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VOL. II, NO. 31.

1886

OCTOBER 27

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

APR 25 1886

THE FIRST \$

WEEKLY

IN THE WORLD

BIBLIOTHEQUE NATIONALE

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY

JONES, MACPHERSON & CO
BEETON ONT.

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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 us a number of the C. B. J. Binder.

Send postal card for sample of *Golden 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, Express, 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 as good naturally, but if you cannot, then write to us any way. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

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

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 a countries not in the Postal Union, \$1.00.

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"American Apiculturist" monthly.....	1.75
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"Bee-Keeper's Guide," monthly.....	1.75
"Texas Bee Journal".....	1.80
"Rays of Light".....	1.85

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
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Langstroth on the Honey Bee (cloth).....	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 Apian 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

BEEKEEPER'S GUIDE OR MANUAL OF THE APHARY, by Prof. A. J. Cook. Price, in cloth, \$1.25 paper, 2.00.

A. B. C. IN BEE CULTURE, by A. I. Root. Price, cloth, \$1.50, paper, \$1.00.

QUINBY'S NEW BEEKEEPING, by L. C. Root. Price, in cloth, \$1.75.

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, \$4.00; per 250, \$1.75; per 100, 80c. With plates 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, in cloth, 10c, per wise.

BEEKEEPER'S HANDY BOOK, by J. H. Alley. Price in cloth, \$1.40.

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

SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price, 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.

FABRICATED BY THE CELEBRATED
LARDINE MACHINE OIL,
—AS IT—
EXCELS ALL OTHERS.

MCCOLL BROS., Toronto.

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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 one 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.



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, and 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 \$5.00 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

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.

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 GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER."

VOL. II. No. 31. BEETON, ONT., OCTOBER 27, 1886 WHOLE No 83

CANADA AT THE COLONIAL.

THE last received advanced sheet of the *Canadian Gazette* (Oct. 7th) gives us more of the solid facts which bee-keepers are anxious to receive than anything we have yet had ; if, as we presume they are, the statements are facts, Canadians have reason to congratulate themselves upon the markets which they have opened for future production. We expect soon to receive from the Commissioners a full report of the prospects so far as they can glean them. The article from the *Gazette* is as follows :

"The Ontario Bee-keepers' Association seems to be fast realising the object it had in view in bringing its interesting exhibit to the Canadian section of the exhibition. The forty tons of honey contributed by between twenty and thirty bee-keepers of Ontario arrived a week or two since in charge of a delegation from the Association, and since its arrangement in a large building in the South Promenade it has not failed to attract great and increasing attention. There would seem a good prospect of introducing the honeys of Ontario direct to the market here. No less than four English houses have made requests to be allowed to quote wholesale prices for the whole exhibit, and take it into their own hands at once. These offers have been wisely refused. "Our object," say the delegates, "besides showing the natural productions of Ontario, is to distribute our honeys at reasonable prices among the British public, and create a demand for it while keeping a supply at the Exhibition for display." The Association is, of course, desirous of opening up a wholesale market here, and should any be left at the close of the Exhibition will be ready to dispose of it in this way, but the present exhibit is made with

the twofold object named, and fortunately the delegates will not allow a desire for immediate gain to make them forgetful of the future benefits to be derived from the display. There are four English houses now in communication with them, who are either retailers themselves, or who directly supply retailers, and they say that if they can be sure of getting honey regularly each year from Ontario, they think there is a margin in the prices quoted. So far as appearance goes, the exhibition public say it is far ahead of English honey, being whiter and clearer. Some of the flavours are also new to the English taste, for in Ontario there are three distinct crops of honey—the clover, the linden, and the thistle honey. It is happily found that the carrying companies are very desirous of affording every facility for safe shipments ; while the delegates are now satisfied that the honeycomb can be with care shipped to this market. That has always been a somewhat doubtful question previously, the comb being so easily broken. So far as the experience at the Exhibition goes, the liquid honey seems, however, to meet with most favour with the British public ; and this is just as was wished, for as much as two pounds' weight of liquid honey can be produced to only one of comb, while the combs can be replaced into the hive, and thus save the bee time and labour in preliminaries. The retail sales at the Exhibition quite come up to the anticipation formed, averaging some 20 lbs. per day. The honey with which the Canadian varieties have to compete in the English market are those from Chili and from California. The latter has not, it seems, a very good reputation here, while the Chili honey is known to be generally badly gathered. In the matter of price, too, Canadians have every reason to anticipate a fair share of the market. The prices now being quoted by the delegates, which are the figures at which Ontario bee-keepers can afford to sell, are in general somewhat lower than the prices of foreign honeys in the English market. As to English honey, some say that the Canadian varieties average the same price ; others say that they are higher in price. It is not, however, proposed to kill the sale of Canadian honey by disposing of

it at prices not fairly profitable to growers. A fair medium price will, it is believed, give the honey a good permanent place in this market, and pay best all round in the long run. Every effort is also being made to sell in such packages as will suit the needs of small and large purchasers. The crates received from Canada have been unpacked, and the honey placed in smaller boxes, and in bottles of all sizes. Samples of the various honeys are also offered gratis when suitable occasion offers, so that, as a delegate puts it, "every man, woman, and child may say that they have tasted Canadian honey." The cultivation of the bee is rapidly extending in Ontario. Farmers have lately, it seems, entered largely into the raising of clover seed for exportation to this country. The clover provides excellent material for the bees to work upon, and the bee-keeping farmer may reap a two-fold benefit, for not only will his yield of honey become a fairly profitable one, but even the quantity of his seed will be increased. The bees carry the pollen and make the fertilisation of the clover blossom a greater certainty. And no nutriment is, it is claimed, in this way lost to the clover itself, for the flower will reproduce the nectarine almost immediately."

FOR THE CANADIAN BEE JOURNAL.

HONEY AND APIARIAN SUPPLIES.

SOME HINTS TO THE PROVINCIAL AND WESTERN FAIR DIRECTORS.

