

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Coloured covers /
Couverture de couleur | <input checked="" type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Continuous pagination. |

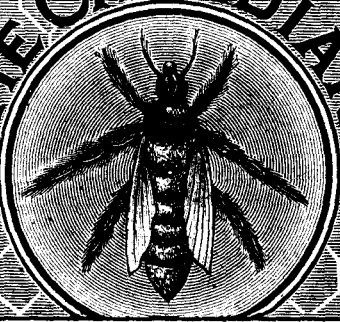
VOL. II, NO. 46.

1887

FEBRUARY 9.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST

WEEKLY

IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY

JONES, MACHERSON & CO.
BEETON ONT.

ADVERTISEMENTS

WE CLUB

The Canadian Bee Journal and.....		\$2 00
Cook's Manual, cloth.....	\$2 25	\$2 00
A B C in Bee Culture, cloth.....	2 25	2 00
Quimby's New Bee-Keeping (cloth)	2 50	2 25
Alley's Handy Book (cloth).....	2 50	2 25
Langstroth the HoneyBee (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	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

BEEES AND HONEY

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

M. RICHARDSON & SON.

Port Colborne, Ont

BEE-KEEPERS' 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 IT—

EXCELS ALL OTHERS

Manufactured by

McCOLL BROS., Toronto

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 all countries not in the postal Union, \$1.00

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

ADVERTISING RATES.

All advertisements will be inserted at the following rates

TRANSIENT ADVERTISEMENTS.

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

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

STANDING ADVERTISEMENTS.

	3 MOS.	6 MOS.	12 MOS.
One inch.....	\$3.00	\$5.00	\$8.00
Two inches.....	4.50	7.50	12.00
Three inches.....	6.00	10.00	16.00
Four inches.....	8.00	13.50	20.00
Six inches.....	10.00	15.00	24.00
Eight inches.....	12.50	20.00	30.00

STRICTLY CASH IN ADVANCE.

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.....	1.20
" " "Bee-Keeper's Guide," monthly.....	1.75
" " "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.

TABLE OF CONTENTS.

	PAGE
Advertisements.....	918
Ants, Honey.....	913
A Remonstrance.....	914
Bee-keepers, English.....	905
Bee-keeper's Lawsuit.....	906
Canadian Commissioners.....	886
Dysentery.....	914
Feeding, Simplicity in.....	909
Heddon's Invention.....	907
Honey, Buckwheat.....	915
Our Toronto depot.....	915
Queen's Wings, Clipping.....	914
Queens, Introducing.....	908

THE CANADIAN * POULTRY * REVIEW

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

Poultry, Pigeon, and Pet Stock Fraternity.

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

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

ECHINOPS SPHÆROCEPHALUS

COMMONLY CALLED

CHAPMAN HONEY PLANT.

SEED FOR SALE

AT THE FOLLOWING PRICES

Half Oz.....	40 cents.
One Oz.....	80 "
Two Oz.....	\$1.50.
Four Oz.....	\$2.00.
Eight Oz.....	\$3.00.

We have only a limited supply and orders will be booked in rotation until exhausted. The flower has been tested by Prof. Cook, Rev. W. F. Clarke and other prominent bee-keepers in America and highly spoken of. Also manufacturers of the Shuck Invertible Bee-Hives &c. Address

E. L. GOOLD & CO.,

Bee-Keepers' Supplies. BRANTFORD, ONT.

BEEKEEPERS' MAGAZINE

Reduced to **25 CENTS** per year after JANUARY 1st, 1887.

SAMPLE COPIES FREE.

BARRYTOWN, N. Y.

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.

* SOUTHERN * HEADQUARTERS * FOR EARLY QUEENS.

Nuclei, and full colonies. The manufacture of hives, sections, frames, feeders, foundation, etc., a specialty. Superior work and "let-live" prices. Steam factory, fully equipped, with the latest and most approved machinery. Send for catalogue. Address

J. P. H. BROWN, Augusta, Ga.

ATTENTION!

SECTIONS, BEE-HIVES, HONEY BOXES, FRAMES, ETC.

LARGEST FACTORY IN THE WORLD.

