have failed to make a success of "feeding-back," its perusal may show you where you made your mistake. The August issue will be a "Fair No."

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

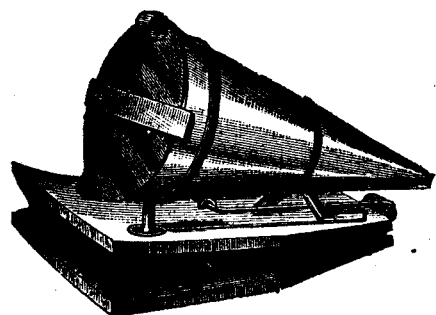
THE PRODUCTION OF COMB HONEY.

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.

CLARK'S COLD BLAST SMOKERS.


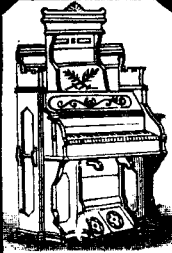


We are making these, with late improvements, and can forward them by mail or with other goods by return post. The prices are as follows:

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

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

"BELL"

PIANOS & ORGANS
ARE THE
LEADING INSTRUMENTS
FOR PURITY OF TONE
& DURABILITY.
CATALOGUES FREE

W. BELL & CO. GUELPH, ONT.

BEE-KEEPERS'

PRINTING.

We make a speciality 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,		
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,

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, GRAND LAYERS.—Untested Italians \$1; a few misdated, in 2nd season, clipped, 50c.; Virgins 50c. Foul brood never in this locality. R. KNECHTEL, Brussels, Ont.

SECTIONS! SECTIONS!

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

CJMB 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.

SACRIFICE SALE!

Business compels me to remove to Toronto. I have 38 colonies of Bees (17 in regular Jones hive, the balance in Jones hives, but 19 inches deep). I will take \$3 per colony cash for the lot. They are principally Italians, and are in good shape. For further particulars apply

JOHN MCKIMMIE
Niagara, Ont.

A RARE CHANCE!

The Authorized Capital by Government Charter of the D. A. Jones Co is \$40,000, the subscribed and fully paid-up Capital is \$19,000. We yet require

TWO PRACTICAL MEN

To assist in the management of our large supply business, who could invest \$2,000 to \$3,000, each of which will be fully secured, and good salaries will be paid. We want those who would remain permanently with the company. Good chance for suitable man. Arrangements can be made to take farm lands in lieu of cash. Principals only dealt with.

D. A. JONES,
BEETON, ONT.

S. ELLISON'S

FINE ITALIAN

FOR REMAINDER OF SEASON OF 1888.

1	untested queen	75
3	" " "	2 00
1	tested	1 50
3	" " "	4 00

QUEENS

Invariably by return mail, and safe arrival guaranteed.
W. J. ELLISON,
Stateburg, Sumter Co., S.C.

NEARLY 30 TONS OF

DADANT'S FOUNDATION

SOLD IN 1887.

IT IS KEPT FOR SALE BY MESSRS.

- T. G. NEWMAN, & SON, Chicago, Ill.
- C. F. MUTH, Cincinnati, O.
- JAMES HEDDON, Dowagiac, Mich.
- F. L. DOUGHERTY, Indianapolis, Ind.
- CHAS. H. GREEN, Berlin, Wis.
- CHAS. HEITEL, Jr., Freeburg, Ill.
- E. L. ARMSTRONG, Jerseyville, Ill.
- F. KRETCHMER, Coburg, Iowa.
- M. J. DICKASON, Hiawatha, Kans.
- ED. R. NEWCOMB, Pleasant Valley, N.Y.
- J. W. PORTER, Charlottesville, Va.
- B. MASON & SONS, Mechanic Falls, Me.
- Dr. G. L. TINKER, New Philadelphia, O.
- D. A. FULLER, Cherry Valley, Ills.
- JOS. NYSEWANDER, Des Moines, Iowa.
- G. B. LEWIS & CO., Watertown, Wis.
- PAUL L. VIALON, Bayou Genla, 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, Freeport, Mich.
- J. M. CLARK & CO., 1409 15th St., Denver, Col.
- E. L. GOULD & Co., Bradford, 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 sample 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, 15c. Name and address, 25c. Any number of lines at 15c for first, and 10c for each extra line. If ink and pads are wanted with stamp, add 15c 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. 23

BEETON, ONT., AUG. 29, 1888.

WHOLE No. 179

EDITORIAL

WE believe that we have now made good all the claims which have been sent us, as against Thomas Horn, at least all have been attended to of which we have had notice. It may be surprising to many to learn that it has cost us over \$200 to do so. We have had one or two complaints this season that advertisements inserted in the CANADIAN BEE JOURNAL were not productive of very much good. This case would indicate that advertisements that do not result in business are not the fault of the BEE JOURNAL, but more probably of the advertisements themselves. If your prices are not right, and if your advertisements are not worded properly, don't blame the paper you advertise in.

At the Provincial, at Kingston, Mr. A. J. Cummings, of Warina, will make a good exhibit of supplies, bees, honey, etc., and he will there represent the CANADIAN BEE JOURNAL, having sample copies for distribution. He will also represent the D. A. Jones Company for supplies.

Mr. G. D. Black, of Brandon, Iowa, intends erecting a small building on the fair-grounds there, in which to make an exhibit of bees, honey, and all machines and implements used by beekeepers. Mr. Black will be supplied

with sample copies of the CANADIAN BEE JOURNAL for gratuitous distribution. The date of the fair September, 11 to 14.

It has been decided by the Executive that the O.B.K.A. will not hold any meeting during the Industrial Exhibition week. It is thought that this detracts from the number present at the annual meeting, and this experiment will tell whether it does or not. We hope that this will not deter those who intended going to Toronto partly with that object in view.

OUR OWN APIARY.

NEARLY A FROST.

WE had a "close call" to a frost on Wednesday night of last week. This whole season has been exceptionally free from frosts, though we have had more cool nights than in any other summer in our remembrance.

HUNTING NEW LOCATIONS—PRIORITY OF LOCATION.