THE exhibitions, fairs and shows are again about over for another season, and those interested cannot fail to see that the department for honey and apiarian supplies in our leading shows is better represented this year than formerly. The Toronto Industrial Exhibition has been the means of doing much of this. When Mr. D. A. Jones, some years ago, first prompted the directors to make such a new departure, they warmly responded to his efforts and the idea has developed until to-day Toronto has a separate building for honey and apiarian supplies: the judges appointed are men who understand their work and are appointed solely for judging this class. Not so, however, at the Provincial and Western Fairs. At the Provincial this year the judges were entirely incompetent to do their work. I heard such remarks pass their lips as "honey and wax extractors—why is that not all the same thing?" "Bee-hives! Yes, yes. Every one has the bee-hive, but they are all upon the same principle." I believe these judges had no other class to judge, and it is a piece of presumption for such to accept a position which they frankly admit they are incompetent to fill. At the Western Fair, the judges had a great many other things to judge and in some classes they were, doubtless, well competent to decide; under these circumstances we can hardly censure them for looking

upon the apiarian department as of less importance compared with their speciality, cheese, butter, etc. The result was that only one practical bee-keeper was amongst them. My object here is not to censure judges or condemn decisions, but to point out that the day has passed where anything but a thoroughly practical prize list with competent judges in this department can satisfy. These exhibitions to be of use must be in advance of the general public and an educator, not several years behind the spirit of the times. Judging cheese, butter, bread, and many other products and strained honey or box comb honey may have gone together very well at one time, but not now when strained and box honey are replaced by extracted and section honey, and where modern apiarian appliances are exhibited. The country fairs are often even worse. I have seen broken pieces of comb in a pan take the prize from beautiful sections. There is no desire to manifest dis-satisfaction with decisions given at the fairs. I make special reference to my desire being to have matters to which I refer remedied to the satisfaction of all parties, those having prizes awarded justly or not, are dis-satisfied. The exhibition loses interest when all might be remedied. There are many able and disinterested bee-keepers who would act as judges if called on. If the Western Fair committee would do as Toronto does, and the Provincial since incorporation will have to do viz., have two members from the Ontario Bee-keepers' Association on their committee, and these appointed by the association, (O. B. K. A.) it would, doubtless, be an excellent movement.

R. F. HOLTERMANN.

Brantford, Ont.

What Friend Holtermann has said of judging is perfectly true. At London there was sufficient work to occupy three competent judges in the honey and apiarian supply department a whole day. In fact, in point of quantity of goods exhibited, the Western fell little short of Toronto. With the exception of Mr. W. H. Weston, who was a practical man, and whose decisions in the majority of instances gave satisfaction, the judges knew little or nothing about honey and less about supplies. To show that the directors did not tully realize the importance of the honey department, the following may be instanced: Representatives of the two principal exhibits in supplies called at the office of the association to enquire whether or not *practical* men had been chosen as judges for this department,

as the exhibits and results were of such importance to demand this. The reply was that the whole matter had been taken into careful consideration and that ample provision had been made. How *ample* what we have said before will explain. We want a separate department and competent judges, and then we will be satisfied, and yet have nothing more than the growing importance of the industry demands.

An Essay read by Mr. C. F. Muth at the North American Convention at Indianapolis, Oct. 12th, 1886.

SUCCESS IN BEE-CULTURE.

SUCCESS in life is our object-lesson from childhood. We were taught to be industrious, saving, persevering, and prudent in order to accomplish the object. It is not my intention to-day to give you an essay on success in life nor success in business, as these are matters which are not only taught, but lay within us to a great extent, and are often determined by surrounding circumstances, and our individual sagacity, of making use of them. My object to-day is to give you my own manner of manipulating an apiary by which the largest crop of honey may be produced with the least expense and the least loss of time.

I have kept bees for the last thirty years or more, and the average number of colonies I commenced each season with, for the last 25 years, was between 45 and 50. Being in the mercantile business I had the chance, almost every spring, of selling all the bees I meant to dispose of, which I did. My wintering during all this time was as successful as that of the best of my neighbors, and none of them produced larger crops of honey in proportion. I should have, therefore, an idea of bee-keeping, if I am no specialist.

A successful wintering of the bees is one of the foremost requirements of the coming crop. The subject having been discussed by a number of able writers, I shall not dwell upon it now, but will state that success depends upon a strong healthy colony in the fall, plenty of honey and dry comfortable quarters. Honey and pollen are the natural food of the bee, and the most wholesome, unless our negligence or ignorance causes them to decompose, and when, then, they act as a poison, we should blame ourselves only.

We know that the strongest colonies, at the beginning of the honey season, will give us the largest results. Most of us have the experience that a strong colony had collected 150 pounds or more of honey while the product of its next neighbor, a pretty strong colony also, was not more than 10 or 20 pounds. The difference in

the strength of the colonies was the sole reason for the different results.

"What shall I do to coax my bees into the honey-chamber?" This innocent question has brought out a number of ridiculous answers. My answer would have been: Build your brood-chamber up by having it strong in brood and bees, and then pray for a yield of nectar. Without a strong colony there will be no crop, and unless the blossoms yield, there is no honey forthcoming. If we acquaint ourselves with the laws of nature, we shall not commit the folly of "coaxing."

The largest crop of honey being our object, we want a large brood-chamber the capacity of which accommodates the laying capacity of a good prolific queen as near as this is possible. We want a large surface *above* the brood-chamber, for we know that bees store most readily their honey above their brood. The 10-frame Langstroth hive suits me best, as it affords room enough for most prolific queens, providing we manage to have the 10 frames filled with brood. All frames filled partly with brood and honey should make room, in due time, for empty combs, and be used to strengthen weak colonies. Wishing to avoid all "coaxing," no honey-chamber is put on any one of my hives until the lower story has every comb filled with brood. Exceptions are indulged in only during poor seasons when we have to save our combs from the moth, and "coaxing" is out of the question.

It being my object to get my colonies strong as early in the spring as possible, they were overhauled in March or early in April, and all colonies confined to as many combs as each one could well cover. As long as the weather is cool, enough honey should be between their division-boards, so as to have it within easy reach. But combs with honey placed on the outside of division-boards when the weather becomes warm answer every purpose, and are preferable as a stimulant for breeding up to all stimulative feeding of liquids. The division-boards should not touch the bottom by about one-half inch, allowing the bees an easy passage to the other side. They should be spread in due time, and an empty comb inserted as the growth of the colony requires it. But—make haste slowly. Brood will chill in the combs during cold nights unless there are bees enough to cover it.

In order to be prosperous, bees should be crowded from the beginning of spring to the end of the honey season, and to know what is "crowded," without over-crowding, shows the standard of the bee-keeper. When the queen feels crowded for the want of room to deposit

her eggs, she imparts the swarming impulse, and is among the first to leave the hive. If, however, the queen is ever so well accommodated by young queens hatching, and thereby making room for her, and yet the bees are crowded for the want of room to deposit honey, *they* create the swarming fever when the queen is one of the last leaving the hive. We know that all the honey gatherers except those in the field are gone with the swarm.