Best of goods at lowest prices. Write for free illustrated Catalogue.

G. B. LEWIS & CO.,
Watertown, Wis

QUEENS. BEES. QUEENS.

1887.

My Italian **BEES** and **QUEENS** cannot be excelled in beauty and working qualities. I make a specialty of rearing fine bees and queens.

PRICES REDUCED FOR 1887.

Be sure to send for my new catalogue before buying. Address.
FRANK A. EATON,
41-66. Bluffton, Ohio.

MUTH'S HONEY EXTRACTOR.

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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues Cincinnati.

CAN YOU RESIST THIS.

THE BEAUTIFUL, INSTRUCTIVE, HUMOROUS Chromo Card designed especially for bee-keepers. Has a decided happy effect wherever shown. This card will not be thrown away when the articles represented upon it are explained, the story will be repeated many times, educating people and extending your reputation. Bees, Flowers, Children, Implements, elegantly printed in eight colors. Sample package 10 cts.; one sample and price list of same old things. Something new and all to profitably aid the bee keepers. Address
J. H. MARTIN, Hartford, N.Y.

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



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.

THE D. A. JONES CO.,
Beton, Ontario.

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 Hoddon'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 25

Address all your communications to

JONES, MACPHERSON & CO., Boston, Ont



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

VOL. II. No. 46. BEETON, ONT., FEBRUARY 9, 1887 WHOLE No 98

THE DEFENCE FUND.

The following subscriptions have been received in the McIntosh-Harrison case:

A. I. Root, Medina, O.....	\$5
J. K. Darling, Almonte.....	5
Jones, Macpherson & Co., Beeton.....	5
A. L. Swinson, Goldsboro, N.C.....	2
M. B. Holmes, Delta.....	5
G. A. Deadman, Brussels.....	1
J. B. Wrightson, Willow Creek.....	2
R. F. Holtermann, Brantford.....	1
Aspinwall & Treadwell, Barrytown...	5
Josiah Reaman, Carville.....	2
J. V. Battram, Bridgen.....	1
H. A. Scultz, Clontarf, Ont.....	1
Mrs. Henry Stennett, St. Marys.....	2
H. L. Leach, Penetanguishene.....	1
M. Richardson & Son, Port Colborne.	5
W. L. Soule, Highgate.....	1
Allen Pringle, Selby, Ont.....	3
J. Langstroth, Seaforth.....	1
Wm. Hartrey ".....	1
Geo. H. Engel, Musselburg.....	1

BRITISH BEE-KEEPERS.

GEO. NEIGHBOR AND SON'S APIARY.

BY invitation from Mr. Neighbor to join a party of bee-keepers to visit his apiary, we all met at the station and soon found ourselves seated in a cosy carriage which in one hour's time landed us at the station. A carriage was waiting to receive the party which consisted of Mr. and Mrs. Neighbor, Mr. Cowan, the worthy

editor of the *B.B.J.*, Mr. Switzerland and daughter and ourself. After a lovely drive of about four miles to the east we came to the apiary, which is situate on an elevated piece of ground and surrounded by a beautiful hedge. The location and its surroundings are very attractive.

The apiary had been much reduced by sales during the season and at the time contained between 40 and 60 colonies. The entire enclosure is very tastefully laid out and devoted to various kinds of honey plants in different stages of growth. It was very interesting to go through the bee-house, work-shop, etc., which might almost be called a curiosity shop there was so much of it taken up with hives of all patterns that had been secured from either Europe or America in the past 30 years, many of them we recognized as being similar to some we found on the continent. Mr. N. uses the standard English frame with metal ends to keep them an inch and a half apart. The apiary presents a very picturesque appearance containing as it does so many different shaped hives some of them very expensive and evidently designed more for appearance than utility, but as there appears to be a small trade for that cast of hive in England, doubtless he makes it pay. After spending all the time allowed us in the apiary we adjourned to the cottage to lunch, after which we went through the comb foundation room where the manufacture of

comb foundation was being carried on. We were then obliged to cut our pleasant visit short in order to catch the evening train as the driver had proposed taking us back to the station by a different route to show some fine scenery that intervened. Through the kindness of Mr. and Mrs. Neighbor our visit was made very comfortable.

