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601/A/5015  
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VOL. II. NO. 28.

1886

OCTOBER 8.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER



JOURNAL

APR 24 1974

THE FIRST \$

WEEKLY

IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY

JONES, MACPHERSON & CO.  
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. 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 of first number 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., 10 cents per year extra; and to 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.

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	3 MOS.	6 MOS.	12 MOS.
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Six inches.....	10.00	15.00	24.00
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Contract advertisements may be changed 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.....	1.75
" "Bee-Keeper's Guide," monthly.....	1.75
" "Texas Bee Journal".....	1.80
" "Rays of Light".....	1.35

## 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.

## ADVERTISEMENTS.

### WE CLUB

	Price Both.	Club
THE CANADIAN BEE JOURNAL and.....		
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 Honey Bee (clh).....	3 00	2 75
Heddon's Success in Bee Culture.....	1 50	1 40
"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

### "Foul Brood"

*Its Management and Cure.*

BY D. A. JONES. NOW READY.

This little pamphlet is presented to the Bee-keeping public with the hope that it may be the means of saving infected colonies from death by fire and otherwise. No expense is required to successfully treat the disease, other than the little time required for fasting.

Price, 10 Cents.

JONES, MACPHERSON & CO., Publishers Beeton, Ont.

## BEEES AND HONEY

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

M. RICHARDSON & SON.

Port Colborne, Ont

### THE BEEKEEPER'S LIBRARY.

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

BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25 paper, 1.00

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.

THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.

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.

FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.

BEEKEEPERS' HANDY BOOK, by Henry Alley. Price in cloth, \$1.50.

A. B. C. IN CARP CULTURE, by A. I. Root, in paper 50c.

SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in paper cover, 50 cents.

"A YEAR AMONG THE BEES," by Dr. C. C. Miller. Price, 75c.

A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W. F. Clarke. Price 25c

### FARMERS BUY THE CELEBRATED LARDINE MACHINE OIL,

—AS IN— EXCELS ALL OTHERS.

Manufactured solely by

McCOLL BROS., Toronto.

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**YES!** I take the Poultry Monthly and consider it the best magazine published, by a large majority. My fowls are now the best paying stock that I own. I have cleared over \$400 thus far, and business is just booming. I would advise every poultry keeper to subscribe for it without delay, as it is brim full of practical information.



**NO!** I did not subscribe for the Poultry Monthly, but intend to do so at once. I am told it is the best poultry journal published. I said I was too poor. My hens did not lay. They sickened and died. I had no poultry paper to tell me what to do, all because I wanted to save a dollar. I had to sell my place under mortgage. The "old woman" has gone back on me. My hair is getting thin, and the fact is I feel bad.

## Special Offer For One Dollar.

We want to place the MONTHLY in the hands of every one interested in poultry and pet stock, and will send the paper for the balance of this year free to all who subscribe now at \$1.00 for 1887 and mention the C. B. Journal.

Remember, the regular price of subscription is \$1.25 per annum, so do not fail to take advantage of this liberal offer.

Address,

**THE POULTRY MONTHLY.**

P. O. Box 215, Toronto, Can.

## SECTION CARTONS

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

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

	Per 500	Per 1000
Price for 1 lb.....	\$3 50	\$6 00
" 2 lb.....	4 50	8 00

Sample by mail 5c.

Labels for the Carton 1 lb., \$1.00 per M.; 2 lb., \$1.25 per M 14 oz. Glass Honey Jars \$4.00 per gross, also tin packages of all kinds.

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

Wholesale prices to dealers.

A. O. CRAWFORD,  
S. Weymouth, Mass

## Queen City Oil Works!

The Highest Honors and Gold Medal For Our  
**PEERLESS OIL,**  
Manufactured only by SAMUEL ROGERS & CO.  
Toronto, Ont

## Tools For Bee-Keepers

### HAMMERS.

We shall hereafter keep in stock a full line of tools suitable for bee-keepers. For ordinary use, where a person has only a few hives, etc., to nail, we have an iron hammer (with adze eye) which we can send you at 15cts.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c, 50c, 60c each.

Small hammers—steel face with adze eyes, just what are needed for frame nailing, etc., No. 55, 35c; No. 52, 50c.

### SCREW DRIVERS.

With good hardwood handles and of the best steel—nicely finished, round bits, in two kinds, No. 1, 5 inch bit 18c; No. 2, 6 inch bit, 20c.

### TWO-FOOT SQUARES.

In iron squares we have two kinds—the first of these is marked down to 3/4th of an inch, and is marked on one side only, the price is, each, 20c.

The other style is marked on both sides down to 1/2 of an inch—price, each, 35c.

We have a splendid line in steel squares which we can furnish you at \$1.35. They are well finished and are usually sold in hardware stores at \$1.75.

### TWO FOOT RULES.

A splendid line in rules we offer at, each, 18c.

Then we have a nice box-wood rule at, each, 25c.

### HAND SAWS.

Just at present we have but one line in these—26 inches long—A. & S. Perry's make—usually sold at 75 cents we offer them for 55c.

### PANEL SAWS.

These are what are often called small hand saws, and for the finer classes of the bee-keepers work are indispensable. We have started out with two lines in these. The 18 inch are good steel, (Shirley & Dietrich make) and can be sold by us at 50c.

The 20 inch are silver steel (same make) price \$1. These last are a beautiful saw for that money.

### PLANES.

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

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

All the above goods are sold at prices 20 to 25 per cent below the ordinary retail way, so that when ordering other goods you may just as well have any you may want as the cost of transportation will not be any greater. These will be included in the next revision of our price list.

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

BEETON, ONT.

## BARNES' FOOT-POWER MACHINERY.

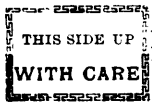


Read what J. I. PARENT, of CHARLTON, N. Y., says—We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-inch cap, 100 honey-racks, 500 broad frames, 2000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives etc., to make and we expect to do all with this saw. It will do all you say it will. Catalogue and Price-list Free. Address, W. F. & JOHN BARNES, No 472 Ruby St., Rockford, Ill.

OUR \* PAGE \* OF \* SPECIALTIES. \*  
THE D. A. JONES CO., LD., BEETON, ONT.

Shipping Labels.

These are for pasting on the tops of cases.  
Price, per 10..5c. by mail, 6c.  
" " 100.25 by mail, 27  
" " 1000.1 50 by mail, 1 60



Show Cards.

Size 12x18 in. each..05  
" " " per 10..40  
These are just the thing for hanging in the stores where your honey is placed for sale.



Lithographed Labels for Tins

We have lately reduced the prices of these very much. They are now

	Per 1000	Per 500	Per 100
5 pound labels.....	\$8 00	\$4 25	\$ 90
2½ " " ".....	5 00	2 75	65
1 " " ".....	3.50	2 00	50
½ " " ".....	1 75	1 15	30
¼ " " ".....	1 75	1 15	30
Labels for tops of tins.	90	55	15
Printing name and address, first 100.....			30
Each subsequent 100 up to 500.....			12
Printing name and address, per 500.....			75
" " " " " 1000.....			1 25

Shipping Labels for Comb Honey

**CAUTION.**

**COMB HONEY.**

Handle with Extra Care.  
Do not Move it on Hand Trucks.  
Do not Drop It. Load with the finger pointing to the  
Do not Dump it. Set it Down Easy.  
Haul only on Vehicles with Springs Bow, Locomotive or Horses

These are 7½ x 5½ inches, printed in red ink, in large bold faced type, on heavy paper and are invaluable to all shippers of comb honey. Keep them in stock and can furnish them by return mail. Prices : 25, 12c.; 50, 20c.; 100, 35c.; 500, \$1.50 ; 1000, \$2.75.

PRICES.

25, 12c.; 50, 20c.; 100, 35c.; 500, \$1.50 ; 1000, \$2.75.

Gem Jars

	Gross.	Half-gross
"Crown" brand 1 Pint	\$14 75	\$7 50
" " 1 Quart	15 75	8 00
" " ½ Gallon	19 00	9 75

Glass Packages



The new screw top, which is taking so well we can ship at an hour's notice. They hold exactly one pound of honey and make a splendid package for jams or jellies afterwards.

Prices per gross.....	\$10 00
" half ".....	5 25
" per dozen.....	90

60 lb. Tins for Extracted Honey

WE MAKE THEM.

For shipping honey in bulk, this package takes the lead. It is the most convenient size, is encased in wood so that it will stand any amount of handling. Has a large screw top so that granulated honey may be taken out as desired.