No honey will be collected for a week or two, and the honey-chamber should be placed on the new swarm as soon as hived. There is no excuse for a bee-keeper allowing a second and third swarm to issue, as it is an easy job to look over the brood-chamber on the tenth day, or earlier, and to make use of the surplus queen-cells or destroy them as the case may be.

Honey being the object, we make a mistake depending upon natural swarms for an increase, as we thereby deprive our colonies of their force of foragers during, perhaps, the best flow of honey; and if a bee-keeper does so, he shows a neglect, of which, I admit, any one of us may be guilty, or he betrays a lack of knowledge, or, perhaps, a fear of the "tail end" of the bee.

As stated above, I want a large hive and a large colony of bees. I make no early swarms, but equalize my colonies before the harvest commences, taking, however, no frames of brood and adhering bees from any colony until it is very strong, near the point of swarming, and no honey-chamber is put on until the 10 frames of the brood-chamber are filled with brood. If this equalizing cannot be done with every one of my colonies before the season opens, I leave those weak colonies to fill their side combs with honey until they can be exchanged for combs with brood from strong colonies, when *their* honey-chamber is put on also. We cannot prevent queens entirely from entering the upper story, but by an observance of the above, it is the exception rather than the rule to find combs filled with brood in the upper story. When producing extracted honey exclusively, brood in the upper story does not bother us any. When comb honey is produced, a zinc division-board will prove a pretty certain preventive.

When the combs of the upper story are filled with honey, I exchanged them for empty ones, and whenever a comb with brood is found, it is placed on the left side in the honey-chamber. When done with all, and extracting is over, those hives having brood in the upper story, get another overhauling. When the number of brood-combs in any one honey-chamber indicates that the queen has been neglecting her business below, the brood-chamber is looked over, and

combs with honey and bee-bread, if any there be, are exchanged for combs with brood from above. Otherwise those combs with brood and adhering bees are used to strengthen up weak colonies to form nuclei, or to make colonies by division. The parent colonies are thereby not deprived of any of their foragers, as all the old bees return. My colonies made by division consist of 20 combs, if possible containing brood and honey and adhering bees. A queen-cell or queen is given them on the following day. If the latter is the case, the new colony needs a looking over in the course of a week, or earlier, as the case may be.

The same process is gone over in the same manner when the combs are filled again, and so on to the end of the season. The result is that old colonies and new swarms are alike well provided, and that the latter gave me as much honey as any, in proportion, and natural swarms have not bothered me any. The queens having had ample chance to deposit their eggs, contract their brood-nest with the close of the season, honey takes the place of brood in the side-combs, and if the necessary winter stores are not accumulating in the brood-chamber, it is accidental and caused by the season. Extracting is never done too closely, and honey enough is left in the upper story to give each colony its full supply, and to provide for unexpected emergency the following spring. We never calculate these combs as part of the crop of the season, as we want our bees to be self-supporting if possible.

I do not want to winter my bees on sugar syrup, and I fail to see the advantage and the good policy in doing so. It is uncertain, of course, what the next winter may bring, but as far as wintering is concerned *with* pollen or *without* it, and with natural stores, I will run a race with any one of you syrup-feeders.

With the above method I verily believe that my bees, *not* my hives, have gathered as much honey as the bees of any of you. The interests of sugar refiners have not been benefited at the expense of the bee-keepers; my neighbors do not suspicion me of producing honey from sugar syrup, and my labor has not been excessive, but has met all the requirements of my colonies. If labor and expense are worth any consideration, my apiary proves, in only a fair season, the most grateful of any of my investments.

When placed under a microscope the sting of a bee presents a polish of dazzling beauty; but when placed in the end of a man's nose the polish is missing, and the appearance more like that of a rat-tail file dipped in vitriol. This is official.

American Agriculturist.

BEES IN NOVEMBER.

EVERY observing bee-keeper has noticed the effect upon our calling of unprofitable seasons, like that just closed. Many will become discouraged, others will be indifferent and careless, and the result will be a great loss in bees, combs and fixtures. It is a noticeable fact that such a poor season is almost sure to be followed by a good one. This being the case, every prudent and far-sighted bee-keeper will see the desirability of keeping his stock in the best possible shape, and of holding himself in readiness to make the most of a better season when it comes. We should remember that this is but a temporary embarrassment. We should avail ourselves of every advantage to winter our bees successfully. Preserve all surplus combs and boxes, and keep them in best possible condition for use the coming year. Seasons like this just past are full of experiences that cannot be acquired in any other way. The readers of these notes who continue in the business will more than likely meet such vicissitudes in the future. Instead of being discouraged and faltering, we should learn lessons that will be of value to us in bridging over reverses to come. In this, as in all other callings, only those will succeed who prove themselves equal to the emergencies of the "off years," and embarrassments to which all occupations are liable.

Read, mark, learn and take encouragement from what one of the best American bee-keepers says in the above. L. C. Root, of Mohawk, is the writer.

Western Farmer.

DESCRIPTION OF THE CARNIOLAN BEES.

THE bees of Carniola are noted for their great gentleness. They only rarely resent manipulation, and need very little smoke to subjugate them. It might be thought that they were lacking in pronounced qualities, but on the other hand, they show decided traits peculiar to themselves and accompanied by distinctive markings, and are therefore as justly entitled as any bees found in Europe to be called an established race.

The typical, select Carniolan queen has a deep copper or bronze-colored abdomen, thorax thickly set with gray fuzz, large, strong wings and a large, stout-looking body. Carniolan queens are larger, on the average, than those of any other race, having especially broad abdomens. Some queens are quite dark, even attaining with age a shining jet color. Such queens, though themselves resembling queens of the

common race, do not produce bees in any way inferior to other Carniolan queens. Also pure Carniolan queens are occasionally met with which are as yellow as Italians; yet they invariably produce workers and drones which are distinctively Carniolan.

In all parts of Carniola some queens are found which produce bees having the first segment of the abdomen somewhat rusty-red in color, and they are as often seen among the finest and prolific queens as among those of any other grade. Nevertheless, variation in color and quality is less with Carniolans in their native land than with Italians in Italy. Yellow workers are not found in Carniola, while black bees—natives, too, are not imported—exist in Italy. The remarkable size and general bronze color of Carniolan queens, in contrast with the grayness of their progeny, make it easy to find them on the combs. They are exceedingly prolific and herein lies one of the very valuable qualities of this race.