Feeling confident that it would pay to move more colonies from our home yard to some point where fall pasturage was abundant, we started, the second week in August in company with the foreman, to hunt a suitable location. Five miles to the north-east of us is a low flat swamp, where several streams unite in one fair-sized river. A thousand acres of moist woodland is here from which the timber has been called,

leaving the standing trees somewhat scattered. Mints, bonaset, golden-rod, asters and various fall flowers grow in profusion. After examining we declared it a grand location, the late heavy rains having brought the flora to perfection. Our decision was to locate the bees to the south-east of the range, at a point on the outskirts where a farmer had made a small clearing and built on high ground. We started for this point with the intention of renting the privilege for a few weeks, but on the way noticed a bee-hunter, after, as he called them, wild bees. On a contiguous stump were his box and comb and bees were working all around. Said he: "I have several lines," pointing to the south-west. "These are Mr. So and-so's bees. He has sixty or eighty colonies about a mile and a-half over there, but just see those going to the south-east. For the last two or three days I have watched them, and although they have not over a quarter of a mile of woods to go through, I cannot find them. I have looked in every tree on the line and cannot see them. I have several other lines, but must find these first." We saw them coming and going in the direction noted, and some in others, but as they came to and from the south-east so rapidly, we concluded they should be found without trouble. In answer to an enquiry he was certain there were no "tame" bees in that direction within two miles or more. We colored bees whilst they were "loading up" and timed them and found that they went and returned in just seven minutes, proving that they had no more than half or three-quarters of a mile to travel. He had tried to "cross line" them but failed because of leaving a comb whence he had lined them before; had he taken this with him he could have located them quite readily. The bees headed directly for the point where we had decided to locate our colonies, and as we jogged along the road, a large number of bees sucking water at the side of a pond hole attracted our attention. There were ten times as many as should come from a tree or from one or two hives, and we remarked that some one had forestalled us by locating bees with the very farmer we were going to see. Lining the bees from the mud a little to the north of the farm house we found there fifty to

seventy-five colonies in a field behind the buildings. Considering that this apiarist had the "priority of location" we gave up all idea of placing ours near there. The owner said there was no honey in his locality, but here the bees were doing well and the experiment was eminently satisfactory. On our way home we told the bee-hunter we had found the bees, that there were more of them than he expected, and that if he would line them from the mud he would find their home.

In very dry weather it is sometimes easy to find bees by their sucking on mud, as we believe they generally go to the nearest water, and occasionally when it is scarce they even go to houses; we have lined them from both places. Bee hunting is useless during a good honey flow, as they will not work on honey whilst the flowers are secreting nectar.

LOOK TO YOUR QUEENS.

Now, whilst honey is coming in, is a good time to supersede old, poor queens with vigorous ones. All queening and manipulation for this season should be attended to without delay, as after the honey flow is over it is difficult to introduce a queen. All our colonies have young queens except a few hives which have two and three year-olds that we retain for breeding purposes on account of their superiority.

Fastening Foundation in Sections.

BY way of a further explanation of his experiments in the matter of fastening foundation in sections with groove around the four inner surfaces, Mr. T. Bcnner-Chambers, F. L. S., says in the *British Bee Journal*:

In looking over the CANADIAN BEE JOURNAL, vol iv., No 15, I find they have copied from the *B. B. J.* the following remarks of mine, viz.: "I have seen a remark somewhere that foundation is apt to fall down when placed in a section with a groove on all the four inner faces, unless it is fastened at the top. . . . I have, during the past month, given this matter a very careful test, and find the groove on all the four inner faces is all sufficient."

I wish to point out that the above is based upon very careful experiments side by side with foundation fixed in various ways, several sorts of foundation being used. The experiments were directed particularly to find out where

failures might arise; and I might here say that the past two or three seasons' experiments have been fully confirmed; for, *first*, I find Dadant's extra thin super foundation, when the section is filled with honey, leaves no trace of midrib; *second*, I find the groove on all the four inner faces enables the foundation to be very quickly inserted and kept in place—the bees fastening the foundation right round "first thing they do."

I have also always obtained the best capping by using Dadant's foundation; the bees appear to commence quite naturally upon it and utilise every particle.

During the past winter I was somewhat surprised to find a few sheets of foundation had warped entirely out of the grooves; upon consideration I find intense cold had produced this, but in no instance did a single sheet of Dadant's foundation do this. It is not necessary in any case to have a thicker section than usual, the grooves can most easily be made by means of a circular saw or a small plane. Doubtless a split top-bar is necessary when some kinds of foundation are used, but a nasty black line of wax spoils the beauty and symmetry of a section when placed on the table; for the line stands uppermost in full sight. The section should be placed on the dish in the same position as it stood in the hive, this enables slices to be cut without any honey running down the capping.

I should also like to point out, I do not give first place to sectional honey worked upon foundation. Although the line of wax upon split top-rail sections enables us to judge of the foundation, in a slight degree, that has been used, still, if we have a guarantee, *bona fide*, that extra thin foundation of pure bees-wax has been used, we give the preference to the sections that do not show that foundation has been used.

Many will think I am exceedingly strong against sections showing lines of wax, but, I might say, some time ago I had glass sections made which showed four lines of wax for each section. There are two equal and similar square rims of glass of one piece, the foundation is placed between the rims, the rims are pressed together—behold! the foundation most firmly fixed in a moment, and *the lines of wax almost invisible*. The two rims, now virtually one, are just sufficiently large to place within a 1-lb section. The thinnest foundation is used between the glass rims. These glass sections may be used alone, in similar crates to the Raynor crates, with glass dividers, having quarter-inch spurs on each side of such dividers. The whole row is then compressed to keep each part in place.

Tref-Eglwys, Caersws, Montgomeryshire,
July 26th.

For the Canadian Bee Journal.

MAPLE SUGAR FOR WINTERING.

IN a late issue of the JOURNAL I noticed a question by Mr. Morrison, desiring to know if maple sugar was good for wintering bees on, and in your note you advise him to try a few colonies and report. Now having tried maple sugar, I will report and perhaps have Mr. M. form a like experience. Last fall, to test the quality of maple sugar as winter food, I fed four colonies entirely on the same and put them in different parts of the cellar together with about one hundred colonies prepared in the usual way; the cellar was made for the purpose. The temperature was never lower than 42° nor higher than 47°.

I found on removing them that all four fed on maple sugar were dead, with plenty of stores in the hives, and they were the only ones that I lost that had sufficient stores: I lost a few by starvation. Now all concerned may draw their own conclusion; I have.