THE APIARY OF MR. D. A. THOMAS.

Hearing that a Mr. Thomas of Sevenoaks (about 40 miles south of London) had about 300 colonies of bees and that he was one of the most progressive and enthusiastic bee-keepers in the country we arranged to pay him a visit. Taking the train at Charing Cross we were joined at the next station by Mr. Thomas and our pleasant bee chat made the time pass so quickly that we fancied the distance much shorter. The country along the route was very picturesque and Mr. T's. description of the different places we passed made it all the more interesting. At Sevenoaks we found his carriage awaiting us, and a drive of four miles brought us to the apiary. The grounds or park make an excellent place for a bee farm. Mr. T. is what we would term a live, progressive bee-keeper, and no one need be surprised if he marches to the front in apiculture in Europe more rapidly than many that commenced earlier in the business. He is quite alive to all improvements and hastens to take advantage of every new invention which promises to be of value. Possessed, as he is, with an unlimited amount of energy, combined with wealth, he is able to carry out any plan that he may desire. He has already established several apiaries around him at convenient distances, as one location would be overstocked with the large number of colonies that he proposes keeping. He informed us that he had taken very large yields of honey. After examining his apiaries and talking matters over with him we were more than ever convinced that he has a future before him in apiculture. We passed from his bee-yard to his work shop where we found samples of many of the latest inventions. In passing through the various rooms devoted to supplies, wax, honey, etc., we were pleased to note that he had provided himself with ample storage room, at least, as he has "a place for everything

and everything in its place." A visit to Mr. Thomas' apiary will repay any bee-keeper and do not forget to ask to see his little daughter. She is one of the brightest children it was our pleasure to see in England—one that any parent might feel proud of.

THE BEE-KEEPERS' LAW SUIT.

WE are indeed sorry to have to say that the case, McIntosh vs Harrison has been decided adversely to the interests of bee-keepers. Since the case was commenced Mr. Harrison's bees have nearly all been swept away by fire and therefore the object sought to be gained has formed only a precedent, as there are now no bees to be removed by the injunction granted. What effect this will have on the interests of bee-keepers in towns and villages we cannot say. If there is any possibility of carrying the case to a higher court it should be done, if not, the less said about the matter in the public prints the better.

With reference to the resolution which was passed by the O.B.K.A. stating as the reason for taking no active measures that Mr. Harrison was not nor ever was a member of the Association, Mr. Harrison writes as follows:

Port Elgin, Jan. 24th, 1887.

"In reading the JOURNAL of Jan. 19th, I notice that it says that the reason the Association refuse to take any active measure in the case of McIntosh vs Harrison is that Harrison is not nor ever was a member of the Bee-Keepers' Association, which I beg to say is incorrect. I joined the Association in Toronto and paid my fee to Mr. Spence the year that Mr. Langstroth visited the exhibition, and the reason I did not continue to be a member was on account of being so far away that I could not attend the meetings but always felt a strong desire to do so. If you will kindly correct the mis-statement you will much oblige."

He also asks us if we know of any one wanting bees cheap to direct them to him as he must have money to pay the costs.

Mr. Chalmers who refers to this case asks as to Mr. Harrison's ability to properly handle bees, on this point we give the evidence of one of his neighbors.

Port Elgin, Jan. 28th, 1887.

On page 806 of the last issue Mr. D. Chalmers.

wants to know if anyone can testify to Mr. Harrison's ability to properly handle bees. I have known Mr. Harrison for a long time and can candidly affirm that he can handle bees as well or better than any man I ever saw, have seen him handle them without either gloves or veil and scarcely a bee would fly off the racks, I have been in his bee yard on several occasions and got bees from him last summer. His bees are fine Italians and are very gentle and quiet. I thought that I could handle bees myself before I saw him handle them; but when I saw him handle his bees I found that I knew nothing about it and I consider what I learned was worth \$50 to me. Mr. Harrison's apiary, all told, consisted of between 140 and 150 colonies before the fire; he lost a great many in the fire.

J. B. JEFFERIES.

We have just received another letter from Mr. A. Bechtel, Saugeen, speaking very favourably of Mr. Harrison as a bee-keeper.