The drones are veritable "gray-coats," and stout, active fellows, having especially large wings.

Carniolan workers are silver-gray in color, large-bodied and strong-winged. The thick fuzz of the abdomen is disposed in light-colored bands, and as dark drab is the ground color of the bee the effect is a decidedly ringed appearance.

The following are the good qualities of the Carniolans: 1. The race is a prolific, well-established one. 2. The workers are gentler than any other bees. 3. They submit more readily than other bees upon the application of a small amount of smoke. 4. They are excellent comb-builders, and their sealed combs are of snowy whiteness. 5. They gather very little propolis. 6. Colonies in a normal condition are vigorous defenders of their hives. The workers are the largest bees of the species *Apis mellifica*, and their individual strength is greater than of other honey-bees. 7. Carniolans cluster very compactly and quietly, and winter remarkably well. 8. Queens, workers and drones are more beautiful than those of common bees.

Their faults are, so far as I know: 1. When made queenless they are thrown into great excitement and neglect at first to defend their hives well. 2. They are slightly more disposed to rob during honey-dearths, than are Italians, though far less troublesome in this respect than blacks, or Italians crossed with blacks.

Some might be disposed to bring up as a grave fault the disposition which Carniolans frequently show to cast numerous swarms. I believe this disposition in any race depends almost entirely

upon the prolificness of the queen; in fact it is, with all races, greater in proportion as the queens are prolific. Prolificness in queens is the bee-keeper's corner-stone. Swarming is nature's escape for the surplus strength of the colony, and the bee-master has but to direct this force. Whoever cannot do this, is not a master in the art. This, to some, seemingly "bad trait" is preferable, therefore, to one of the most indispensable qualities—prolificness of queens—and is implied and properly included under the seventh point above.

It has been objected by people who claimed to have some knowledge of bee-keeping, and even to know a good deal about foreign races, that "they could not tell Carniolans from common bees." Such persons will find there is still something for them to learn. A number of writers have said that they could not be distinguished from the black bees only by an expert. This is not true of the ones I have seen. There is very nearly as much difference between them and "blacks" as there is between them and the Italians, and we think any child twelve years old would be made to see this as soon as its attention was called to it.

Even if this objection were sustainable it could not be regarded as a very grave fault. Color is quite a secondary matter as compared with qualities, and as regards the latter, I am satisfied the Carniolans are superior to all other European races of bees.

FRANK BENTON.

Munich, Germany.

ANOTHER CASE OF POISONING.

FROM the *Newmarket Era* we clip the following, which is only another case of an extra amount of poison being injected into the system. The particulars of the case are similar to those described by the writer in his own case on page 494, Vol. 1, and we believe had the same remedy been applied promptly, less dangerous would the results have been. The proportion of ammonia to the glass of water is one teaspoonful. This under ordinary circumstances would be sufficient to strangle any well person, but in this case it has the effect of restoring the person to a normal condition, counteracting the effect of the virus of the bee.

"An extraordinary case of poisoning took place in town last Saturday afternoon, which nearly resulted in the death of Miss Gertie Beckett, eldest daughter of Mr. N. J. Beckett. She had poured some hot water into the dish-pan for the purpose of cleaning up the din-

ner dishes and on putting the dishes into the water she observed a bee floating. Not thinking but what the insect would be scalded to death she dipped her hand under it to remove it from the pan when the insect stung her on the end of her finger. Having left its stinger in the flesh, her hand commenced to pain her immediately. She sat down with the intention of pricking it out by the aid of a needle but in two or three minutes she commenced to feel a pricking sensation and numbness all over her body, beginning at her toes. She spoke of her peculiar condition to her mother who at once noticed that her face was swollen. Becoming greatly alarmed the neighbors were called in and they commenced at once to fuss with her by applying hot cloths and anything that in their judgment might be of service, for it was noticeable that her whole body was swelling. Medical assistance was also sent for and he found the patient in a very critical condition, which may be imagined from the fact that the Dr. was obliged to make two visits daily most of the time since. Within ten minutes from the time she was stung she was entirely unconscious and the doctor expressed the opinion that if the ladies had not done what they did, she would have been dead before his arrival. It appears the sting of the bee entered a very important vein and the insect, being very much irritated by the hot water, discharged its venom to the fullest extent. Miss Beckett suffered severely for three or four days, but is now out of danger."

A few days ago as Mr. Glenn, of the Eighth Concession, of Chatham Township, was ploughing in one of his fields, a swarm of bees alighted upon his head and upon the backs of his horses. The horses, terrified, ran wildly through the fields, and Mr. Glenn escaped to the house with his terrible head-dress. He was very badly stung, and has since been under medical treatment.

BEE-KEEPING IN RHODE ISLAND.

Although according to the little quatrain the bee is a busy thing and gathers honey, in reality no one is so busy as the bee man or gathers so much of the nectar. If anyone imagines bees take care of themselves and sweetly build their masses of comb and stock them without care they are entirely ignorant of what a bee-hive means. The tiny "buzzers" are as erratic as young children are, as if spoiled by their own sweets. Oftentimes the commercial value of the hive is destroyed by their habits; in fact it is the direct tendency of all bees to drift away into unproductiveness. A good queen produces 3000 eggs daily under favorable conditions. A "worker" is a productive agent for about six weeks on the average, and this insect's existence must be protected from crowded hives and drones in the hive. Pasturage must be provided, and though a honey-laden bee can find the way home from six or seven miles, the danger of diversion

from the beeline taken at return time is too great to be risked. Even five miles is too far. One must know of the pastures of plant and tree blossoms within a couple of miles, or his bees may be lost suddenly, or their gathering powers lessened. Keep the busy bee busy, is an admonition to be hearkened to by all beemen. And then pure honey alone is what sells, and what it pays to market—pure honey in the sense of the fine article. Even golden honey is behind the times now. The comb which obtains the highest perfection must be fairly ambrosial in its translucence. A problem, too, is the matter of getting the best bees—bees that will do the most with the least output of care, and that will be able to accomplish everything towards making their keeper trustworthy and successful to the best degree. It is not difficult to understand how important care and study of the subject are in owning bees, when one regards some of these points.