This is the package recommended by the commissioners to the Colonial exhibition. We have sufficient to store 100,000 lbs. of honey ready to ship by return freight or express.

SCALE OF PRICES.

Each.....	\$ 50
Per 10.....	4 80
" 25.....	11 25
" 100.....	42 00

The cases are made of planed lumber.

Honey Boxes For Sale.



We have in stock a large lot of Manilla Boxes, made to hold the 4¼x4¼ Sections, on which the Honey Comb Labels, A and B are used, (see illustration), and we can offer them at very reasonable rates. Each box has a nice tape handle, and the package is certainly a very beautiful one.

MANILLA BOXES. Per 1000. Per 100. Each		
4¼x4¼.....	\$14 00	\$1 50 2 cents.

Send 3 cent stamp for sample.

Dextrine.

This comes to you in the shape of a powder, and is used for the purpose of gumming honey-labels on wood and tin. Dissolve it in a little hot water, applying with a brush, and brush the gum over as well as under the label. Put up in packages of quarter half and one pound:

¼ pound.....	9c.	By mail 6c. extra
½ ".....	15	" " 12
1 ".....	25	" " 24

SUITABLE FOR THE SEASON.



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

VOL. II. No. 28.

BEETON, ONT., OCTOBER 6, 1886

WHOLE No 80

#### THE ACT OF INCORPORATION.

THE clauses relating to the incorporation of the Ontario Bee-Keepers' Association are as follows:

Sec. 65—(2) The Associations now existing and known as "The Bee-Keepers' Association of Ontario" and "The Ontario Creameries Association are hereby declared to be bodies corporate to comprise not less than fifty members each, and may each make by-laws and regulations for the Association's guidance and management subject to the provisions of the foregoing section.

66.—Each of such Associations so long as the number of its *bona fide* members is not less than fifty (each paying an annual subscription of not less than \$1.) and so long as it complies with the provisions of this Act, shall be entitled to receive from unappropriated moneys in the hands of the Treasurer of the Province a specified sum to be placed in the estimates and voted by the Legislature for each year; provided that the Secretary of each Association, shall, on or before the 1st day of September in each year, transmit to the Commissioner of Agriculture an affidavit, which may be sworn to before any Justice of the Peace, stating the number of members who have paid their subscriptions for the current year and the total amount of such subscriptions.

67.—Each of such associations shall hold an annual meeting at such time and place as may be determined upon; and each association shall at such annual meeting, elect a president, and a vice-president, and shall also elect one Director from each of the agricultural divisions included in such association's limits; and the officers and directors so elected shall appoint from among themselves, or otherwise, a Secretary and a Treasurer (or a Secretary-Treasurer); and each Association shall elect two auditors.

Then follow other sections relative to the internal workings of the Association. In Ontario there are thirteen agricultur-

tural divisions, so that there will hereafter be thirteen directors, instead of an executive committee as now.

From the *British Bee Journal*.

#### CANADIAN HONEY.

FROM the following communication from Mr. J. M. Hooker, it would appear that the freight of Canadian honey, which we have been looking forward to with so much expectancy for many weeks, has at last reached the Indian and Colonial Exhibition. It is a grand display of the honey-producing powers of the Canadian Dominion. It consists of forty tons of honey, chiefly of white clover. As the British bee-keepers acquired much knowledge as to marketing honey from the consignment of American honey that was exhibited at the Kilburn Show, it is quite possible that much addition to their experience may also be derived from the present magnificent display. It will be found in the Colonial Provisions Market on the left of the Indian Court, as one enters from the Subway. We hope all British bee-keepers will take an opportunity of visiting this exhibit, and that some means will be devised by the Committee of the British bee-keepers' Association of bringing together in union and confraternity Canadian and British bee-keepers.

About forty tons of Canadian honey have arrived at the Exhibition and are now being unpacked and will be all in order by the end of this week.

There are four gentlemen who are delegated by the Ontario Bee-keepers' Association to see to the whole thing, and right well they appear to be doing it. Our old friend Mr. D. A. Jones, of

Beeton, is one, Mr. Corneil, of Lindsay, Mr. McKnight, of Owen Sound, and Mr. Pettit, Belmont. By accident I met Mr. Jones, who introduced me to the others; they represent different parts of Ontario, living over a hundred miles one from the other. I spent part of last Thursday afternoon with them, seeing them unpack some of the comb honey, which you will be pleased to hear has come with few breakages. There are fifteen tons of comb honey of very good quality, principally clover honey; the packing was very cleverly done, and has well repaid them for the great care and skill bestowed upon it by the result. They were most courteous to me and gave me every information and look forward to making the acquaintance of some of our fraternity. All bee-keepers should make a point of seeing this grand exhibit.

JOHN M. HOOKER.

FOR THE CANADIAN BEE JOURNAL.

#### NORTHERN MICHIGAN HONEY.

**NOTICED** an assertion in your JOURNAL claiming that Canadian honey surpasses that of any other country in the world. I have tasted honey in various parts of Ontario, more particularly that part of the province extending from Beeton to Collingwood. Canadian honey, no doubt, is hard to excel, but I have tasted nothing in that country which, to my idea, is superior to that gathered in this latitude of Northern Michigan. The linden, clover, and the large fields of the wild red raspberry and Canadian thistle do not thrive well here, so we can not boast of any of the excellent honey usually obtained from this farmers' pest. Although Prof. Cook is right in his bee book respecting the value of our new northern country for the apiarist, still I will be always hereafter one of the first to discourage intending apiarists on the ground that the lower as well as the upper shelves of apiculture are well filled like other professions, and that there is no room on top for the big potatoes. The *Chicago Times* says that there is one doctor to every 600, and that many physicians are on the way to the poor house in consequence. Jas. McNamara, an able Ann Arbor graduate, claims that the legal profession suffers in like manner, and I am acquainted with some able lawyers in this northern country who are obliged to deal in lumber and cedar, in consequence of the superabundance of Blackstone's disciples. Is not the apicultural profession in like manner filled up? Twenty years ago honey sold itself. Now the wind ringing in our ears is that honey sells slowly. Why would it not when California can send us car loads of comb honey at 5 cents per lb., and Cuba promises us 1,000 lbs. of extracted

per hive? Add to this the fact that flowers bloom in profusion everywhere that markets are not so widely diversified and then say that the profession is not filled. Mahomet now must go to the mountain. Six years ago lumbermen were paid \$30 a month and board, but the large influx of European labor has caused the lumber barons to lower the wages to \$18. Is it not due to the influx of honey producers that comb honey sells lower than in former years? But we are told to educate the people to the uses of honey. Do they need to be educated regarding the merits of beef, mutton or eggs? No, one is a luxury and the other a necessity. Did not Mr. McKnight sell 2,000 lbs. of extracted honey in a short time? Yes. But canvassing is an art acquired only by practice, and the number of McKnights in our profession are few and far between.

G. J. MALONEY.

Cheboygan.

FOR THE CANADIAN BEE JOURNAL.

#### LAYING WORKERS.

**SEEING** in your JOURNAL the trouble friend Pringle and others are having of late with laying workers, I will give my plan of getting rid of them, and it never has failed with me. Between sunset and dark, go to your hive of laying workers, take out two combs, shake off all bees from them, proceed to some good strong colony that has had a laying queen for a month or more, with brood in all stages, take out two frames bees and brood and put in the frames brought from the laying workers; take the frames from the strong colony of bees and brood, careful not to take your queen along, and set them right into the laying worker's hive; close the hive, and in the morning your laying workers are gone and a few dead bees by the entrance show where; you are ready now to introduce your queen and the business is done.

Hurrah for the Doolittle nucleus box. Just the thing. Beats anything I ever tried, and the best way to introduce a valuable queen. Don't see how a man can fail if he follows directions. Bees stay well in new location. Also the Heddon plan of preventing after swarms works just right in my practice; have never failed. By the way, I intend using quite a number of Heddon hives next season. Will give you a short article on the way we manage foul brood in some future number. A very simple plan, but is a sure cure, in our locality. My teacher in bee-keeping has been through the mill four different times and always successful.

EDSON CARDNER.

Delphi, N.Y.

For the Canadian Bee Journal.