The season for the township bee-keepers has been a very poor one. I don't believe that I have taken more than 300 lbs., but have the satisfaction of knowing that my bees have plenty to winter on. I have not used the extractor this season. I had the opportunity and pleasure of calling on Wm. Nixon, of Granby a few days ago and found him disgusted with the business. He declares this to be his last season; a few years ago this gentleman owned about 300 colonies.

I do not intend to give up yet. Being a farmer I do not devote all my time to the apiary; if I did, it would be a different thing. We are having lots of rain now and fall bloom is looking well.

R. P. SMALL.

Dunham, Que., Aug. 20, 1888.

UNCLE TOM'S OPINION.

OF BEE-KEEPERS AND THEIR METHODS.

"PRINT this letter just as it is written," says Uncle Tom, and indeed to do otherwise would be to spoil the caustic sarcasm and undercurrent of humor which pervades the whole. He says:

About a year ago I wrote you my first and last epistle; I think the title of it was, "An admonition." Thank you Mr. Jones for giving it that title; I never could have thought of such a high sounding title myself. Howsoever you boys have done fust rate since then and it was that tittle that done it all. I like things that sound high. In the query department some

answers sound as tho they nu all about it but wasent agoin to git off their hoss to tell. I wouldnt neither, taint dignified. You print lots about fowl brood. What on airth do peeple want to make their brood fowl for & then go botherin you about it. Why dont they quit openin their hives every whip stich & goin through & overhawling & tumbling up & airin the brood on cold days & spreading brood & smokin brood to heavy & feedin 1 day & starvin the next. In fact, goin trough a certin or uncertin amount of tom foolery that discourages the bees from trying to remember what they fed the brood last or whare they left of feedin ennyway, & in the confusion which some fools make 3 times confounded, they will forsake their nest or brood in spite of you. Havent I heerd the woman say more an once, young ones come away from that hen's nest, if you dont shell forsake it. I say you young ones if you dont quit handling them eggs shee sets on every one or half on em will rot. I haint got no rotten brood in my hives; never had for 20 years or thereabout that I've kept bees. Don't think I will have neather "kos why?" I dont play none of those dod rotten tricks on mine. The wust of all is goin & dosin the innozent bees with asid after ye killed their babys yourself. Say spose you come to my house & say you haint got no time to sit down but just the same you have an ower or 2 to stand in the cold with the door open talkin to me, & the baby in the cradle catches cold, has the croup & dies. Next day you come and say to me, I fetched some asid to dose you with so your baby wont di. Say, afore you stood thar roooth time as long as you did afore youd pick yourself up, if you could, & think youd ben shooin mules. Now I'm speakin truth. You may keep on makin carapiller-horse-radish-pollywog-tincture-blue-ruin bee hives, put your bees in them & jounce tumble whop over—yes, they got so now they turn um up side dow. Keep rite on, if you can think of enny more fiendish tricks play it on um, but mark my word if you keep on with your science many years longer you will be crying worse than you are now. I no what I say or I wouldnt say it youd no it bimby too; the proof of the pudin is in eaten it. You extract all you can from the brood chamber; the little grubs like such a ride, it gives them centrifugal ideas and turns their heads to business dont you know, helps their digestion, prepares them for the duties of life. The oower that will through out honey wont through a grub or soft young bee all up in a heap & break his neck will it? Oh, no, its quite in accordance with nature, he may have a have a head on but a brake neck. I never open

one of my hives from year to year, that is I dont stir the frames; bees dont get over such a tumult in 8 & 40 ours. Spose some friend would come & sarve your house as you do their hive, pull off the roof with a crack and a jam clawds of smoke down on you and your family when you were quiet, then jurk up one section of floor after another, lettine you tumble down cellar and hit your head on the pork barrel kill some of the family & rais bedlam generally, taking some parts of the house, swing them round like litning with you children on them, break their necks, rob your house, complain cos you was cross about it, smoke you some more, then leave you. Say do you spose youd work enny more for a week. I found a humble bees nest under a piece of a rail in the lane when I was a boy, but there sells wasent quite full of honey so I didnt quite rob it but left it to fill up. I got the bees so tame or discouraged that I could do most ennything with them only compell them to make honey. Young as I was the truth dawned upon me at last. Discouraged so much they gathered but little, & would when I came after it eat that up before I could get it. Years later when I commenced keeping honey bees instead of humble bees I remembered that lesson & it has bin verry profatable to me. You keep crying about honey being so cheep, why dont lesson your expences raising it. My hives cost me about 18 cents each. I make them myself & dont count my time in with the 18 cents of course, but I can take the boards from the lumber pile and make 10 or 12 hives a day, so they cost about 10 cents each for my time and labor, which aint worth much for I do it in stormy weather. But I aint talkin about hives now, Im talkin about fowl play with brood. Why haint hundreds of swarms af bees around here done as well as mine; mine give me about 50 pounds of comb honey apiece in $4\frac{1}{2} \times 4\frac{1}{2} \times 2$ sections; you ought to see it. Poor season, eh? Season aint ben the best, but its good enough for me looy as its all the season we gat at present. Mark this! if you all dont make 2 of your swarms into 1 rite away as I did last year youd be crying next spring worse than you are now. You wont do it though cos you are to stingy & afraid your loosing stock. That idea your loosing aint true.

UNCLE TOM.

Wayne, Erie Co., Pa.

Send 5c. for samples of our handsome lithographed honey labels. In printed labels we have over one hundred designs.

For the CANADIAN BEE JOURNAL.

AN INTERESTING LETTER FROM SWEDEN.

BURYING BEES—ONE-SIDED FOUNDATION—AN IMAGINED "RING."

RETURNING home from a 14 days' excursion trip to the Agricultural Industrial Bee Exhibition for the Scandanavian, Sweden, Norway and Denmark at Copenhagen, I found your valuable JOURNAL of July 18th, and in it an article headed "Burying Bees,"—this one relating to my former letter regarding this matter. The results I have given in *Svensk Bittidning*, always sent to you, but probably you will not have observed it, and then it has passed away. The result of burying bees has been very good indeed when properly made and a total loss when improperly made.