Enterprise and honesty have brought as great success to the bee man as in any business, and to those who know anything about the production of honey, this means a great deal. With the adulterations of modern times have come adulterated and probably bogus honey, until one is sensible that buying honey may be a very foolish thing, since he gets nothing but sugar, water and gum arabic for his hard-earned money. And the idea of hardy wage-workers buying honey is not so queer as it seems, for there has been a time when the pure sweet was obtainable by ordinary people. Perhaps even now some poor man would purchase for the sake of titivating his old sense of taste, if only he could be certain that he was eating what he paid for. In Rhode Island a number of ambitious bee men have sprung up and a few years ago, to protect themselves and the markets from adulterated honey, united into a society. It is largely due to this organization's industry in the State that the reputable retailer now has a pure article for his customers. Only a few years since the latter was obliged to sell what was bought by him as pure honey, and if he learned that he had been deceived he could not depend upon getting a pure article from another dealer. Two or three prominent apiaries have been written of in the JOURNAL of late years.

Perhaps Mr. Samuel Cushman, of Pawtucket has put as much study into keeping bees for dollars and cents as any one, and assuredly he has achieved a high position as a honey raiser. He has an apiary in Pawtucket at the corner of Middle and Clay streets, and others in Burrilville, and Uxbridge, Mass., comprising about sixty hives. He does not sell bees, hives or

supplies; only honey, and this in the comb almost entirely. Mr. Cushman is modern in all his methods. He is a young man and full of ambition. He has read into the theories of his line of business, and accompanied earnest book study with diligent and industrious observation of the bee as it lives and works in its commonest conditions. He is not, to express a thought another way, one of those beings upon whose person the insects lovingly swarm as if they had discovered one they must obey out of instinct. On the contrary, they sting him once in a while, and he smokes them out whenever he wants to get at any honey. He keeps bees for profit, and tries in a hundred ways to make his care for them the most scientifically economical that is possible. And they appear to like it. He has Italian, Syrian, Holy Land, Carniolan and native black bees. A strong colony is estimated to contain from 40,000 to 60,000 workers. Mr. Cushman has arrived at the conclusion that certain crosses of the races are the best honey-gatherers and comb-builders, and his best colonies are thus made up. The Italian, Syrian, Holy Land and Cyprian bee is yellow. The Carniolan is from Germany, and looks about the same as our common black. Certain very desirable qualities are claimed for these by those who have tested them. At present Mr. Cushman is devoting his bees to the work of building up strong colonies, to enable the hives to withstand the winter. In view of the fact that buying and feeding sugar looks suspicious at any time, even when honestly done, most bee-keepers advise and follow the plan of feeding nothing but pure honey at such times as they may need to rear bees, or for winter stores, and so help keep their product above suspicion. Cheap foreign honey can be fed and stored in boxes, but most would prefer to buy it at cheap rates in the original barrel or can or at least know what they are buying. For a week or two in August there is often an entire honey dearth when bees greedily appropriate any sweet molasses from grocers' hogsheads sugar syrups, candy in the shops, etc. This has been urged against honey from town apiaries, but the modern bee-keeper will not have boxes on the hive during this season, and sweets from such a source are not sold in surplus, but furnish food for the young bees. When box honey is removed from the hive the bees are often left with little, and but for feeding would die in winter. At such times the practice has been to feed syrup made of granulated sugar, sufficient to last them through the winter. In order to control his own honey production as far as possible, Mr. Cushman has devoted himself to his business in the broadest sense of the word. He

practically manufactures his own boxes, and the arrangement of his hives outside and inside is what he has made his own after thorough examination of the task of bee-keeping. By conscientiously carrying out the line of principle and economy which dictates, as above, the keeping of bees he has been enabled, with several others, to not alone gain a reputable fame as a honey producer, but likewise to make money. He has found, as has been stated in the fact before, that honey is so good that people will encourage the production of it by buying when it is known to be pure.

A bee-hive of to-day is not the conoid, chined by rings, upon a stand, which a child was wont to find in the picture in his old reading book. Several years ago they began to consist of large upright cases, but these were placed on a high stand. The system and science of the present makes of the hive a flattened, roofed case upon the ground. Each case contains, instead of the old-fashioned compartments, which held comparatively vast measures of comb, one large compartment. From side to side run frames nearly as wide as the compartment is high, and having room enough between them to admit of the building out of the comb. Seven or eight of them are usually found in one hive. The frame takes the place of the old-fashioned box, in which, as referred to before, the bees stored honey in the other days. They were left, in those days to form the entire comb. In relation to this, probably the most important advance in honey-production for years has been an invention by which the busy bustling bee is saved work of the most exhausting kind in building comb like this. Formerly the insects were left to start their work as they pleased. Sometimes it was hard to induce them to start at all, for the task of constructing a foundation for the comb was not pleasant. It required time, too. These new frames take their names from the fact that they are like for instance, window frames. The invention is a thing called comb foundation, and is to these frames like window glass to window frames, though it does not serve for lighting. Comb foundation is a thin sheet of pure beeswax with the impression of cells made on each side, of same size and as regular as when made by the bees. A rim of wax is left around each cell base, which is built out into comb by the bees. It is made of different weights, that used in the body or brood nest of the hive being quite thick and containing wax enough to furnish material for the complete comb. It is readily accepted by the bees and is worked out in a few days. That for surplus boxes is very light, about 12 or 14

square feet to the pound, and is almost transparent. By its use the bees store honey more readily in small boxes and finish or fill out the whole box better. By the use of separators, thin movable partitions placed between each row of boxes, they are guided to build the surface of the combs as flat and even as a board, without which they are uneven and bulged, and cannot be crated. Now with the frame is used a machine called the extractor. This is of German invention. By centrifugal force the honey is thrown out from the combs, which are first uncapped by delicate knives. The frame containing the comb is removed when the cells are emptied of their contents, and replaced in the hives, where they are refilled by the bees, thereby saving the honey required to make wax and the labor of building the comb. In modern hives all combs are built in frames, and are easily removed. Such combs may be extracted time after time, season after season and be as good as ever. By extracting every few days during a honey flow large yields are obtained. According to scientific bee men, the busy bee does not gather honey in a commercial form directly from the flowers it lights upon. The nectar which lies in each blossom is carried to the hives and stored in the cells, but not until the cell is making does the fluid become commercial honey. Then formic acid is added, and again the comb is treated with it when the comb is capped, the acid being absorbed through the porous capping. This is not only a preventive of fermentation, but it changes the raw or natural sugar to its inverted form, similar to grape sugar, giving that smooth, mellow taste. This change partly digests the nectar, making it nearly ready for assimilation. A change similar is made in cane sugar in the mouth by the action of saliva before it is swallowed. Such honey is less irritating and a better food. There are many valuable facts in regard to the use of honey as a food and medicine which are not generally known.