For The Canadian Bee Journal.

HEDDON'S INVENTION.

I AM pleased to read on page 868-9, that Brother Armstrong has no ill will towards me although his article on those pages has an ugly, belligerent tone, I still believe him, for I do not think he worded that article, for it too plainly bears the marks of one apicultural writer who must lie awake nights and study methods by which he can injure me, but so far as I know, has succeeded in injuring no one but himself.

For two years, while experimenting with my invention, before making them public, no one said a word about half-bee spaces nor proposed any hive section containing them. I never heard the term half-bee space till I invented it in January, 1883. Although I did not and shall not patent it, not considering it worth patenting, it serves equally well with which to show up the character of those who think it is worth seizing. Let me repeat, that a patent doesn't create property in invention, but only protects it against he who would seize it. It would require an endless discussion, and an enlavelment of contra assertions, to decide whether or not it was ever heard of before I published it. But I being the first to publish it,—the first to place it where bee-keepers could get any good it may possess, justice, and *known* evidence of priority stand in my favor, and all honorable bee-keepers will so decide, I think, and act accordingly.

I am willing that any person who ever heard of that half bee space *before* I published it, should credit it to the one from whom they obtained the

idea. I must say, that I have not in my "price list," mentioned the name, nor referred to Mr. Armstrong. Every word of my price list was written before I ever heard of Mr. Armstrong's hive, and the coat he adroitly slips on, was fitted to a bee-keeper in the east, but it is well to know that it might fit more than one person.

Mr. Armstrong says I have in my possession, written protests and proofs against the novelty of my invention. I have just two letters, and no more, from men who claim to have used certain arrangements that they think antedate my patent. One of these letters is insanely abusive and without provocation, and both of these writers are evidently so ignorant regarding patent law that they have said in their letters just what would defeat their evidently concerted scheme to break down and rob me of my invention.

You will notice by Mr. Armstrong's statement that he knows I have these letters in my possession and that that statement bears evidence of concerted action or plot.

If I haven't invented anything, why all the enthusiastic testimonials I am receiving? If these good things were in use and being enjoyed by these few parties who claim them, wasn't it almost criminal on their part to keep them a secret and compel me to dig them out by study and experiment before the public could know of them and then claim them for themselves? Patent law considers all these points and the claims of these men which Mr. Armstrong calls "proofs," come about as near anticipating my invention as would the construction of a mouse trap.

Mr. Armstrong censures me because I will not accept as proof just what Prof. Cook denominates "rubbish that does not deserve a critical man's attention."

But why consume more space? I cannot see that Mr. Armstrong answers my last article at all. But if the reader can, why should I write further.

I am glad to learn that Mr. A. is not infringing my patent, am sorry that he is bound to infringe my invention which he was once good enough to ask me to set a price upon.

Mr. Kretchmer writes me that Mr. A. is infringing his inventions, and Mr. Shuck also writes me that Mr. A. is infringing his patent. I think I can afford to withdraw from this controversy as far as my rights are concerned, but our inventions and stimulus toward them are important factors and the journal that discusses them is thus benefitting its readers.

To conclude, I will say that I believe the honorable bee-keepers of America, will uphold us in our claims of my invention, (there are now several owners in the territory) and stand firmly by us if we find it a necessity to compel by law, the

few who would wrong us to "give unto Caesar the things that are Caesar's."

JAMES HEDDON.

Dowagiac, Mich.

We do not think that the JOURNAL is injured by allowing full and free discussion of important topics, so long as personalities are not descended to. It brings out points of which we would otherwise remain in ignorance. We are glad, however, to notice that there are those who originally did not feel disposed to grant to Mr. Heddon the principles he claims originated with him, but since seeing their error, come forward manfully and unsolicited and say so as Mr. E. Kretchmer, of Cobourg, Iowa, has done. In his catalogue just issued Mr. Kretchmer says:—

"When I began this catalogue, it was with the belief that the important *functions* of my "Alternating Live," which are about the same as the functions of Mr. Heddon's new patented hive, could be shown to be old, but long correspondence with Mr. H. has changed my mind with regard to these old devices anticipating his moral or patent rights to them, and as a means of promoting right and justice, I hasten to state that I now believe I was misled, and that the following functions of my alternating hive are the inventions of James Heddon, of Dowagiac, Mich., a part, or more of which are covered by his patent of Sept. 29th, 1885:

First—Constructing the brood-chamber of *movable frame* hives, in two or more horizontally divisible and *invertable* parts.