The best place for burying bees is a gentle, sandy slope, where the ground can be kept dry. When the bees have ceased to fly, the frosty nights are just come, you will make the ground plain, and cover it with sufficient boards (1 inch) laid close to each other on scantlings, 2x3 inches, 3 inches down on the ground. Upon these scantlings the hives are placed in two rows, the extremes against each other and 12 and 18 inches distant. The boards below wide and long enough to hold the hives. On each side of the hives are put in the ground poles or scantlings 3x4 inches to form a "ridgelead," each pair at four or five feet distance from each other. The empty room between b and c and the back end of the hives are packed with snow as well as over the tops of the hives, but before this last packing you have to place boards upon scantling over the hives, when the straw will not fall down between the hives and shut them up, those entrances always to be kept open to full width. This done, you have to cover the scantlings above with boards and then you have got a roof over all the hives. Now you have to cover the end of the stack with six or eight inches of straw and also a layer of peat and straw, dry, and four to six inches thick upon the boards all around and bend it over the top boards on each side. Then you have to dig a ditch around the stack, this to be opened not more than 15 inches from the scantlings upon which the boards are laying, the ditch to be sufficiently deep and broad to give sufficient earth for covering the stack 12 inches thick, the earth to be well packed all around. When you have given an outlet for the water of the ditch the working is done*.

Of course you will have to place the hives in the stack-place in evening time, when the bees are quiet and if then disturbed it is but to leave them there until next morning early, when they are to be covered.

As regards the Koerb's comb foundation (one sided with cells of double depth) this summer it has proven itself a failure, the queen filling them with eggs before the bees had drawn the cells long enough and, furthermore, when fastened on the one edge of the frame the bees

are inclined to build a new comb at the other edge of the same frame. This is not the case with the combs made by a pupil or scholar of mine, Mr. Carlejon, who is preparing all the comb with cells of irregular shape, the combs always to be fastened on the inside of frame. You will remember Mr. Ivar T. Young, who in last autumn did write to you and other editors of Bee Journals, asking for the benevolence of yours and all other eminent bee-keepers of Canada and the United States of America and entering your celebration at the same time as Mr. Cowan, a real gentleman and a real first-class bee-keeper, a gentleman not at all liable to any lie whatever. Well, Mr. Young has a very good heart and will always repay a benevolence shown to him, consequently he has written letters from his transatlantic trip, informing his country (through the medium of his paper) that he has been elected an honorary member of the Ontario Beekeepers' Association as well as having in acknowledgment as a token of benevolence got a meerscham pipe. Well the less to be said of those things the better. The celebrated Mr. Barnum is not the only native of America; you will always find the same creature somewhere else.

But in another he has written in connection with his views respecting the Heddon hive that you have the patent right of it for Canada, that you are selling the hive, but always prefer to sell your own hive.

About this it is nothing to say, but it becomes an item when below he does say: "Furthermore I am compelled to enlighten or inform you that, sorry to tell it, such men as Jones, Professor Cook, Heddon, Hutchinson and others belong to a "ring," the only or sole purpose of which is to get the money of other stupid bee-keepers into their own pocket, and that without any trouble whatever." This way of writing is a rather strange way of showing his gratitude or thankfulness for all the kindness bestowed upon him. As we in Sweden always consider just the same names representing the first class of gentlemen, leaving to them the greatest possible confidence, I should be very glad to know if this confidence for the future can continue or it is not more to be relied upon. Hope you will openly, candidly, and as a man of honor, tell me the very truth.

For two years I have been using the Heddon hive. I do like it very much, since I have done away with the screws and still have the cases and frames each or all at once to be reversible. Instead of screws I use iron running across all the ends of the frames, one iron at each end, the irons to be inserted half-way in the ends of the case, each end of the irons to be inserted into suitable cuts in the ends, but *not* going through the sides of each case.

Again, as for wintering in clamps or stacks, to winter the bees in this way here in Sweden, the people have been successful as well at 55° as at 63° north latitude.

We have wintered successfully, too, in cellars above the ground—cellars made of boards nailed to poles with eight inches of dry sawdust between the boards, and twelve inches of sawdust packed upon the top of the cellar.

Don't you believe that we hitherto have been too careful about keeping our bees too warm in the winter time? I do believe that Mr. Clark

*In the one end of the stack you can have an air pipe made of boards 1x4 inch; but it is rather better to have none, but it is valuable to have an empty case below this, where the bees cluster.

is quite correct in his hibernation theory, and that Mr. McFadden's history is not at all a myth. In vain here we have tried to let the bees freeze by 15° C. when top and cover were taken away. This we did, intending to give McFadden's way of wintering a trial, but we couldn't get them to freeze. 15° C. was too little. They were always too lively. In my last, I told you about robbed bees, thrown away (after the honey was taken out of a skep); dry and cold winter during following two months, there being plenty of snow. In the next March the bees were in the skep, bottom up and without bottom board, the skep full of snow, but the bees *living!*

Why should all other insects hibernate in winter time except the bees? They are doomed to our improper care to wear themselves out to our own detriment.

YOUR CANADIAN BEE JOURNAL is very valuable, and I will bind it for future use.

Yours very truly,
H. J. STALHAMMAR.

Gothenburg, Sweden, August 15th, 1888.

We will comment on your interesting letter next week. We are very much surprised at what you have said with reference to Mr. Young's writings. Not understanding Norwegian, we of course could not read what Mr. Young had written. That gentleman promised us a translation of what he wrote, but he has never given it to us. Perhaps he did not wish us to know what he said of us, hence his silence.

From Gleanings.

Three Ways of Working for Comb Honey.

FRIEND DOOLITTLE BRINGS SQUARELY BEFORE US A MATTER OF CONSIDERABLE MOMENT TO HONEY-PRODUCERS.

THE usual mode of working for comb honey is what is known as the "tiering-up system," and without doubt there are more who use this system than there are of those who use all other systems combined; yet this does not certainly make it true that this plan is the best one there is, by any means. It often happens that the majority is not in the right, and so after I had proven; to my entire satisfaction, that there was a better plan to work on in raising comb honey than the tiering-up system, I forsook the same and turned my attention to other plans. My chief objection to the tiering up plan was that not so much honey could be obtained by using it, and, worse than all the rest, if the utmost care was not used, the result would be lots of unfinished sections in the fall. These unfinished sections have been an "eye-sore" to all the users of this plan, as the immediate past will testify, for many are so dis-

gusted with them that they recommend that they be burned up, while a whole issue of one of our bee-periodicals is used in telling how to save them by way of feeding back extracted honey, in order to get them filled.