The principal sources of honey are willow, maple, dandelion, pear, gooseberry, plum, apple, locust, raspberry, blackberry, horsechestnut, white clover, alsike clover, basswood, catnip, buckwheat, golden rod and wild asters. Flower gardens are of little or no account as sources of honey. The gentleman who has been referred to has his surplus crops from apple, raspberry, clover, golden rod and asters. Apple honey is not generally obtained in quantities in boxes, but by special management it is obtained when the weather is such that the bees can work during blossom time. It costs more bee power to get it, and as it is rare will bring a better

price than white clover. The latter is sometimes a failure and to be sure of a good crop of white honey one must plant yearly alsike, or swedish clover, which yields a better quality than even white clover. Farmers that have low clay land find alsike a better crop for hay than red clover and when it is ever grown it will be grown again. Raspberry follows white clover, and often furnishes most of the surplus in this region. It is excellent. Basswood furnishes the main honey crop in many locations, but is not abundant here. Golden rod and aster honey is amber colored, and is preferred by many to any other. Its flavor is pleasant and delicious as a change. Buckwheat furnishes a dark honey of rather a strong flavor, which many like. It sells for less, and the best dealers let the bees have it. The other sources named furnish no more than the bees use for breeding. As a general thing the whitest and clearest comb-honey sells the best, and in order to suit the trade the producer removes his boxes as soon as the cells are sealed, thereby getting it before it is colored from remaining on the hive. But sealed honey left on the hive is much the nicest, is thick, smooth and mellow, compared with the other, though the cappings are darkened and discolored.

The honey crop this year has been a poor one throughout New England and New York State. Clover and basswood failed to secrete honey in any amount, and the largest producer in New England reports but one-eighth of a crop. One of the most successful producers in New York State reports one-third of a crop, and the most unfavorable season in ten years. The season in California has not been up to the average. Texas is also behind, although enormous yields are usually reported. But on the other hand, Virginia, Ohio, Indiana and Iowa have been favored with a bountiful honey harvest. Mr. Cushman, by different management from usual, managed to take some surplus ere the clover season. He has a fair amount for the season, and if the fall flowers yield well the outlook may not be so unfavorable as now. It would appear as though honey would not be as cheap as last winter, although there may be large quantities of extracted honey in the hands of dealers, which has been kept over.

That the honey-raising industry is a growing one in every sense of the word, may be well appreciated from the fact that the Government has lately recognized its importance. At Aurora, Ill., the Apicultural Experiment Station has been founded and is under the charge of Prof. N. W. McLain. New York State will soon have one under the charge of Prof. Com-

stock, of Cornell University. Although in this State no State encouragement has been given the business, it has thrived greatly, and at the coming fair of the Society for the Encouragement of Domestic Industry, its extent and thoroughness will be shown by exhibitious of honey, etc.

WESTERN FAIR PRIZE LIST.

Display comb Honey in most marketable shape, product of one apiary in 1886—J. B. Aches, Poplar Hill; Wm. Coleman, Devizes.

Display extracted Honey in most marketable shape, product of one apiary in 1886—J. B. Aches, Poplar Hill; Wm. Coleman, Devizes.

Display of comb Honey in most marketable shape, by a lady, product of her own apiary in 1886—Mrs. John Rudd, London; Mrs. W. Begg, Grantin.

Display of extracted honey in most marketable shape, by a lady, product of her own apiary. Mrs. R. H. Smith, Ealing; Mrs. Jno. Rudd, London.

Comb Honey, not less than 20 lbs., quality to govern—Wm. Coleman, Devizes; J. B. Aches, Poplar Hill.

Extracted Honey, not less than 20 lbs., quality to govern—J. B. Aches, Poplar Hill; Wm. Coleman, Devizes.

Best granulated Honey—John Rudd, London; R. H. Smith, Ealing.

Crate comb Honey, not less than 20 lbs., in best shape for shipping and retailing—J. B. Aches, Poplar Hill; R. H. Smith, Ealing.

Colony of bees, properly named, must be the progeny of one queen, and exhibited in such shape as to be readily seen on two sides. Purity of race, docility, size of bees and numerical strength to be considered—John Rudd, London; R. H. Smith, Ealing.

Display of Queens to be put in such shape as to be readily seen by visitors (blacks not to compete)—J. B. Aches, Poplar Hill.

Best marked Queen Bee, bred in Canada—J. B. Aches, Poplar Hill; John Rudd, London.

Greatest variety of Queens put up in same shape as for display of queens—J. B. Aches, Poplar Hill.

Bee Hive for all purposes in the apiary—E. L. Goold & Co., Brantford; John Rudd, London.

Best Bee Hive for extracted honey—E. L. Goold & Co., Brantford.

Best Bee Hive for comb honey—The D. A. Jones Co.

Honey Extractor—The D. A. Jones Co.; E. L. Goold & Co.

Wax Extractor—The D. A. Jones Co.; E. L. Goold & Co.

Foundation Mill—The D. A. Jones Co.

Beeswax, not less than 5 lbs.—J. Skeoch, Connuna; J. Alpaugh, St. Thomas.

Comb Foundation for surplus honey, not less than 3 lbs.—Will Ellis, St. Davids; The D. A. Jones Co.

Comb Foundation for brood chambers, not less than 5 lbs.—Will Ellis, St. Davids; The D. A. Jones Co.

Comb foundation machine, making best foundation for brood chamber on the ground—J. Skeoch Connuna.

Best pound sections, not less than fifty—The D. A. Jones Co.; E. L. Goold & Co. Brantford.

Best one piece section for honey—The D. A. Jones Co.; E. L. Goold & Co. Brantford.

Best dovetailed section for honey—The D. A. Jones Co.; Jacob Alpaugh, St. Thomas.

Package with labels for retailing extracted honey—The D. A. Jones Co.; E. L. Goold & Co. Brantford.

Bee Smoker—E. L. Goold & Co.; The D. A. Jones Co.

Bee Feeder—The D. A. Jones Co.; E. L. Goold & Co.

Honey Knife—The D. A. Jones Co.; E. L. Goold & Co.

Display of Apiarian Supplies—The D. A. Jones Co.; E. L. Goold & Co.

Queen Cage, such as is admitted to the mails by postal laws—The D. A. Jones Co.; E. L. Goold & Co.