#### UNIVERSAL FEEDERS.

THE time to prepare bees for winter is at hand, and the provident bee-keeper will be sure that every colony has sufficient stores to live upon until new honey can be gathered next year. It will be found that many require considerable feeding to bring them up to the standard weight. Feeding such colonies used to cause me the utmost trouble; I tried nearly every kind of feeder that I heard of, but found none of them really suitable for rapid fall feeding; each had its faults. But while making some feeders last fall, a new idea presented itself to me. "Eureka!" I had discovered the very thing wanted; a feeder combining at once simplicity, cheapness, and usefulness, in the highest degree. I herewith send a description. While working one day, and revolving the feeding problem in my mind, I suddenly thought of—shavings. I seized my jack-plane, and in a few minutes I made enough clean, curly, basswood shavings to do for all my feeding last fall. I filled everything that would hold honey and syrup, then crammed the vessels loosely full of shavings, heaping some on top, and I had daisy feeders to put anywhere I wanted, either behind the loose division boards, or in empty upper stories, raising the quilt at one corner to let the bees pass up to the feeder. The rapidity with which these were emptied was something remarkable. A strong colony that I intended to winter outside, had about ten pounds of honey in their combs. I placed a deep box in the upper story, holding about thirty pounds of very thick syrup, and it was emptied in a single night. This was in cool October (the time, unfortunately, that I had to do about all my feeding last fall) and the box was a very bad shape for rapid upper-story feeding. I fed another weaker colony with a five pound honey-can (Jones') behind the division-board, emptying out the dry shavings and clinging bees every day, filling it fresh, and returning the shavings, until the bees had enough. Another colony I fed from a glass jar. I also fed from tin pails, cans, and dishes, glass cups and tumblers, and china cups and bowls; besides the regular and odd-sized wooden boxes. So the shavings got a fair trial. Of course, in feeding from anything except wood, I was very careful to have at least one long shaving hang over the edge of the vessel. In feeding I found that it made little difference whether honey or sugar syrup was used, though I prefer for fall feeding a mixture of half good honey and half very thick granulated sugar syrup. Therefore the advantages of the "Universal" feeder over all others, are briefly:—1st, simplicity;

2nd, cheapness. The shavings cost almost nothing, and other feeders, no matter what kind, have to hold the food anyway. Besides, the shavings take hardly any room, and therefore absorb very little of the food, and that little is quickly abstracted by the bees as they work downward. 3rd. Absolute safety. If the proper amount of shavings are used, not one bee need be lost, no matter how large a quantity is fed at once. Thus a full winter supply may be given at one time. 4th. Rapidity of feeding. The bees can get at the *whole surface* of the food and are thus enabled to take it up very rapidly. 5th. Universality. Though I prefer a standard size of wooden or tin feeder, holding if necessary about thirty pounds, yet I claim the name "Universal" because almost anything which will hold food may be used with the shavings, for either spring or fall feeding. I am now working out a new device for side feeding, *outside the hive*, (using shavings of course in the feeder) which, I think, will be "way ahead" of any invention in this line that I am aware of. If anyone has made this plan public before, I would like to know it.

I am too hurried at present to give a full report of this season's work, but expect this article to be in time, to be of material benefit to beekeepers this fall. I will add, however, that I wintered my bees last winter without loss, which I attribute to very populous colonies, and plenty of good stores. I wintered all of them in the cellar but one colony.

WM. JNO. HINCHEY.

Tamworth, September 16, '86.

For the Canadian Bee Journal.

#### THE HEDDON HIVE.

FRAMES DROPPING DOWN WHEN INVERTED.

SEE some are having trouble with the new Heddon hive on account of the frames dropping down when the hive is inverted, and therefore, I wish to ask your opinion of a way of holding the frames which I have devised. In making the hive I cut a groove on the inside of end of hive half way from top and bottom, lengthways of board five-sixteenths by five-sixteenths and after the hive is nailed up I make a hole in both ends of both sides to correspond exactly with the ends of grooves and on one side of hive. I make the holes oblong by boring two holes side by side. Now to hold the frame I take quarter-inch iron wire of the right length and bend one end back upon itself about one inch, and on the other end I cut a thread and fit a nut. Now insert the iron in the groove pushing it through from the side of hive having the ob-



long hole, having the end that is bent over come in same position usually occupied by the wooden thumb screw, the other end of rod being of suitable length to reach through the opposite side of hive about one inch. Before putting on the nut have a rubber washer about half-inch thick to put on first, and then an iron washer and last of all the nut, which may be a thumb nut, or, as I prefer, a common square nut, which can be tightened up very quickly by means of a socket wrench with handle like a common screw-driver handle. The advantage I claim for this arrangement is that the frames are not pressed between the two sides of the hive which tends to disjoin the hive whenever the frames expand by moisture or by undue pressure of the screw from the opposite side of the hive, but being held by drawing them towards one side of the hive you can see that no amount of pressure can affect the hive in the least, and as the frames are held by a yielding pressure they have a chance to expand and contract in wet and dry weather, and yet be tight all the time. I don't know how you look at it, but with me the settling of the frames when the hive is inverted is a serious objection. Just think of the trouble caused by the frames dropping down on a hot day and closing the entrance to the hive if only for a few minutes. I predict that nothing short of a yielding pressure can be relied upon for holding the frames as they will expand and contract in spite of us and one-fourth of an inch is enough to let them drop, and their expanding power is sufficient to disjoin any hive ever made. The inverting principle of this hive is one of its best points, and it ought to be so it could be relied upon either side up. I know very well that the rods cost a little more than the wooden thumb-screw but are they not enough better to pay for the extra cost.

The reason I have for making the iron pass through both sides of the hive instead of simply bending the end, is that the bees put propolis back of the end of rod so it cannot be pushed back when the nut is loosened, and then again, by making it this way it can be taken out any time without molesting the frames. I presume that a three-sixteenth rod would be sufficient. It certainly would have twice the power of the wooden thumb-screw.

D. S. HALL.

S. Cabot, Sept. 13th, 1886

For The Canadian Bee Journal.

#### EMPTY FRAMES VS. FOUNDATION.

**A**S there has been much said under the above heading, and as it is a question of great importance, I should be pleased if my experience would be of any value to other bee-keepers. Previous to the season of

1886 I had practiced using full sheets of foundation, but reading Mr. W. Z. Hutchinson's method of using empty frames, I concluded I would give it a thorough test, which I did this season, and can say I am more than pleased with the results. On the 24th of May I hived two swarms of equal strength, one on foundation and the other on empty frames, and at the end of ten days those on empty frames had their surplus arrangement containing twenty-eight sections filled and the combs in the brood-chamber over half completed, while those on foundation had not an ounce of honey in the sections and no more brood than the others; and not only did those on empty frames get the start when first hived, but they kept it all through the season, and I find they have given me over one-third more honey. These two colonies of which I write are but a fair sample of all I tried. I have had no trouble with drone comb, not having enough in any one hive to fill half of an L. frame. I use an eight frame Langstroth hive, with a surplus arrangement holding twenty-eight  $4\frac{1}{2} \times 4\frac{1}{2}$  sections, and use full sheets of foundation in the sections, putting them on at time of hiving. If working for extracted honey in a one-story hive, I think it would be to one's advantage to use foundation, unless a perforated division-board were used, and, even then, it might pay to use it, but in working for comb honey, no foundation for me, thanks.

A. W. BROWN.

Port Rowan, Sept. 22nd, 1886.

From the Mechanical World.

#### A BEE IN A TELEPHONE.

**T**HE experience of telegraph operators, inspectors, and linemen brings them into close acquaintance with all sorts and conditions of faults in connection with their work; the variety of these faults is wonderful, many stranger than fiction. One of the most curious in connection with telephony which we have ever known has just happened within the last few days at a place called Moss Bay. The linemen's attention was called to the circuit in question as hearing was difficult; on listening at the telephone he heard a "sort of booming which came on intermittently, very much resembling the distant roll of the tide, and which rendered speaking and transmission of work almost impracticable." Having satisfied himself by the usual methods that the instrument was right and the line free from induction, and that it was not picking up vibration, the conclusion was arrived at that the fault must be in the general office, Moss Bay. An examination of the telephone apparatus disclosed a novelty. A huge bee was

inside the telephone, and in trying to make good its escape, it had become fixed between the sounding board and the microphone, and it had hummed to the extent of interfering with the human organs of the circuit. How the bee came there the lineman cannot say, whether by accident or design he knows not, but the bee was the cause of the fault. In concluding his report the lineman candidly states: "I have met some very tedious and technical faults in various telephone apparatus, but never with a bee before."

Rural World.

#### HOW CAN WE PREVENT HONEY FROM CANDYING?

ONE of the chief causes that make extracted honey unsalable is the fact that it granulates or candies—as it is termed and thus its "good looks" are injured. This does not injure the honey at all; either in flavor or appearance, when again liquified by heat, unless too much heat is applied.