The next system most in use is what is termed the "side and top storing plan combined," which I adopted upon leaving the tiering-up plan. By the use of this plan, more honey can be obtained than by any other plan I know of, except by using the lateral plan, of which I shall soon speak. The trouble with the side and top storing plan was, that it required much work; yet as I go over the results of the past while using it, I am convinced that the extra amount of honey obtained by the use of it more than paid me for all the extra work the plan required, over the tiering-up plan. An average yield of over 80 lbs. of comb honey per colony for a period of 15 years is a record never obtained by any of the advocates of that plan. A few years ago D. A. Jones came out with a wholly side-storing plan, the young brood to be kept in the centre of the hive by means of perforated zinc, while the sections were to be placed between that and the older brood, which was to be kept on the outside. One trial of this proved, so far as I was concerned, that the plan was fallacious; and although he told us he would explain, some years ago, I have never seen a word from him on the subject since; hence I have not enumerated this in the above three plans at all. While working with the side and top storing plan, I left a passageway under the side boxes, so that any bees which might be scattered around over the top and side of the hive, after any manipulation, could get back to the cluster instead of dying there, as is the case where no means of outlet is provided. This caused many to write me, asking if I meant to have this so; "for," said they, "the bees will go around under these side boxes up into the cap over them, and build comb there, which they fill with honey." I told them that this was as I wanted it, giving the reasons for so leaving it, and telling them if any colony so persisted in doing, to give more room by adding sections at the sides. Well, I often got caught in this same fix myself, when I would be a little tardy in keeping up with the bees, so that I have often had from five to fifteen pounds of honey built in the cap of the hive, the bees having to travel from 25 to 30 inches entirely away from the brood to get there. This leaving the brood and storing honey in such amounts in the cap led me to adopt what I term the "lateral" plan of obtaining section honey, which plan gives me fully as much honey as could be obtained by the side and top box plan, with as

little work as is required when using the tiering-up plan. The largest part of my hives are of the kind known as the "chaff hive," which gives plenty of room on top for all the room required by the largest colony, without tiering up. Over the top of these hives I have placed a queen-excluding honey board, the queen-excluding part going over only the brood-apartment to the hive, the rest being a thin board to cover up the chaff. When the honey season arrives this is put on (quilts being used, together with sawdust cushions up to this time), and from three to five wide frames holding four $1\frac{1}{2}$ pound sections each are placed directly over the brood. As soon as these are well occupied with bees at work I add one or two wide frames at each side: and when these are occupied I add enough more to cover the top of the hive, if so much soom is needed. In this way I accommodate the size of the colony with the needed room, neither giving too much nor too little, as must of necessity occur where the T super and others of a set capacity are used. As soon as the first that were put on are filled, they are taken off (handling by the wide frame only, so five pounds are handled instead of single boxes), when the partly filled sections at each side are slid along on the honey-board till they come together in the centre, when the empty ones are placed at the sides. As the honey season draws to a close, no more empty sections are put on, so that, when the season is over, I often have but one or two wide frames of sections on the hive, thus doing away with more partly filled sections than I really need for bait sections the following season.

G. M. DOOLITTLE.

Borodino, N. Y.

No doubt many of our readers will be pleased to see how friend Doolittle manages his apiaries for comb honey. His reference to ourselves giving the explanation is like thousands of other things that we have forgotten to mention when it was our intention to. Having so many things to attend to our memory does not always serve us, but we will always be pleased to have our friends call us up at any time to explain. Our first testing of the plan proved conclusively that comb honey could be taken with considerable success where skilled labor was used, and with our style of hive. We presume the reason friend Doolittle did not succeed better was because his hive was very much smaller and of a different kind. Some of our best Canadian bee-keepers are still practising this mode of taking comb

honey, although it has been much improved on of late. The comb honey taken in this way has been frequently exhibited at Toronto, and only last year a Mr. Chalmers showed a frame of comb honey just as lifted from the hive, with all of the nine sections so perfect that it would be exceedingly difficult to find nine equal to them taken in the same way, without selecting. The system has been varied more or less by different bee-keepers, but when applied to the Jones hive which holds 12 frames about 11x13 inside measurement. With our Combination hive and top story system we know, from experiments, that much better results can be obtained, and we are convinced that bees can be made to store honey from two to three feet above the brood chamber more rapidly than they will at the side of same. When the honey is coming in rapidly it seems to make little if any difference whether they carry it up six inches or three feet above the brood. Suppose your hive was gathering say 10 lbs. a day in the height of the season, we don't think when the top stories are properly arranged that the closest observer could find one-quarter of a pound less in the day's work.

W. Z. Hutchinson in The Country Gentleman.
Removal of the Queen.

QUITE a number of bee-keepers assert that more honey can be secured by removing the queen about three weeks previous to the close of the honey harvest.

The theory is, that stopping the production of brood turns the energies of the bees entirely into honey-gathering; besides this, no honey is used in feeding the brood. Removal of the queen also prevents increase, which in our apiaries, is especially desirable. When the bee-keeper has a large number of colonies, and prefers honey to increase, the prevention of swarming is quite desirable. In some localities and seasons the honey flow is early and of short duration, and if the bees turn their energies in the direction of swarming, but little surplus is secured.

When a queen is removed, a frame of brood covered with bees is usually taken with her, and they are put in a small hive, where they are kept until the time arrives for their return. After her removal, if preparations for swarming have not already been commenced in the old hive, queen cells will at once be started, and the bees thus endeavor to retrieve their loss.

At the end of eight or nine days the queen cells must be cut out and the bees given a frame of eggs or unsealed brood from which they can start another batch of cells. Just before this lot of cells hatch (in eight or nine days), they must be cut out, and another comb of brood given. This method of management must be continued as long as the colony is left queenless, the bees seem to lose courage; they must have the queen or the hope of one.

The small hive containing the removed bees and queen is sometimes placed upon top of the old hive, and when they are returned, the bees that have learned to recognize the upper hive as their home, will, upon finding it gone, gather in a cluster upon the top of the hive, where they will remain a short time, and then take up a line of march down over the front of the hive to the entrance, and join the parent colony again.

It will be seen that this method of removing the queen entails considerable labor, and is, we think, not advisable, unless to prevent swarming as the production of brood can be greatly curtailed by contracting the brood-nest, which is a short and simple operation, requiring very little work.