Honey Vinegar, not less than one gallon—J. B. Aches, Poplar Hill; Wm. Sadler, Lambeth.

Honey Wine—None

Extras—E. L. Goold, Brantford, Dip.; John Rudd. Highly commended.

BRANT BEE-KEEPERS' ASSOCIATION.

THE first question taken up was fall feeding. Those present were of the opinion, generally, that feeding should be avoided, especially sugar syrup, not because bees were less liable to winter successfully, but on account of the erroneous impression it gave the untutored and the increased quantity of honey thrown upon the market.

Those wintering outside in clamps recommended that the propolised quilts should be removed and replaced by fresh porous ones; that care should be exercised to place sufficient packing above the frames to prevent any rapid current of atmosphere from passing upwards through the hive, and sufficient substance to absorb the moisture; flannel was recommended, and also oat and clover chaff as being convenient substances.

For cellar wintering the general impression was that the cloths propolised do not require to be removed; the temperature should be sufficiently high to evaporate the moisture in the hive and hold it in the form of vapor in the cellar.

Passages should be cut for the bees in the combs, or a way devised for them to pass over the combs; the latter being preferred as simpler.

Some contracted the hive in the winter, others did not. There was a diversity of opinion as to the advisability of spreading combs and taking cards from the hive late in the season.

The question of prospects for prices

of honey was taken up. The low prices received for honey in Brant spoken of and the general impression was that bee-keepers were to blame themselves. There was no necessity for such, although it would have the beneficial effect of placing honey in the hands and upon the tables of men who heretofore have been strangers to it.

The next meeting of the association was fixed for Saturday, Jan. 15th, 1887. The meeting then adjourned.

R. F. HOLTERMANN, Sec.-Treas.

THE CANADIAN BEE JOURNAL

JONES, MACPHERSON, & Co.,

EDITORS AND PUBLISHERS,

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, OCTOBER 27, 1886.

We are just executing an order for 50,000 sections, the largest order ever furnished any one bee-keeper in Canada. This is one result of our "reduction" offer in the JOURNAL.

We shall publish the essays as given at the Indianapolis convention, as we find room for them, and in proportion to their value.

The sympathy of the editors of the CANADIAN BEE JOURNAL is tendered to Mr. T. G. Newman, editor *American Bee Journal*, who has just been called upon to mourn the death of his mother, at the advanced age of 86 years.

Mr. Charles Mitchell, at Molesworth, is the accredited agent for the CANADIAN BEE JOURNAL in that section of country, and any receipts given by him for moneys received on account of the JOURNAL are all right.

We must apologise to Rev. Wm. F. Clarke for our neglect in not informing our readers that he was the representative of the CANADIAN BEE JOURNAL at the Indianapolis convention. This journal has, we believe, the first report of the convention, in full,—the papers presented will be published as fast as we can obtain them.

A TORONTO SUPPLY DEPOT.

Mr. John McArthur, Toronto, is doing a large city trade in honey. His customers can always depend on receiving a good article and one which will always be found the very purest. We have established at his place of business, Yonge Street, a supply-depot for Toronto and vicinity.

We will always keep on hand a full stock of all the leading staple lines in supplies, such as hives, foundations, knives, sections, extractors, etc., which can be had at our regular price list figures. The stock will be on hand in time for next season's trade.

The subscription list of the CANADIAN BEE JOURNAL still grows, not a day passes but new names are added to our list. Our premium offers are being taken advantage of largely and are materially aiding us in swelling our list. We wish however to add still another three thousand to our list, and to this end ask the co-operation of our present subscribers. There is hardly one of you but can send us another subscriber if you will only take a little trouble, and one subscriber from each of our present ones will give us over three thousand new ones. Will you not help us to gain this end? It will be money in your own pocket, because if we can add the number of names to our list we are counting on, we will make many changes for the better in the journal that will be of value to you.

Middlesex county is to have another large apiary. at least so it would seem from the following item clipped from the *American Bee Journal*:—A Company has been organized to be known as "The International Honey Co.," whose intentions are to establish apiaries in Cuba, the United States and Canada. They have accordingly made all arrangements to sail from New York on Oct. 14, for Cienfuegos, Cuba, with everything necessary for the equipments of a first-class apiary, at which place they intend to locate and establish a large apiary during the coming winter. During the summer season, when the bloom of Cuba does not yield nectar in sufficient quantities to render the business profitable in that island, they intend to come north (where they already have one apiary), and locate their next in Middlesex Co., Ontario. The Company is composed of A. T. Finn, H. E. Hill and R. M. Muller. In this they calculate upon obtaining good results by having a honey-flow the whole year around. They will report the result of the experiment in the *Bee Journal* in due time."

THE PROVINCIAL EXHIBITION.

On page 645, *A. B. J.*, Rev. W. F. Clarke says, speaking of the display at the Provincial Exhibition lately held at Guelph: "The Provincial does not offer so tempting a prize-list for honey and apiary supplies as the Toronto Industrial, hence the competition is to a large extent local.

There is a jealousy between the officials of these two organizations growing out of the rivalry between them, and as Mr. Jones has from the first been a leading spirit in the Toronto Industrial, I think he does not show at the Provincial. At any rate he did not this year." Lest this paragraph should give forth a wrong impression let us explain. We have no such objection to showing at the Provincial as is imputed to us, nor does the "tempting" prize-list at Toronto "draw" us there. The facts are these: only those who have made displays such as we generally make, know or understand the expense attending them which is not by any means met by the cash receipts from prizes. This, then, is one reason and the principal one why we do not show at the Provincial, another is, because were we to begin the practice we should feel like continuing it, and to do this we would have to run all over the country, and in many places would be requested to put up with very indifferent accommodation, not enabling us to make the display we could wish, and rather than not do it well, we prefer not doing it at all. Again, we are averse to making exhibits before other than practical men. It has been said that the name had a good deal to do with the distribution of prizes, and to do away with any chance for busy-bodies to say such things we prefer to have only practical men judge our exhibit. Lastly, the Toronto and London exhibitions take in the visitors that we wish to reach pretty effectually. Should we show at other points than these, it would probably be at Montreal or some point farther east, to enable our many customers in the Eastern townships to visit us.

SPECIAL NOTICES.

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 3½x4½ and 4½x4½ and in widths of either 1½ or 1¾ 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.

ONTARIO BEE-KEEPERS' ASSOCIATION will meet in annual convention in Toronto (probably at the city Hall) on Tuesday and Wednesday, 7th and 8th, 1886, when the commissioners of the association will make a report of their trip to England, and other business of importance will be transacted. A full attendance is requested. W. COUSE, Sec.-Treas., Meadowdale, Oct. 25th, 1886.