Granulation is a test of purity, as adulterated honey will not candy, while pure honey always will when exposed to light and air. Many experiments have been made to prevent granulation; only one of which has been found successful. Exposure to light will cause granulation, even when air is excluded, for this reason it is found that liquid honey must not be kept any length of time in glass vessels.

Tests made by myself as well as others show that when well ripened extracted honey is put up and sealed in tin cans in the same manner as corn, fruits of all kinds, meat, etc., in fact any kind of perishable articles of food, that it will preserve its liquid state for any length of time. I have found it keeps perfectly for three years, how much longer it will keep so I do not know, but see no reason why it should not indefinitely.

For the information of those who may not understand the modus operandi of canning fruits, etc., in tin, I will state that for honey, cans holding from one to three pounds are the best sizes; the honey when well ripened, and immediately after it has been extracted, should be put in these cans and covers soldered on; a small hole should be pierced in the top of each can with a medium sized brad awl, and the cans then put into boiling water till the honey is heated sufficiently to expel the air, then a drop of solder should be flowed on to the small hole and the job is done. The cans can then be labeled for market, or if designed for home use the label can be omitted.

It may seem strange that the above fact is of recent ascertaining, but the reason therefor is that experiments were devoted to glass al-

most entirely, and only recently was the granulative action of ight fully ascertained. As it is far easier to raise a crop of extracted than comb honey, the above fact in regard to keeping the same will probably be of interest and advantage to many who have become partially discouraged with bee-keeping.

J. E. POND.

Lewiston Journal.

#### THE MAINE BEE.

HOW TO GET THE MOST WORK AND HONEY OUT OF IT.

THE perverse Maine bee is not unlike his Western brother—or sister, whatever relation it claims. A bee is a bee, and the bee is going to act out its instincts wherever it may be found. But the locality in which the bee may be, may effect the status of his profitableness. While we must admit that the bee in the hands of the Western bee-keeper, may be expected to yield a better income than the bee of the East, on account of diversified facilities for product which makes the keeping of bees profitable, yet the facilities here for making bee-keeping profitable are much more abundant than Maine is credited with. The successful handling of bees involves so much of foresight, in sight and out of sight matters that it is not wonderful that the business is not fully learned in a season or that numerous persons never fully "get the run" of the bee to bring him into profitable business regulations.

#### SOME SUGGESTIONS.

It may not be a question with all bee-keepers who run an apiary for comb honey, whether the bees shall be allowed to swarm or not. With us the question is most comb honey without increase of stock. Another consideration is in what way can the most comb honey be procured? Can the question be best considered by saying give the bees all the room they can occupy by furnishing surplus receptacles in the way of sections? On these two points hinges, according to our view of the case, the successful management of bees.

It has been a question with us whether it was the better way to do as indicated above, endeavor to keep the bees from swarming, or if swarms issued return thus to the hive and endeavor to keep the whole family busy at home by occasionally extracting from the brood frames to give the queen room to lay herself out in, and then remove filled sections replacing them with empty ones, adding extra cases as often as seems necessary to the wants of the increasing num

bers of bees and so keep the whole force at work in the parent hive rather than to divide their forces by swarming.

The question then comes up, will one old stock thus managed store more honey, or in other words, be more profitable than to let an early swarm issue and then follow the same course with the two. Will as much or more honey be obtained from the two swarms and the increase of stock be about clean gone by this method?

#### THE ONE SWARM PLAN.

Our experience the two past seasons inclines us to believe that the following method is the preferable way to manage an apiary for comb honey. If extracted honey is disused it is plain that all the force of the bees should be kept at home in the old hive, and all needed room be given as fast as the bees are able to occupy it in early summer, by giving the colony frames of empty comb or foundation in which to store the honey. The limit is reached in thirty Langstroth frames, extracting once a week in the height of the honey flow.

But for comb honey the better way, as we have said, seems to be to get the bees into swarming condition, on seven frames, as early as possible,—in May if we can—give the first swarm on seven frames and add sections as the strength of the colony and flow of honey seems to warrant. The parent hive will probably have work well begun in a case of sections at time of swarming. These may as well be transferred to the new hive, as work will be suspended in them on issuance of the swarm. If queen cells are found capped, as very likely will be the case, in eight or nine days cut out or remove all but one of them to prevent after swarms. When the young queen begins to lay freely, clip her wings, as was done before with her mother. About this time another case of sections may be placed on the old hive and the one on the new swarm raised up and another placed beneath it. The supposition is, the two hives will give one half more honey than the whole force kept at work in one hive. The increase being a clear gain.

#### DIVIDING BEES.

Having run on bees on the non-swarming plan this year, our purpose was to, late in the season, divide these strong swarms and make two of them giving a fertile queen to the queenless part. Looking the matter over in the light of this summer's experiences, we think it better to divide these strong swarms immediately after the honey flow is over from the clover. Then comes a time of about three weeks when the best get out little more than enough stores to supply

the daily wants. Now we would divide and make new swarms as follows:—

The preparatory step, unless one had rather purchase queens, which may be done at small expense, procuring them of any of the queen breeders in the State. But it may be that one may wish to furnish his own queens. He can do it on Mr. Doolittle's plan which is as follows:—

#### CAGING QUEEN CELLS.

The preparatory step alluded to above, is to deprive a colony of their queen—taking the best strain of bees in the apiary—and when the queen cells which would be immediately formed, are about twelve days old, make your division of colonies, taking from the parent hive a little more than half of the brood, leaving the queen in the old hive. Let the new hives be at least eight feet from any other hives, so as to insure the safe return of the virgin queens on their return flights.

After the division has been made and the new swarm have been in the new home long enough to feel the need of a queen, which will be in the course of 24 hours—queen cells will usually be commenced within the time—make a wire cage on a conical pointed stick, having a point the size of a lead pencil. Make these long enough to receive a cork after a queen cell is inserted in the cage, as this is what the cages are for. Insert a caged queen cell in each new hive. The bees cannot get to the cell to tear it down, as they always gnaw into the cells from the side. In two or three days the queen will make her way out the natural way from the point of the cone, and be favorably secured by the colony. In 10 or 12 days these young queens will commence laying while the hatching brood will make a respectable swarm and but little more time be wasted than would be in furnishing fertile queens. Not later than the 15th of August will have arrived and the full flow of honey commencing about that time, it may reasonably be expected that such swarms will be well stocked with bees and winter stores, the requisite combs or frames of foundation having been furnished to them, by the end of October.

Now the bee-keepers of Maine are the wisest set of fellows on the footstool. We know we have set ourself up as a target for there fellows to fire at. To tell the plain truth that is just what we want. A better way and the best way to manage the perverse little bee is what we are after. Now you wiser old heads—and younger ones—in bee-lore, just point out the fallacies of our rearing and give the *Journal* readers a better plan if such you have.

From Kingston Whig.

### BEE-KEEPING IN FRONTENAC.

**W**ESTBROOK, Sept. 20.—(To the Editor): You gave us a whole column in last week's *Whig* on bee-keeping. This is a step in the right direction. This is a very good section of country for bees, and more bees should be kept. Tons of honey are annually going to waste for want of bees to gather it. The production of honey is becoming quite an important industry in our county. My best colony has given me 200 pounds of surplus honey this year, (125 pounds comb honey in sections and 75 pounds of extracted), and the bees have ample honey in their hives to carry them through the winter. This colony is of black bees. I have Italians, but no two colonies of Italians have given me as much honey as this one colony of blacks. My bees this year, on the whole, have averaged me about 100 pounds to the colony, two-thirds of which was comb honey in sections.

I have secured space from the secretary in the south wing of the palace this year to make an exhibit of honey, bee-hives, and other things connected with the bee business. I expect to be on hand every day of the fair, and will give the people all the information that I can on bee-keeping free. Those who wish to get posted in bee-keeping should take the weekly *CANADIAN BEE JOURNAL*. I expect to have some specimen copies at the fair to give to bee men. The paper only costs \$1 a year.

A word about the variety of bees. In the article on bee-keeping in last week's issue your correspondent advises farmers to buy Italians. He says they are more gentle than the lively hot-footed native American varieties. I never knew they were hot-footed before, but I know they are capable of warming a fellow up when they feel like it; but the heat does not come from their feet. I find no difficulty in handling the black bees. I use a good smoker, and that article is required with Italians. It is true that the Italians are quieter bees, but they are not as good a bee for comb honey as the native blacks; at least that is my experience. It is my opinion that the Italian bee will not give as good satisfaction in this section of country as the blacks. In some other sections of the country they may be better. It would be impossible, in this country, to keep them pure where there are so many black bees in the woods. Italians, crossed with the blacks, make good honey-gatherers, and I like them better than pure Italians.—A. BRIDGE.