The method of removing the queen that strikes us the most favorably, is that of allowing the bees to swarm, then removing and destroying the old queen, and allowing the bees to return, and then, at the sixth or seventh day, cutting out all the queen cells except one. This prevents increase, deprives the colony of a laying queen for about eighteen days, besides furnishing it with a young queen.

From Gleanings.

At what Age Should Brood Combs be Renewed ?

I HAD laid this upon the shelf as a settled question, saying that I had used combs 25 years old, and could see no difference between bees raised in them and bees raised in new combs. But if, in the course of years, a lining is left in the cells sufficient to increase the division wall an eighth of an inch, may there not have been a difference in the size of bees raised that would have been noticed by a more careful observer? Not long ago a writer in *The Ladies' Home Journal* advised, if I remember rightly, that brood-combs more than two years old should be renewed. Undoubtedly that is rather wild advice; but in the *British Bee Journal* for Nov. 10, 1887 (and the *B.B.J.* is not addicted to giving wild advice), occurs the following: "We may fairly suppose that three batches of brood are hatched from the same cells—taking the brood-nest only—in every

season. In five years, therefore, we shall have fifteen layers of exuviae in these cells, provided they are not removed by the bees, which experience seems to prove they are not. The brood cells, consequently, are much reduced in size, at this age, and the bees reared will be small in size. We have used the same combs fifteen years without a break, when the brood cells became so diminutive that the bees hatched therefrom were a pigmy race, and the combs were as black as Erebus, and pollen-clogged. This was before the days of foundation. With our present advantages we do not think it would be profitable to use combs longer than four or five years." Dzierson, in his book, p. 28, says, "The more frequently a comb has been used for breeding, the darker will be its color and the thicker the walls of the cells, the latter becoming more and more narrow and less and less fit for use, so that in time it becomes necessary for the combs to be renewed, although in case of need the bees themselves partly remove the casings, or even pull down the cells entirely."

Now, I suppose there are a great number like myself, with combs by the thousand more than four or five years old. We do not want to have the trouble and expense of renewing all these; but if there is any gain in it, we must do it. Although some of these things have somewhat shaken my former views, I confess I am anxious not to be convinced that it is necessary to remove combs four or five years old, and will be obliged for any facts that may help to stiffen my faith.

Looking at the old comb an inch thick, and pulling it apart, I find it has a division wall made chiefly by the successive deposits left by the brood at the bottom of the cells, these deposits in each cell being about a sixteenth of an inch thick. If such addition were made to all parts of the cell walls, the cells would be each one narrowed about an eighth of an inch, making the cell less than half its usual diameter; and it is easy to believe that bees raised in such cells would be a "pigmy race." In the comb under examination, however, I find that the addition is only at the bottom of the cell—at least the addition to the side wall is very trifling. Is this the general rule, that, in old comb, the bottom of the cell is gradually filled up, but that the diameter of the cells remains practically unchanged? If this be the case, then perhaps we may conclude that the only matter necessary to consider, as combs grow old, is to see that sufficient additional space is allowed between combs to make up for their increased thickness. Is anything further necessary?

Marengo, Ill.

G. C. MILLER.

From Gleanings.

Microscopic Tests of Honey—Are They Infallible?

FRIEND COOK RENDERS IMPORTANT SERVICE IN ANOTHER SERIOUS CRISIS.

FREND Root:—Your inquiry in reference to the reliability of the scientific tests for honey is very opportune. I made, the past winter, in revising my book, a careful investigation of this whole subject, and I am led to doubt the existence of a sure test for honey, either chemical or by aid of the polariscope. As you doubtless know, there are two kinds of sugars—cane, and the glucose group, or reducing sugars. The latter are so called because they reduce the copper sulphate, when made strongly alkaline by the addition of caustic potash. Of the reducing sugars, we have the glucose of our factories, honey, liver sugar, digested starch, or the sugar of digestion, etc. The chemist using the copper test as given above calls all these sugars identical, simply because they give the same reaction with the copper sulphate. I don't believe they are the same. If so, why will bees forsake common commercial glucose for honey?—or why will they die on the purest commercial glucose, and thrive on good honey? Cane sugar will not reduce the copper salt; and when eaten by animals it must be digested and assimilated. Thus when we eat cane sugar we do what the bees do with nectar—we convert it into a reducing sugar, very likely the same as honey.

As will be seen by the above, nectar contains cane sugar. Indeed, the cane sugar in nectar often equals in amount all the other sugars put together. Analyses show, however, that the amount of this cane sugar in nectar varies. Let this be remembered: *The amount of the different sugars varies in the nectar of different flowers.* Again, as the bee sips nectar it is mixed with the secretion from the racemose glands of the head and thorax; and this acts like our own digestive secretions on the cane sugar, and changes it to reducing sugar. Now, suppose the bees are gathering very fast from the basswood, for instance, where a single colony may gather over 20 lbs. per day, does it stand to reason that they can digest this nectar as perfectly as though they were gathering from some source where they secured their stores in mere dribbles? Thus in such cases of very rapid gathering the digestion would be less perfect, and the honey would contain much cane sugar. May this not account for the marked sweetness of basswood honey? In this connection it is suggestive that, in the various analyses which have been made of

honey, the amount of cane sugar varies. Thus I find the analyses generally give from one to three per cent., while in some cases even twelve and sixteen per cent. of honey has been found to be cane sugar. *Here, then, mark the second uncertainty. Owing to the more or less rapid gathering, the digestion of nectar is more or less perfect.* The chemist, then, would find much cane sugar, and would report adulteration, when the honey was entirely pure, right from the bees, and through them from the flowers; but owing to imperfect digestion the cane sugar was very prominent. Such honey would be much sweeter than though more reduced, or digested, and so have higher intrinsic value.

We see, then, that the chemist can not tell us absolutely whether honey is adulterated or not. There is reason to believe that absolutely pure honey has been pronounced as probably adulterated. The chemist was honest and able, but did not understand the whole question or its many difficulties.

But what of the polariscope test? This test depends on the property of various substances to deflect the rays of polarized light to the left or right. Thus, cane sugar changes the rays of polarized light to the right; so does dextrose, one of the reducing sugars of honey. On the other hand, lævulose, one of the elements or sugars of honey, bends the ray strongly to the left. Dextrose and lævulose are often called invert sugars; for when cane sugar is heated with a mineral acid like hydrochloric it is changed to dextrose and lævulose. Dextrose and lævulose are obtained from fruit as well as from honey. Glucose is a term used to designate all the invert or reducing sugars, and is exactly synonymous with grape sugar.