Second—That function by which the bees may be quickly shaken from the combs.

Third—The combination of a break joint honey-board with the *double* alternating brood-chamber.

Fourth—A half bee-space, on both top and bottom of a *double* brood-chamber.

I have now purchased of Mr. Heddon the right to incorporate these principles into my hive for the year 1887, and all persons purchasing these hives of me get the right to use and sell them with the hives. But, any who wish to construct others for themselves must purchase an individual right of Mr. Heddon, and if they wish to make and sell hives, containing the principles named, they must purchase of him the territory in which they wish to sell them."

Two bee-papers for the price of one. The CANADIAN BEE JOURNAL and the *Bee-Keeper's Magazine* both sent, post paid, for one year for one dollar. Send in your names.

For the Canadian Bee Journal.

INTRODUCING QUEENS.

SOMETHING NEW ABOUT THE BUSINESS.

IT is perhaps out of season to speak of introducing queens in winter, but as I have something that I wish to say upon this subject a little different from anything which I have ever read or heard of, so far as I can remember; in fact I believe that I have made a new discovery in this business, and as I could not find any time to write about it during the more busy summer months, I venture to do so now, and perhaps the best way to convey a clear understanding of the matter will be to give a brief account of the circumstances which led to the discovery of the principles involved in the facts of the case.

In the summer of 1885 I removed a couple of brown queens from their respective colonies, in order to introduce Italian queens in their places. Having no further use for those old queens I determined to experiment with them a little, and see if I could not increase my stock of knowledge somewhat, at their expense. Accordingly I went to a hive containing a strong colony of bees, with a vigorous, healthy looking young Hybrid queen inside; and placing one of those old queens upon the alighting board of this hive she walked right up to the entrance, the guards smelled of her and gave a sort of royal salute, and she went in without halting at all. I waited a while to see if any disturbance would follow but all continued quiet, not the least sign that anything unusual or unexpected had happened. I then passed on to another colony in similar condition, so far as I knew at the time, and placed the other queen on the alighting board as before. The guards rushed at her in an instant, and in an agitated manner warned her off; she walked around a while as though pondering in her mind what was the best thing to do next, and then marched up to the entrance with an air of determination to go in regardless of consequences; but the moment she entered the passageway she was seized by a number of the the guards and dragged to the outer edge of the alighting board (which was about 12 in. wide) and very significantly given to understand she must leave the premises, but she had one wing clipped and could not fly and therefore could not leave. It was really amusing to see the manoeuvring of those guards as they marched to and fro about the entrance to keep her from going into the hive. At length when I got tired of watching them I took up the queen again and went back to the colony which received the other one and put her down at the entrance, and she also

was allowed to go in unmolested; this colony then had three queens in its midst. I left them thus until next day when I opened the hive and found the three queens all alive and well; everything quiet as a summer eve; each queen on a comb by herself; thus occupying the three central combs in the hive. The two old queens had each of them laid, during the time, quite a quantity of eggs, but contrary to my expectations, the young queen had not yet become fertilized, and in this fact lay the whole secret of the mystery. Until I discovered this I could not understand why one colony should accept a strange queen so willingly, while another would indignantly refuse to receive one. I believe it is generally conceded that a queenless colony having capped queen cells in the hives will quietly accept a virgin queen if introduced soon after hatching.

From the foregoing premises I have drawn the following conclusions. 1st. When a queenless colony of bees have a queen cell all capped and finished they instinctively expect that according to the natural order of things, a virgin queen will soon appear in their midst; therefore, if one is introduced at such a time she will be kindly received, while at the same time if a laying queen should make her appearance among them, she would be looked upon as an intruder and treated accordingly.