P. S.—I forgot to say that the colony that gave me 200 pounds of honey never cast a swarm, and the surplus honey they gathered is worth \$25, putting it at wholesale prices.

A. B.

### ARTIFICIAL FORAGE FOR BEES.

**T**HE question which has been most frequently asked is, will it pay to cultivate any plant exclusively for honey on land which is of value for general field crops?

We have always advocated the affirmative of this question. We have advised the setting off basswood trees for general shade and in waste places. There are many points in favor of this tree as a shade tree. The bark is smooth, the top of the finest shape, the tree is a most rapid grower, and it is much less liable to have limbs broken or crotches split by hard winds than either the maple or elm. We have also urged the sowing of Alsike clover, as it not only affords an abundance of nectar, but at the same time is one of the finest plants for hay that we have ever tested. It has both a tap-root and fibrous roots, giving it the combined advantages of both the Red and White clover. Bokhara, or what is more commonly known as "Sweet clover," has been of great benefit to many. This may be sown to advantage on waste lands, especially along the banks of streams, or on stony or swampy places. It thrives best where the soil is damp.—*American Agriculturist for October.*

### QUERIES AND REPLIES.

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

#### WILL THE DRONES PRODUCED BY ITALIAN QUEENS AND BLACK DRONES BE PURE?

QUERY No. 109.—I would like a full expression of opinion and experience from our best informed apiarists in the country, through the question and answer department, of C. B. J., as to the quality of the drones that are produced by a pure Italian queen, that is, herself, mated to a black drone; that is, are they pure Italian drones, or are they like the queen and her progeny—hybrids, being likewise affected by the copulation act of the queen with a black drone? I am myself fully satisfied on this question, having tested it for one whole season two years ago, to my entire satisfaction; but I ask the question because it is a very mooted one, and but

little known of practically, for the interest of the general apiarian world. 2nd. Since in and in breeding is so condemned by all intelligent (?) apiarists, I desire to ask of those *only who have some experience practically* in that line, why it is condemned? and if in and in breeding of a select strain of bees for a number of generations, selecting in every instance the *best and choicest* specimens of each generation to breed from, does it not improve instead of degenerate the strain of bees so selected and bred up?

H. D. CUTTING, CLINTON, MICH.—If you have tested the matter fully to your entire satisfaction, why not give your views and then call for discussion?

DR. C. C. MILLER, MARENGO, ILL.—(1.) I don't know all about it, but would count the drones as good as any. (2.) I have never bred up a particular strain of bees.

G. M. DOOLITTLE, BORODINO, N. Y.—(1.) Drones from such a queen are near enough to pure for all practical purposes, *i. e.* they are not affected by the mismating to any such extent as the workers are, if at all. (2.) I prefer a direct cross for business.

DR. A. B. MASON, WAGON WORKS, O.—My opinion is that there is a *very slight* admixture in the progeny of the queen that has met a drone of another race. Could give reasons for such an opinion, but the reasons for opinions take up too much space for this department.

J. E. POND, FOXBORO, MASS.—This question opens up a big subject. Berlepsch in his discussion of the Dzierson theory asserts that the drone progeny of a queen is not affected by her fecundation. I do not agree with this assertion, and believe that a mismated queen is affected by the copulation to the extent that her drone progeny is contaminated. Analogy is on my side. The subject, however, cannot be fairly treated in the space that can be given in this department.

JAMES HEDDON, DOWAGIAC, MICH.—Most of my breeding being in the line of crossing the races, I am not proper authority, but the little observation I have had, would lead me to think that the purity of the drones from an impurely fertilized queen was *not* affected. (2.) I do not know what "in and in breeding" I have done with bees, has given me the best results, but, be it remembered, that I began with a cross between the best strains of Italians and Germans I

could find.

PROF. A. J. COOK, LANSING, MICH.—(1.) I think the drones are pure. I can see no possible way that the sperm cells in the spermatheca can affect the germ cells in ovaries. Again I have observed closely mating Italian queens with black drones and Syrian queens with Italian drones. Of many such queens there was no taint of blood noticed in drones. (2.) I think our best stock of all kinds has come from close in-breeding from choice parents. With care this is the way to win.

DR. DUNCAN, EMBRO, ONT.—Not having much experience in queen rearing, I am not positive whether they are pure or not, but as far as I have observed they are not; it is degenerating the purity of the Italians to a certain extent if you continue to raise queens from said queen and from her produce you will soon have the original black bees. (2.) In and in breeding don't degenerate a distinct race of bees or any other insect. I find the Holy Land bees don't degenerate half as easy as Italians, because they are a distinct race.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—If the theory that the mating of a queen has no effect on her drone progeny is correct, there have been seasons when I should have had none but pure Italian drones in my yard, and none except pure black drones within less than four miles away. Yet the progeny of a large per cent. of my young queens showed that they had met hybrid drones. While this test was not thorough enough to warrant one in flying in the face of positive assertions of scientific men, like Prof. Cook and others, yet it cannot help but raise some doubts about the correctness of the theory.

DR. J. C. THOM, STREETSVILLE, ONT.—The experiments of Dzierson have, I believe, finally settled the matter that the drones in this case would not be hybrids, but pure as the mother is. (2.) I think the reason why in and in breeding is condemned as regards bees is from analogy more than practical experience deterioration being the rule when this is followed in the animal kingdom. My own opinion is that the rule will not hold with bees; breeding from the best and choicest specimens, ought to give good results where consanguinity is recognized.

ALLEN PRINGLE, SELBY, ONT.—(1.) My opinion is that the drones are always faithful to the virgin mother both before and after impregnation, that is, they are of the same race or variety whatever that may be. (2.) As to why in and

in breeding is condemned, it is condemned first on physiological grounds, and second, on experience. The law of physical and mental degeneracy resulting from in and in breeding seems to obtain throughout the whole animal kingdom and even into the vegetable. Nature will, however, bear the in and in generally for a time—for a generation or two, then there must be an infusion of foreign blood.

G. W. DEMAREE, CHRISTIANBURG, KY.—In theory, such drones are pure in blood. But when it comes to practical test, they have not proven it in my apiary. In theory, I accept the doctrine that such drones are pure Italian in blood; in practice, I reject it. Is that inconsistent? Well, it will have to be so. (2.) I have no fears about in-bred bees. I can improve bees by the aid of selection, hence I answer the concluding part of your question, yes. The reason why many apiarists condemn "in-breeding" of bees, is because they have been educated to condemn in-breeding of farm stock, except where it is practiced to develop certain desirable points at the expense of some other qualities. In my opinion we cannot judge bees and some other lower animals, by what we see in a flock of sheep, or horned cattle. That most perfectly active, healthy, superb little fowl, the quail of the middle States, is a most persistent in and in-breeder. It is well known that each "covey" "pairs off" among themselves in the spring, and this in-breeding goes on and on as the generations pass away, without injury to the "birds." I believe the same is true of the bees. Hence improvement must be made by selection.

BY THE EDITOR.—(1.) We could never yet by any means detect any impurity in the drones. It may have a slight invisible influence upon them. (2.) If the selection is judicious and the breeding carefully managed especially in isolated localities, no doubt they can be improved.

#### AS TO SEPARATORS.

QUERY No. 110.—(1) Do you use separators? (2) What is the best width section to use with separators? (3) Without them? (4) Can you not get more honey without separators than with them? (5) Have you used sections with side passages, if so, how do you like them?—E. L.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—I raise too little comb honey to pretend to answer these questions.

DR. A. B. MASON, WAGON WORKS, O.—(1.) Used some this season, but shall use no more. (3.) Seven to the foot. (4.) Yes. (5.) No.

G. M. DOOLITTLE, BORODINO, N. Y.—(1.) Yes (2.) I use two inches. (3.) Have never tried such. (4.) No. (5.) Believe them an improvement.

PROF. A. J. COOK, LANSING, MICH.—(1.) I do. (2.) About one and three-quarters. Though wider if one wishes. (3.) Seven to the foot. (4.) Don't think so, I have not.

H. D. CUTTING, CLINTON, MICH.—(1.) Yes. (2.) One and seven-eighths and two inches. (3.) One and five-eighths to one and three-fourths provided you fill the sections with foundation. (4.) I think not. (5.) I have not.

DR. C. C. MILLER, MARENGO, ILL.—(1.) Yes (2-3) I don't know that the use or non-use of separators has anything to do with the size of sections. (4.) I think so. (5.) So far as I tried them I could discover no advantage.