Now, usually honey rotates the ray of light, owing to the lævulose, from two to twelve degrees to the left. FROM TWO TO TWELVE. Are not these numbers very suggestive? In the first case, two degrees; there was likely much dextrose, possibly aided by not a little cane sugar or sucrose; while in the latter case the lævulose was in the ascendancy. Now, suppose the ray bends wholly over to the right. "Hey ho!" says the scientist—"adulteration!" when, in fact, it was pure honey; but the cane sugar and dextrose are still more pronounced. Surely, if the ray often varies from two to twelve, left-handed rotation, we may certainly believe it will often show a right-handed deflection. I fully believe that we have had as yet no reliable methods to detect adulterations.

I am very certain that adulteration is never practised by bee-keepers, and is very rarely practised if at all in these days, by dealers. This opinion is not a mere guess, but the result of extended inquiry.

A. J. Cook.

Agricultural College, Mich.

SUNDRY SELECTIONS.

BEEES DOING WELL.

JNO. LINKLATER.—My bees have done well this season. From six colonies I have now 25, and will have 300 lbs. of extracted honey. I received the queen from the O. B. K. Association in safety and I have raised from her a good many queens.

Grand Valley, Aug. 20.

S. JACOBS.—I started this spring with 16 colonies, increased to 24; took 250 lbs. extracted honey but no comb. Basswood was a failure. The last two weeks they have been doing nothing. Golden rod looks well, but it is not out yet. The nights are cold.

Ridley, Ont., Aug. 21.

HOW LONG THE QUEEN LAYS.

BEGINNER.—Does a queen lay eggs all the year?

No.

A QUEEN'S LIFE.

How long does a queen live?

We have had them live five years and over, but the general life of a queen is two to three years.

Do young queens lay drone eggs?

Not if she has been mated before she begins to lay, but sometimes they lay them before.

LONGEVITY OF WORKERS.

How long do the bees live?

From sixty to ninety days in the working season, after they commence, but while in a state of inactivity in fall, winter and spring, they might live from six to nine months. We hardly think a worker ever sees its anniversary.

THE BEST BEES.

Which are the best bees to gather honey?

Ask twenty poultry men which breed of hens will give the best results, and you will get twenty different answers to suit twenty different breeds. We prefer a cross that will give us good honey-gathering qualities, not forgetting minor details.

SWARMING.

WM. H. WETHERBEE.—Will you please inform me through the C.B.J. at what date it is desirable that bees should swarm. I have read that the earlier they swarm the better. I have also seen it stated that it is advisable to delay swarming by taking brood from the strongest colonies to strengthen the weakest ones.

Granby, P.Q., Aug. 13, 1888.

It depends solely on the season and locality. Swarming usually commences here about white clover bloom, and continues till the end of basswood bloom. We sometimes have swarms during fruit bloom in spring but unless the weather is very favorable, would prefer not to have them till white clover bloom. Then again they occasionally swarm in the autumn when gathering from buckwheat or fall flowers, but this season has been an exceptionally poor one for both swarms and honey, and we had very few swarms until our honey bees commenced on the fall flowers. The time they swarm here would not be suitable in more southern localities. June and July are generally the months for Ontario.

GETTING BEES OUT OF SURPLUS BOXES.

A SUBSCRIBER.—Please answer through the BEE JOURNAL how bees can be got out of surplus boxes of 20 to 30 pounds without injury to the bees.

Use smoke to drive the bees down and out of the box, as well as possible; then remove the boxes, when most of them may be driven out by smoke. By placing the super in a box or barrel, and covering it over with a thin cloth, the bees will run up to the light on to the cloth, and by turning it over a few times all the bees may be got out. Some carry the super indoors and allow the bees to pass out of the window, while others raise it on a cool night about an inch or more above the hive, leaving one corner to touch so the bees can run down. Some raise it two or three inches, putting a small piece of comb under the super on top of hive for the bees to climb down on. Most of them will go down in one night, when the super can be removed in the morning before robbers make their appearance. If you have boxes of 30 pounds of honey you certainly are more fortunate than most of us. If we had the honey it wouldn't take us long to get the bees out of the supers.

CONVENTION NOTICES.

The next meeting of the Haldimand Bee-keepers' Association will be held at Fisherville on Saturday, September 1st, at 1 o'clock, when the following questions will be discussed:—1. How to feed and what to feed. 2. How to unite colonies. 3. Report of season. 4. Question Drawer. A full attendance is requested.—E. C. CAMPBELL, Sec.

KIND WORDS.

THANKS.

ALEX. FERGUSON.—I received the bees all right, for which accept my hearty thanks. I have a fine field of buckwheat in bloom, and if the frost keeps off they will gather considerable.
Moorefield, Ont., August 13, 1888.

BUSINESS DEPARTMENT.

Read the grand array of premiums offered on page 455 of this issue.

For some time past we have filled all orders for queens by return mail. We have a good supply on hand, especially of Carniolan crosses, which will be sold at 20% discount, where two or more are ordered at one time.

Read the grand array of premiums offered on page 455 of this issue.

PREMIUM LIST.

The following premiums are now offered to readers of the CANADIAN BEE JOURNAL. We have made special arrangements for the purchase of these articles, and are in a position to make the offer we do. One dollar must be sent with every name that is sent in, though they do not need to be sent all at one time, nor from one post office. The subscribers may be either new or old. If working for any of these premiums, the person so doing must advise us of the fact when they send in the first names. All articles which have to be sent by freight or express, will be sent, charges to be paid by recipient :

TWO NAMES WITH \$2—	
One copy Heddon's Success in bee culture	50
" Hutchinson's Review, one year	50
THREE NAMES WITH \$3—	
One copy Miller's, Year among the Bees.	75
" Automatic Fountain Pen.....	75
FOUR NAMES WITH \$4—	
One copy Cook's Manual.....	\$ 1 25
" " A.B.C.—Root.....	1 25
" " W'kly Globe to 31st Dec. 1889.	1 00
" " Mail " " "	1 00
" " Empire " " "	1 00
" " Western Advertiser	1 00
" " Witness, Montreal.....	1 00
" " Gleanings, one year.....	1 00
One year's subscription to any \$1 weekly or monthly published in either Canada or the United States.....	1 00
One Smoker, No. 2, plain.....	1 25
" Honey Knife, ebony handle.....	1 15
Two best Canadian Feeders, made up..	1 00
One Mitchell Frame Nailer.....	1 25