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.

HORNING'S MILLS, ONT.

Demand for honey is very slow. We are offering now for best extracted 10 cents, other qualities 8 and 9 cents. White comb honey 15 cents, 25 cents allowed for package. We offer the above prices in supplies of any kind except foundation.

S. P. HODGSON.

DETROIT HONEY MARKET.

Best white comb honey in one pound sections 12 to 13 cts. with a good supply in the commission houses. Beeswax 23 cts.

M. H. HUNT.

Bell Branch.

CINCINNATI.

There is a fair demand for choice comb honey in 1 and 2 lb. sections, which brings 12—15 cts. a lb. in a jobbing way according to quality and neatness of package. There is also a fair retail and jobbing demand for extracted honey in square glass jars, for table use, while the order trade for dark grades—from manufacturers—is improving. Range of prices for extracted honey is 3¼ to 7¼ per lb. on arrival. Beeswax is in good demand and good yellow brings readily 20 cts. a lb. on arrival.

CHAS. F. MUTH & SON.

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.

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, 6¼ 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

Beeton, October 27th, 1886
 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 "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

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,

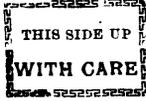
GUSTAVE DAMKOHLER,

Punta Rasa, Monroe Co., Florida.

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
1½ " " ".....	3 50	2 00	50
1 " " ".....	1 75	1 15	30
¾ " " ".....	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. pointing to the
Set it Down Easy. pointing to the
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	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 4½x4½ 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
4½x4½..... \$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 MAINE BEE JOURNAL

Is the only publication in Maine devoted entirely to Bee-Culture. It is a monthly, full of interesting and instructive reading. The subscription price is only 50 cents a year in advance. Samples copies free. Address
 JOURNAL, Thomaston, Me

RAY'S 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.....\$ 50
 " " per 25..... 10 00
 In flat, each..... 35
 " " per 25..... 7 50
 " " " 100..... 25 00

THE D. A. JONES CO.

THE CHAPMAN HONEY PLANT.

In accordance with a previous notice in Bee Periodicals, I am now prepared to fill orders for the seed of the above plant at the following prices:—

½ oz., \$1; 1 oz., \$2; 2 oz., \$3; 4 oz., \$5; ½ lb., \$8.
 One ounce contains from 1600 to 1800 seeds.

On account of extreme drouth my stock of seed is limited and persons ordering will be served in rotation. The seed should be sown in the early spring and general directions for cultivation will be given on each package.

This plant is not an obnoxious weed and is as easily eradicated as clover. Having carefully watched its habit of growth and its honey-producing qualities for the past six years I believe those who commence its cultivation in a liberal way will be better pleased than by commencing with a small quantity of seed. It has been tested by prominent bee-keepers all the way from Vermont to Nebraska and Ontario. We refer to the report of the Committee appointed by the North American Bee-Keepers' Association held at Detroit in 1885. The Committee reported at the Indianapolis, Ind., convention held Oct. 12th to 14th, and their report will be found in all Bee Journals publishing the report of that convention. Write all orders plainly and give your post office address in full.

H. CHAPMAN,

S3-103

Versailles, Cattaraugus Co., N. Y.

A YEAR AMONG THE BEES.

A new bee-book of 114 pages, cloth bound. Price 75 cents. Sent postpaid by the aut. or.
 C. C. MILLER Marengo, Ill.

FOUNDATION MILL FOR SALE

I have still on hand one 12 inch Root Mill, latest pattern, new this spring, and used very little, in good condition every way for which I will take \$26. Just as good as new, everything included, free at express office. First come, first served. Samples of its work sent free.

83-t-f FRANK W. JONES, Bedford, Que.

A BIRD'S EYE VIEW OF BEE KEEPING

—BY—

REV. WM. F. CLARKE

IS NOW READY.

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

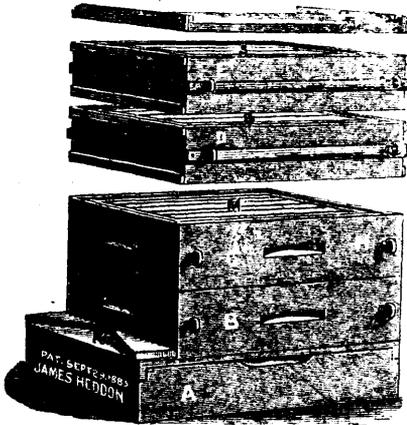
Special Terms to the Trade. It is Interesting, Readable and Practical.

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,

Manager, Beeton, Ont

3-t-1.

FRIENDS If you are in any way interested in

BEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY 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. Tenth thousand sold in just four months. More than 50 pages and more than 50 costly illustrations were added in 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 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 Beekeepers." For circulars apply to

CHAS. F. MUT & SON.

Cor. Freeman & Central Avenues Cincinnati

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 **Apiarian 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. **Unmated queens \$1 each, \$11 per dozen; tested \$3.50 each.** Queens reared in full colonies from egg; safe arrival. Satisfaction guaranteed. Send for circular.

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

ESTABLISHED 1855.

BEE WAX HEADQUARTERS

We have constantly on hand a large stock of Domestic and Imported Bees-wax 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 price Address,

BECKERMANN & 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, 1010 Germantown Ave., Philadelphia
- E. KRETCHMER, Coburg, Iowa,
- E. F. SMITH, Smyrna, N. Y.,
- C. F. DALE, Mortonsville, 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. J. GRAVES, 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 1883 We Guarantee every inch of our Foundation equal to sample in every respect.

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

1886. **ITALIAN QUEENS.** 1886.

SIX 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 CARNIOLAN QUEENS

By return mail, bred in separate apiaries away from other bees. Warranted Italians or untested Carniolan Queens, in June, \$1.10; 6, \$5.00; July, \$1.6, \$5. State which you prefer, BELLINZONA or GOLDEN ITALIANS. For full particulars and prices of bees, send for circular. Safe arrival and satisfaction guaranteed.

CHAS. D. DUVALL,
Spencerville, Mont. Co.



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,

LAUREL BROOK, MONT. CO. N. Y.

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., N.T.

FRANK W. JONES,

BEDFORD, QUE. AGENT FOR

Pelham, Vandervort and Root Foundation Mills

Dealer in and Manufacturer of Apiarian Supplies.