DR. DUNCAN, EMBRO, ONT.—(1.) I never used any. (2.) Not certain I think one and five-eighths would be about the best. (3.) The same (4.) I don't think it makes any difference if there is a good flow of honey. (5.) I have not used any yet.

J. E. POND, FOXBORO, MASS.—(1.) Yes. (2.) One and three-fourths to one and seven-eighths. (3.) One and one-half to one and five-eighths. (4.) I do not find much difference if any. (5.) I have not. For the last three or four years I have devoted my time to extracted rather than surplus comb honey.

G. W. DEMAREE, CHRISTIANBURG, KY.—(1.) Not now, but I used them for a number of years in the past. (2.) Not less than one and three-fourths, one and seven-eighths is better economy (3.) I prefer one and three-fourths scant, but one and five-eighths is equally good. (4.) Yes, without a doubt. (5.) Have not tried them, for the reason that I believe that there is "too muchness" about them.

ALLEN PRINGLE, SELBY, ONT.—(1.) I get good section honey both with and without separators; with them in the new Heddon hive and without them in the Jones hive. (2.) Narrow width sections are best in either case. (4.) I cannot see that separators or no separators make much difference as to quantity of production. (5.) I use sections with side passages and am highly in favor of them.

DR. J. C. THOM, STREETSVILLE, ONT.— I don't as yet use separators. I believe you can save trouble, save expense and get more honey without them. If I use them in the future it will be between every two or three rows of sections for the purpose of getting better faces for crating. I have used sections with side passages for two seasons and like them. I expect to continue using them. (3.) One and one-half or one and five-eighths inches I find is a good width. What is the best? let him who knows declare.

JAS. HEDDON, DOWAGIAC, MICH.—We use separators, and with them, sections of such width that seven measure twelve inches, called "seven to the foot." Say one and three-fourths scant. Without separators, we use, and prefer, (after many test trials) the same, seven to the foot. The use of separators with properly constructed "supers," has no tendency to decrease the crop. We once thought so, but afterward discovered wherein our error rested. Have had no experience with side-opening sections. Do not feel any want that we think they can supply.

BY THE EDITOR.—Yes; we use separators on some of our sections and with some systems, with others we do not use them. There is less necessity for separators with double slotted sections, but if you wish to get an especially nice section honey use separators. (2) We think one and one-half or one and five-eighths inches is as wide as should be used in the interest of the producers. (3) We would use one and one-half or one and three-eighths wide with our present experience. (4) When separators are properly managed and your system of taking comb honey perfect, the use of separators would not lessen the number of pounds. (5) Yes; we have used them for years, we being the original inventors of them as far as we know, and have placed thousands of them in the market.

#### TORONTO EXHIBITION PRIZE LIST.

**F**OLLOWING is the official prize list as corrected and revised by the manager:

Display of extracted granulated honey, in glass, not less than 500 lbs.—Mrs. Henry Stennett, St. Marys.

Display of liquid extracted honey, not less than 1,000 lbs., of which not less than 500 lbs. must be in glass—The D. A. Jones Co.; A. S. Willows, Carlingford.

Display of comb honey in sections, not less than 500 lbs.—J. Alpaugh, St. Thomas; M.

Emigh, Holbrook; T. Goodyer, Woodstock.

Beeswax, not less than 10 lbs.—J. Alpaugh; Thos. Ramage, Richview; W. Ellis, St. Davids. Mode of marketing extracted honey—E. L. Goold & Co.; The D. A. Jones Co.

Mode of marketing comb honey—The D. A. Jones Co.; E. L. Goold & Co.

Comb foundation for brood chamber—Will Ellis, St. Davids; E. L. Goold & Co.

Comb foundation for sections—Will Ellis, St. Davids; The D. A. Jones Co.

Mode of securing the largest yield of comb honey—The D. A. Jones Co.; E. L. Goold & Co.

Mode of securing the largest yield of best extracted honey—E. L. Goold & Co.; The D. A. Jones Co.

Largest display of apiarian supplies—Silver Medal, The D. A. Jones Co.; Bronze Medal, E. L. Goold & Co.

Style and assortment of tin for retailing extracted honey—E. L. Goold & Co.

Style and assortment of glass for retailing extracted honey—Bronze Medal, Jacob Spence.

Section crate for top story and system of manipulating—The D. A. Jones Co.; E. L. Goold & Co.

Most practical and new invention for the apiarist—J. Alpaugh; The D. A. Jones Co.

Honey Plants, collection of—Mrs. A. Gilchrist, Guelph.

Assortment of fruit preserved in honey, not less than 5 bottles—T. Goodyer; Mrs. Gilchrist; J. Spence.

Cake or pastry made with honey—J. Spence; T. Goodyer; Mrs. Gilchrist.

Honey vinegar, not less than 1 quart—Mrs. Wilson; F. H. Buller; Mrs. Gilchrist.

Open only to bee-keepers who have not had over 25 colonies during the season of 1886.

10 lbs. of linden extracted granulated honey, in glass—Thos. Goodyer, Woodstock.

10 lbs. linden extracted liquid honey, in glass—Thos. Goodyer, Woodstock.

10 lbs. thistle extracted liquid honey, in glass—R. F. Holtermann, Brantford; T. Goodyer.

10 lbs. clover extracted liquid honey, in glass—T. Ramage, Richview; R. Holtermann; T. Goodyer.

10 lbs. comb honey in sections—T. Ramage; T. Goodyer.

#### TO THE BEE-KEEPERS OF THE PROVINCE OF QUEBEC.

**A**S you, no doubt, are all aware, the annual meeting of the North American Bee-Keepers' Society is close at hand and I, as Vice-President for the Province, would be much obliged if all and every bee-keeper in it would be good enough to send me as soon as possible, answers to the the following questions, viz:

How many colonies fall '85, spring '86, fall '86, lbs. comb and extracted honey, kind of summer.

From the answers sent I hope to be able to make a very good report.

H. F. HUNT.

# THE CANADIAN BEE JOURNAL

JONES, MACPHERSON, & Co.,

EDITORS AND PUBLISHERS,  
BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, OCTOBER 6, 1886.

## HONEY FOR SUPPLIES.

Till further notice we will pay ten cents per pound for a first-class article of extracted honey, other grades in proportion. See changes in quotations in the honey market.

## PRINTING.

Our facilities for the execution of all classes of artistic printing are unequalled. Billheads, letterheads, envelopes or business cards sent by return mail. Estimates for pamphlets and book work on application.

The publishers of the *American Agriculturist* will forward a copy free to every person who has been a subscriber to the *American Agriculturist*, but is not now one (provided they send their name on a postal card), to the end that they may see the great improvements that have been made in this periodical.

Our small leaflets, "Honey, some reasons why it should be eaten" are having an immense run this season. Nearly all who used them last year are repeating their orders. For building up a home market they are invaluable and what bee-keeper is there who does not wish to dispose of his produce in his own section of country?

## BEE PASTURAGE.

We have received from the author Mr. Henry Dobbie, a copy of his work on "Bee Pasturage," giving practical instructions on the cultivation and propagation of the best honey and pollen producing plants. The value of the book is much enhanced by a tabular statement showing the relative honey and pollen value of each plant, together with the length of time it remains in bloom. The white and alsike clover, heather lime (basswood) and melilotus yield 100 per cent of nectar, whilst broom, holly, sunflower and willow are equally valuable for pollen. Progressive bee-keepers will value this small book as filling "a long felt want" and a careful perusal of its pages will amply repay the apiarist. Jarrold & Sons, 3 Paternoster buildings, London, Eng.,

are the publishers, and the price of the volume is one shilling.

## SPECIAL NOTICES.

We will send Vol. I. of the C. B. J. nice y bound in cloth to new subscribers for \$1.25 or clubbed with current Volume for \$2.00.

## INCREASE YOUR HONEY SALES.

By a judicious distribution of our leaflets, "Honey, some reasons why it should be eaten" you can sell every pound of honey you have. Customers who used them last season speak very highly of them. Prices with name and address, per 250, \$1.25; 500, \$2; 1000, \$3.25. Send for samples.

## REDUCED PRICE OF SECTIONS.

We have a good many thousand sections cut and stacked up in boxes ready for shipment, and if there are any who feel like laying in a good lot of sections for the season of 1887, we will give them a specially low quotation, so that after counting the interest on the money for eight or ten months, there will still be a good margin of profit in their favor. Of course these quotations will only apply to regular stock, unless where orders are for over 10,000 in odd sizes. Regular sizes are  $3\frac{1}{2} \times 4\frac{1}{2}$  and  $4\frac{1}{2} \times 4\frac{1}{2}$  and in widths of either  $1\frac{1}{2}$  or  $1\frac{3}{8}$  inches. The prices we quote are, per 1,000, \$4.25; 10,000 or over, \$3.75. By the way, we didn't mention that these prices are for one-piece Linden (formerly Basswood) V groove sections. Dovetailed and spruce sections, we will furnish at 10% off price-list rates.