SIX NAMES WITH \$6—	
One Force Pump with Sprayer.....	2 00
" pair Rubber Gloves, post paid.....	2 00
" Comb Carrying Bucket.....	1 50

EIGHT NAMES WITH \$8—	
One set Anatomical Charts, with key....	2 50
" Queen Nursery (20 cages).....	2 50
" Uncapping Arrangement.....	2 25

TEN NAMES WITH \$10—	
One No. 1 Wax Extractor.....	4 00
" Heddon H. (made up) complete, ptd.	3 25

TWELVE NAMES WITH \$12—	
1000 Sections—one piece—any size....	4 50
One Copying Press, Simplex.....	4 50
Individual right, Heddon Hive.....	5 00
One Ripening Can.....	4 50
" Bee Tent—netting cover.....	4 00

FIFTEEN NAMES WITH \$15—	
Seven Combination Hives, fitted up for extracted honey, with second story..	6 30
One Extractor—any size frame—old style gearing.....	7 00
One Lawn Mower, best make, 12 in.....	6 50

EIGHTEEN NAMES WITH \$18—	
One Farmers' Union or Family Scale, ½ oz. to 240 lbs.....	8 00
One Extractor—best made—to take any size frame.....	8 00

TWENTY NAMES WITH \$20—	
10 Combination Hives, for comb honey.	9 00
10 S. W. Jones Hives and Frames.....	8 30

TWENTY-FIVE NAMES \$25—	
One Union or Family Scale, 240 lbs. with tin scoop.....	10 45

THIRTY NAMES WITH \$30—	
3000 Sections—one piece—any size.....	13 00

THIRTY-FIVE NAMES WITH \$35—	
Two Colonies Bees with good queens....	16 00

FORTY NAMES WITH \$40—	
5000 Sections—one piece—any size.....	20 00
One Portable Platform (19 x 14) Scale, 500 lbs. with wheels.....	18 00

FIFTY NAMES WITH \$50—	
Three Colonies Bees, good queens.....	24 00

SIXTY NAMES WITH \$60—	
One Farmers' Platform Scale, with wheels 1,200 lbs., steel bearings.....	26 00

SEVENTY-FIVE NAMES WITH \$75—	
50 Combination Hives, for comb honey..	31 50

ONE HUNDRED NAMES WITH \$100—	
50 Langstroth Hives.....	37 50

ONE HUNDRED AND FIFTY NAMES WITH \$150—	
One Combined Barnes' Foot Power Machine.....	60 00

TWO HUNDRED NAMES WITH \$200—	
10 Colonies Bees in Combination Hives, with good laying queens.....	80 00

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

PRICES CURRENT

BEESWAX

Beeton Aug. 29, 1888,

We pay 33c 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

**BEES
 BY THE POUND!**

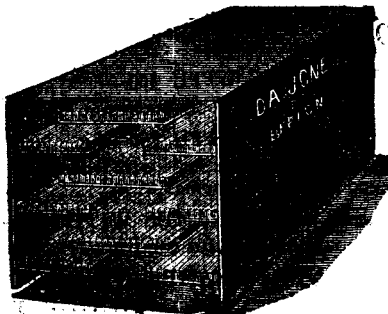
We have quite a large lot of Bees which we will dispose of by the pound, at very low rates, as follows:

6 lb Bees and 6 good mated Queens, \$10.00
 10 " " 10 " " " " 15.00
 This forms a good opportunity to build up weak colonies or to repopulate spare combs.

Orders booked and filled in rotation.

THE D. A. JONES CO., LD
 t.f. BEETON.

FEEDERS.



FOR PRICES SEE OUR CATALOGUE,
 WHICH WILL BE SENT FREE
 TO ANY ADDRESS.

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

**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 hogsheads, (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 $\frac{3}{4}$	6 45
4	9 $\frac{1}{2}$	6 75
5	9 $\frac{1}{2}$	6 95
4	9 $\frac{3}{4}$	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., d.
 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.
$\frac{5}{8}$ " & $\frac{1}{2}$ " 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., LD.

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.....		\$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 $\frac{1}{2}$, bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....		
2	Scribbling books, 200 pages.....	40	90
	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	
	Muchage, 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 files, harp shape.....	\$ 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 $\frac{1}{2}$ inch.....	95 2 25
4	School bag, medium size.....	90 2 10
	Tacks, cut, $\frac{3}{8}$ 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. pkg. for pasting		
	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, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, 9c.....	1 65	4 00
	Glue, LePage's liquid, with brush	1 65	
	Oilers, automatic.....	1	

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, $\frac{1}{2}$, $\frac{3}{4}$	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. S. 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-



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 & price list 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 95

Soldering outfit, consisting of soldering iron, scraper, bar of powdered resin..... 75-

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 Simplified Hive. The Falcon Chad 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.

250 ENVELOPES

—AND—

250 NOTE HEADS

FOR

\$1.

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

CANADIAN BEE JOURNAL OFFICE,
BEETON ONT.

Muth's Honey Extractor.

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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

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.

COMB FOUNDATION!

At hard pan prices.

WILL. ELLIS,
ST. DAVIDS, ONT.

BEEES 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 to 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

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 journal and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written p. 1st A. I. ROOT, Medina, Ohio

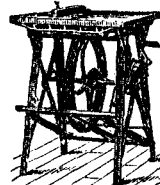
BEEES AND HONEY.

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

Read what J. J. PARENT, of Charlton, N. Y., says—"We out with one of your Combined Machines last winter 50 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of bee-hives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. & JOHN BARNES, 544 Ruby St., Rockford, Ill. 21



SECTIONS FOR THE MILLION.

We are turning out sections at the rate of 10,000 per day right along, in addition to our regular hive and supply trade, and we are prepared to furnish them in any regular size and style in large quantities at very low rates.

Our prices are as follows:—

1000	\$ 4 50
3000	13 00
5000	20 00
10,000	37 50

All orders entered as received, and shipped with promptness. Order early, to avoid the rush. These prices are spot cash.

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

9-11. BEETON, ONT.

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.

Fire 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.

BEEES.

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.

BEEES 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.