2nd. When a colony has already got a virgin queen which is old enough to fly and might be expected to become fertilized at any time then their instinct teaches them that the next thing in the natural order of events will be a laying queen and if at this juncture, the virgin queen be removed, and a laying queen immediately run in among them, they will, I believe, invariably accept her as a matter of course, and greet her with demonstrations of joy. It will be seen that when introducing alien queens to a colony of bees conditioned as above; that everything works in harmony with the natural laws of their instinct, whilst the apiarist accomplishes his purpose by adroitly anticipating their designs, and gives them a queen of his own selection in place of the one they had without shocking their sensibilities or arousing any suspicion that their work has been interfered with. Although the odor of a fertilized queen may be a little different from an unfertilized one, yet that change of odor is just what they are looking for and therefore everything develops just according to their expectations; no disappointment and no cause for dissatisfaction, they do not recognize her as a stranger but as their own in a new stage of development.

Since I discovered this way of immediate introduction of fertile queens, I have practised and

experimented with it repeatedly and with complete success every time, until I am inclined to believe that it will prove as near infallible, when all the conditions are right, as any method yet known.

Now, friendly editor, will you please tell us whether there is, or is not, anything really new contained in this method of introducing fertile queens. Has any one else ever tried it, if so, with what result?

JOSHUA BULL.

Seymour, Wis.

We think it has been tried by many. Sometimes it has been attended by success at other times by failure. The weather, honey flow, strength and condition of the colonies have much to do with the results. Try it when the honey flow is scarce, using queens you do not value, and see how many are rejected before you get one accepted. Occasionally a colony will accept queens under almost any condition, but as the dispositions of colonies vary so much you will frequently find when you have some system that it will work in one case, while at another effort your hopes are all blasted.

SIMPLICITY IN FEEDING.

UNDER the above heading, Mr. S. Simmons, Rottingdean, Eng., the gentleman who has lately come into prominence on this side of the Atlantic, with the introduction of the "Simmons' non-swarmer system," gives a method of dry-feeding which he claims is much ahead of those ordinarily in use, inasmuch as the work of feeding is lessened very materially. We give his article as found in the *British Bee Journal* of the 13th ultimo:—

"At one time I looked upon the work of feeding in large apiaries as one of the greatest annoyances, and the necessary preparation a waste of valuable time. Syrup had to be made over a stove before it was thought possible that it could be appropriated by the bees. I was satisfied that all this labour could be avoided, and before establishing out-apiaries I determined, if possible, that it should be done. The result of careful experiments was the present system, known as 'dry-sugar feeding,' by means of dummies filled and arranged at the side of the brood-nest. Though the term applied to the new process was not exactly correct, as the sugar used (Porto Rico) is moist and soft, it is thus distinguished from syrup feeding, and appears appropriate.

Though invaluable for stimulative purposes, and in some cases to complete storage, at times it was still necessary to give syrup, when desirable, to feed rapidly, but this difficulty has been overcome by my self-acting syrup feeders. There was still, however, one other point to be overcome.

Many stocks are either neglected by their owner, or happen to run short of food before it is possible to feed in the ordinary way. Hence the use of 'candy' during winter, than which there is no more troublesome nor expensive food to make; expensive because of the great waste of time taken in its manufacture when one might be profitably employed at something far more remunerative.

It is pretty well understood by practical bee-keepers that the only suitable candy is that which always presents a moist surface to the bees, without wasting too freely, great care being required to get it just right, as, if too dry, the bees will not make much use of it until they can obtain water, while if too soft the whole will run away in waste, making everything sticky, the poor bees included, and thus doing more harm than good.

When I say that I have struck the 'happy medium,' and no more cooking is required, even for winter-feeding, or for supplementing the stores of those running short before spring opens, the importance of the following plan of giving uncooked sugar without the expense of a feeder will be acknowledged. Porto Rico sugar is of exactly the right condition to take the place of candy, if only properly applied. There is only one way that I have found it can be done without waste where the bees are admitted to the sugar from the bottom of the lump, and that is, when placed on the frames just over the cluster, and pressed down tightly.