## CONVENTION NOTICES.

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

THE EASTERN TOWNSHIPS BEE-KEEPERS' ASSOCIATION will hold its second annual meeting at the Queen's Hotel, Cowansville, Missisquoi Co., Oct. 19th, at 10 o'clock, a.m. It is to be hoped that all bee-keepers in the townships will unite in making this a large and representative meeting. Bee-keeping throughout the eastern townships is rapidly increasing, and an association, embracing all bee-keepers, cannot help but result in great mutual advancement. Bear in mind that we have secured a grant of \$100 from the Provincial Government, and with a large and active membership the success of the association is secured. FRANK W. JONES, Chairman Ex-Com. E. T. B. A.



THE NORTH AMERICAN BEE-KEEPERS' SOCIETY will hold its seventeenth annual Convention at Indianapolis, Ind., Oct. 12, 13 and 14, 1886. The meeting will be held in Pfafflins Music Hall, over 82 and 84 North Pennsylvania Street, one of the most pleasantly situated halls in the city, with good ventilation and plenty of light. The society headquarters will be at the Occidental Hotel, corner of Washington and Ills. Sts., near the heart of the city and but a short distance from the hall. The regular rate of this hotel is \$3 per day, special rates to those in attendance at the convention will be \$1.50 per day. The North Western Bee-Keepers' Society, the Indiana State, the Eastern Indiana, with various county and joint societies, will meet in union with the N. A., making it one of the most formidable meetings of bee-keepers ever held in the country. Everything possible will be done to make this meeting a pleasant and interesting one. An earnest cordial invitation is extended to all. FRANK L. DOUGHERTY, Secretary.

**HONEY MARKETS.**

**BEETON.**

For extracted honey, put up in our style 60 lb. tins, (packages allowed 30c.) we offer, in supplies of any kind:

Bright, clear honey in Linden, clover or Cts distinct flavors..... per lb. 10  
 Bright, clear honey in mixed flavor.. " 09½  
 Amber colored " ..... " 09

These prices are for honey delivered in Beeton, freight paid.

**CHICAGO.**

Since my last quotation honey has come forward very freely and from information now at hand it would appear that the Middle States will have all the Honey produced at home this season that can be marketed or consumed, and that we shall not be apt to draw upon the Eastern States as we did last year. Best grades of white comb to-day at thirteen cents, Extracted six cents and beeswax 25 cents.

R. A. BURNETT.

Chicago.

**CINCINNATI.**

The market for honey is very tame. Demand from manufacturers is very slow and there is only a fair trade in new comb honey and extracted in square glass jars. Extracted honey brings 3½c. to 7c. a lb. on arrival. Comb honey 12c. to 14c. for good to choice in the jobbing way. Prices are low for all produce and no speculative feeling is noticed anywhere. Unless better prices are realised, for other produce, prices of honey are not likely to advance. Beeswax is in good demand and arrivals are fair. We pay 20 cts. a pound for good yellow.

CHAS. F. MUTH & SON.

**BOSTON.**

Honey is selling very well but prices are very low, and we are often obliged to shade our

prices in order to make rates, We quote 1 lb. comb, 14 to 16 cents. 2 lb. comb, 12 to 14 cents, Extracted, 6 to 8 cents.

BLAKE & RIPLEY.

**NEW YORK.**

The market for new crop comb honey is just opening. We note an improvement in sales and prices. Most of the comb honey that has arrived is badly colored, which makes it second grade, and we suppose is due to a poor season and long finishing. We quote 1886 crop as follows:— Fancy white comb, 1 lb. sections, clean and neat packages, 15 to 16c.; fancy white comb, 2 lb. sections, clean and neat packages, 12 to 13c.; fair to good, 1 and 2 lb. sections, clean and neat packages, 10 to 14c.; fancy buckwheat, 1 & 2 lb. sections, clean and neat packages, 9 to 12c.; extracted white clover, kegs or small barrels, 6½ to 7c.; extracted California honey, 60 lb. cans, 5 to 5½c.; California Comb, 10 to 11c.; beeswax, 22 to 24c.

MCCAUL & HILDRETH BROS

**PRICES CURRENT**

**BEESWAX**

We pay 30c 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**

Beeton, October 6th, 1886  
 Brood Foundation, cut to "Jones' size" per pound....47c  
 " " over 50 lbs. " " ....45c  
 " " cut to other sizes " " ....48c  
 " " over 50 lbs. " " ....46c  
 Section " in sheets per pound.....58c  
 Section Foundation cut to fit 3½x4½ and 4½x4½, per lb.60c  
 Brood Foundation, starters, being wide enough for Frames but only, three to ten inches deep...43c

**EXCHANGE AND MART.**

**A BARGAIN.**—For sale at \$5.25 thirty colonies of bees, Jones hive, seven frame comb, originated in Beeton apiaries. M. HAMILTON, Williamsville, Ont. 24-27

**FOR SALE** or I will exchange for bees some first-class White or Brown Leghorns, Black Javas or W. C. B. Polish, all bred from prize winning stock. Address, H. GODDARD, Box 128, Listowel, Ont. 28-29

**120 ACRES SELECTED.**

High, gray hummock and pine lands, not subject to over-flow, situated on the

**GULF COAST RIDGE,**

In Tropical Florida, 80° 50' lon. west of Gr. and 26° 35' north latitude, 16 miles south east of Fort Meyers, 2½ miles distant of Ostego Bay, crossed in its whole length by the lovely Estero Creek, for the culture of Oranges, Mangoes, Grapes, Pine Apples, Bananas, Cocoa-nuts, Datepalms, ect., and winter vegetables. Climate grand and delightful. Health unsurpassed. Water good and healthful. \$25 per acre, in lots to suit purchaser. This offer holds good till 1st of Dec. next, after that prices advance.

50 colonies Syro-Italian bees for sale. Cause of sale: Failing eyesight. Apply to, GUSTAVE DAMKOHLER, Punta Rassa, Monroe Co., Florida.

# PREMIUM :: LIST !

PRESENTED FOR NEW SUBSCRIBERS.

WE WISH TO LARGELY INCREASE THE PRESENT LIST OF THE

## ==== CANADIAN BEE JOURNAL ====

before the new year, and to do this we make offers of the most liberal nature :

### ONE SUBSCRIPTION.

- To all new subscribers who send their names at once we will forward a copy of the little book, "Foul Brood, Its Management and Cure," for \$1.00—value.....\$1 10  
 One subscription to the JOURNAL with \$1.15 will entitle you to a copy of the new book, "A Bird's Eye View of Bee-Keeping," by Wm. F. Clarke, Guelph,—value 25c—*free*.  
 One subscription to the JOURNAL with \$1.25 will entitle you to a virgin queen (value 50c) during the season of 1887—*free*.

### TWO SUBSCRIPTIONS.

- Two new subscribers with \$2 will entitle the sender to any one of the premiums below, *free*:  
 One copy of Clarke's "Bird's Eye View of Bee-Keeping."  
 A virgin queen during season of 1887—value 50c.  
 5 Show Cards (two colors Honey for Sale.)  
 One Winter Feeder (made up).

### THREE SUBSCRIPTIONS.

- Three new subscribers with \$3 will entitle the sender to any one of the premiums below, *free*:  
 One copy of Heddon's "Success in Bee Culture"—value ..... 50  
 One \$ Queen during the season of 1887.  
 One Canadian Feeder (made up).

### FOUR SUBSCRIPTIONS.

- Four new subscribers with \$4 will entitle the sender to his own JOURNAL for one year, and a copy of "A Bird's Eye View" both *free*, or four names and \$4 will entitle the sender to any of the premiums below, *free*:  
 One Queen, worth \$1.50, during the season of 1887.  
 One copy of Dr. C. C. Miller's new book "A Year Among the Bees," value..... 75

### FIVE SUBSCRIPTIONS.

- Five new names with \$5 entitles the sender to any of the following premiums *free* :  
 One copy Root's A.B.C. (in paper) postpaid, value..... 1 07  
 One Honey Knife, by mail, postpaid, value..... 1 08

### SIX SUBSCRIPTIONS.

- Six new names with \$6 will give you *free* any one of the following:  
 Root's A.B.C. in Bee Culture (cloth) value..... 1 25  
 Cook's "Manual of the Apiary" (cloth) value..... 1 25  
 Honey Knife, ebony-polished handle, value, postpaid..... 1 33  
 One No. 3 Smoker, fancy finish..... 1 30  
 Bound Vol. I, CANADIAN BEE JOURNAL..... 1 25  
 One Queen, (season of 1887)..... 2 00

### TEN SUBSCRIPTIONS.

- Ten new names with \$10 will give you *free* any of the following.  
 One force pump (per express) value..... 2 00  
 One Queen Nursery 20 cages (per express)..... 2 50  
 One Queen (season of 1887) selected, tested..... 3 00

### FIFTEEN SUBSCRIPTIONS.

- Fifteen new names with \$15 will give you *free*, One No. 1, Wax Extractor, value..... 3 50  
 One Heddon Hive, painted and complete, value..... 3 25  
 1000 Leaflets, "Honey, Some Reasons Why It Should Be Eaten," value..... 3 25

### TWENTY SUBSCRIBERS.

- Twenty new names with \$20 will procure for you *free*.  
 Any style of Lithograph Labels you may desire to the value of..... 5 00  
 Two queens, selected tested (season of 1887) at \$3 each..... 6 00

### TWENTY-FIVE SUBSCRIPTIONS.

- Twenty-five new names with \$25 will give you *free*, One Honey Extractor (Jones Patent).... 8 00  
 Or one Set Honey Scales (240 lb) with tin scoop, stamped..... 7 10

Address all your communications to

JONES, MACPHERSON & CO., Beeton, Ontario.

# THE Winter Problem Solved!

After twelve years of experimenting I have succeeded in solving this great problem of wintering bees without loss. I have also overcome Spring Dwindling so perfectly that with me it is a thing of the past. Four years ago I built my first underground clamp and since that time I have each year wintered a large number of colonies without the loss of one. It is positively the only perfect system of wintering and springing bees. See Canadian Bee Journal, Nov. 18, 1885, page 531.)

## I Am Making Models of this Clamp in Cardboard

with three hives packed in it as I prepare them for winter, with printed directions for using, for the

*Small Sum of One Dollar.*

*The Model Is so Complete and Simple that a child can understand it.*

**MODELS SENT BY MAIL.**

**SAMUEL BRAY,**

ALLISTON P.O.,

ONT.



### Flat Bottom Comb Foundation.

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

**J. VANDEUSEN & SONS.**

SOLE MANUFACTURERS,

BAROUD BROOK, MONT. CO N. Y.

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

J. J. MARTIN & CO.,

North Manchester, Indiana.

### Feeders.

The demand for feeders seems to be growing. We offer three different styles suitable for different seasons :

#### ENTRANCE FEEDERS.

Double the usual size, each..... 15c  
" " per 100.....\$12 50c

#### THE CANADIAN FEEDER.



This is for fall feeding and enables you to feed 15 to 20 lbs. at once with no danger of robbing.

Made up, each.....\$ 60  
" " per 25..... 12 50  
In flat, each..... 40  
" " per 25..... 8 75  
" " " 100..... 30 00

THE D. A. JONES CO.

# A BIRD'S EYE VIEW OF BEE KEEPING

—BY—

## REV. WM. F. CLARKE

IS NOW READY.

*The Price is 25c., Five for \$1.00.*

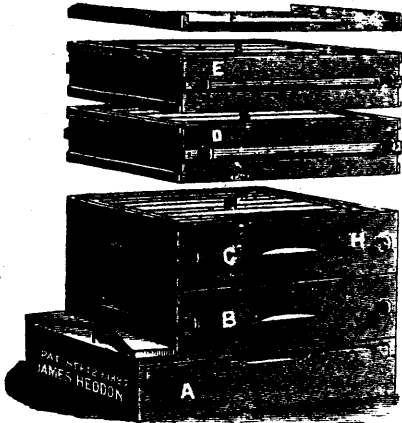
Special Terms to the Trade. It is Interesting, Readable and Practical

**JONES, MACPHERSON & Co.,**

PUBLISHERS, BEETON, ONTARIO.

## THE NEW HEDDON HIVE,

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



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

### A SAMPLE HIVE

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

### HIVES READY TO NAIL.

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

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

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

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

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

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

### DISCOUNTS IN QUANTITIES.

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

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

BEETON ONT.

Beeton Printing & Publishing Co.,

FINE BOOK, JOB, & LABEL PRINTING.

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

F. H. MACPHERSON,

3-t.1. Manager, Beeton, Ont

FRIENDS If you are in any way interested in

## BEEES AND HONEY.

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

## BEE-KEEPER'S GUIDE,

OR

## MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876,

The fourteenth thousand just out. 10th thousand sold in just four months. More than 50 pages and more than 50 costly illustrations were added in the 8th. It has been thoroughly revised and contains the very best in respect to Bee-keeping.

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

A. J. Cook, Author and Publisher

State Agricultural College Michigan

## 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 to,

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues Cincinnati, O.

Sept. 1st, 1886.

Jan. 1st, 1887.

## REDUCTION

for balance of 1886. From Sept. 1st, 1886, to Jan. 1st, 1887, will make prices on **SECTIONS \$4.00 Per 1000**, and larger quantities proportionately less. **FOUNDATION, 35cts Per lb.** for brood and **45cts for SECTIONS**. Equal, if not **SUPERIOR**, to any other make. **Seven and one half (7½) per cent reduction** on all other goods in Price List.

Dealers, wanting **LARGE QUANTITIES**, to stock up for the season of 1887, will be given special prices on application.

**Remember** my goods are noted the world over for fine quality and workmanship. Try me and be convinced.

**W. T. FALCONER,**

**Jamestown, N.Y.**

Manufacturer and dealer in full line **Apianian Supplies.**

## ITALIAN QUEENS 1886

For Italian Bees and Queens in their purity for beauty and working qualities they are equal to any in the U. S. or Canada. Comb foundation 40c per lb. Untested queens \$1 each, \$11 per dozen; tested \$3.50 each. Queens reared in full colonies from egg; safe arrival and satisfaction guaranteed. Send for circular.

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

ESTABLISHED 1855.

## BEE SWAX HEADQUARTERS

We have constantly on hand a large stock of Domestic and Imported Beeswax in original shape, which we offer to manufacturers of Comb Foundation at lowest prices. We guarantee all our beeswax absolutely pure. Write to us for prices. Address,

**R. BOKERMAN & WILL,**  
Beeswax Bleachers and Refiners. **Syracuse, N.Y.**

## DADANTS FOUNDATION

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

**T. G. NEWMAN & SON,** Chicago, Ill.,  
**C. F. MUTH,** Cincinnati, O.,  
**JAMES HEDDON,** Dowagiac, Mich.,  
**F. L. DOUGHERTY,** Indianapolis, Ind.,  
**CHAS. H. GREEN,** Berlin, Wis.,  
**CHAS. HERTEL, Jr.,** Freeburg, Ill.,  
**E. L. ARMSTRONG,** Jerseyville, Ill.,  
**ARTHUR TODD,** 1020 Germantown Ave., Philadelphia  
**E. KRETCHMER,** Coburg, Iowa,  
**E. F. SMITH,** Smyrna, N. Y.,  
**C. F. DALE,** Mortonville, Ky.,  
**EZRA BAER,** Dixon, Lee Co., Ill.,  
**CLARK JOHNSON & SON,** Covington, Ky.  
**J. F. MASON & SONS,** Mechanic Falls, Me.  
**J. A. HUMASON,** Vienna, O.  
**C. A. GRAYES,** Birmingham, O.

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

### COMPLIMENTARY

and **UNSOLICITED TESTIMONIALS** from as many bee-keepers in 1886. We **Guarantee every inch of our Foundation equal to sample in every respect.**

**CHAS. DADANT & SON,**  
HAMILTON Hancock Co., Lt.

1886. **ITALIAN QUEENS.** 1886.

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

**J. T. WILSON,**  
Nicholasville, Ky.

## THE YUCCA BRUSH!!

BY MAIL SIX CENTS EACH.

I also manufacture a first-class article of Comb Foundation, and keep in Stock Sections, Honey Knives, Cane Smokers, etc. Write for particulars.

**W. W. BLISS,**  
Duarte, Cal

## ITALIAN AND CARNIOLAN QUEENS

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

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Ten and over..... 5 00  
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The combs are nice and straight and each one measures about one square foot. The queens are, in most instances suitable to breed from—all will produce good honey gathering progeny. Nearly all of them are last year's tested queens.

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