First lay a sheet of newspaper over the frames, on this place several pounds of the above-mentioned sugar and press it down well all round. It then forms into a cake with a crust that I have known to support the weight of clustering bees and newly-built combs, after the bulk has been used in the spring, just as if it had been an inverted dish. No grains are wasted; first, because of the pressure, and then the moisture of the hive causing all to adhere closely together. No liquid appears, and yet the sugar is always in the best possible condition for use. The body of sugar adds an additional protection to the bees, and, unlike sticks of candy, the crust is left till last, forming a complete air-chamber immediately above the cluster.

A strong colony will soon open a way through the paper where it bulges down between the

frames. For a weak lot a slight tear should be made to give them a start. Instead of paper, a piece of cheese-cloth can be placed first on the frame, and would be preferable if applied in mid-winter.

It is hardly necessary to say that this sugar can be moulded to any shape to suit the formation of roof or quilting, which latter should be very warm. For slow feeding, where it is known the bees have some stores on hand, or for brood stimulation later, porous cloth only need be applied; but where the case is urgent, or more rapid feeding is necessary, place a piece of oiled cloth next above the sugar, with smooth side to the same.

In cases of emergency, where bees have been bought in spring short of food, and being in odd hives, I have placed the usual dry-feeding dummy close on top of the frames, with the slot next to, but standing across them. The hives being smaller than the 'standard,' no other feeders were at hand suitable. When covered up warm the sugar soon disappeared, and though side feeding is at times more convenient to the bee-keeper, without a doubt in cool weather, there is no place so suitable for the bees wherefrom to take their food as that immediately above the cluster.

I do not suppose every one will discontinue the preparation of bee-food by cooking, but at my own apiaries, of several hundred colonies, no time is now wasted in that manner, and I have no doubt this last application of 'dry-sugar feeding' will be welcomed by many who are now getting anxious about the condition of their stocks.'

CANADIAN COMMISSIONERS.

(Continued from last week.)

Mr. Corneil said that he wintered his bees in a small cellar, too small for his stock, because it contained only about eighty hives. He always took care to allow sufficient space to enable him to walk round the hives. He liked to inspect the inmates once a week or fortnight to see how they were getting on. It was very important, in his opinion, to maintain a uniform temperature in the cellar, which should never be lower than 40° Fahrenheit. If it went up to 50° no harm would be done. If he could keep the temperature uniform at 48° during the whole winter he would like to do so. His own cellar was too damp according to his view, although he had gone to considerable expense in order to render it suitable for wintering bees properly. However, a mistake in the works was made in the first instance which it was exceedingly difficult to rectify. He then gave a detailed explanation of the way in which his cellar had been con-

creted against dampness, and a pipe laid down in a trench for the purpose of conveying pure air to the cellar. That air was then heated in order that it should not contain more than about 70 per cent of moisture. He found, however, that the per centage of moisture in his cellar had risen to nearly ninety, which was too much. Still, the bees wintered fairly well. The reason of the failure in the working of the pipe was that it was laid partly in quicksand, which gave way, and the joints broke and let in a quantity of water. The consequence was the work would have to be done over again. Of course the air was not dry because it came over a body of water. To counteract that evil influence he had taken care to give the cellar plenty of ventilation. In wintering, he always raised the body of his hives two inches above the bottom boards, and left the intervening space perfectly open. He covered the hives with a quilt of wool made for the purpose 18 x 20. Wool was a bad conductor of heat, and a good substance for passing off moisture, which they all knew from its universal adoption in the way of clothing for human beings. He did not believe in cloth quilts, which were harmful unless their effect were counteracted by extra ventilation. He had frequently gone into his cellar and pulled aside the edges of the quilts and taken a peep at the bees, which were generally in a large mass close up against the wool, and were so nearly hibernating that they hardly stirred. Under those circumstances he had pushed in the bulb of a thermometer without causing much annoyance to the bees. They were allowed to remain in winter quarters until there was pollen and water for them to get. As to food, he did not think there was anything so good as honey. As to what honey should be used he did not think there was any great difference. The question whether honey gathered at the fall of the year was as good as that obtained in early spring had been discussed in bee-papers. He then explained another system of wintering bees common in Canada, which was to place them in a chaff bin, board up the top and sides, and fill up the spaces with chaff, taking care to give ventilation of course. With regard to moving from one location to another in order to follow successive blooms it was quite an undertaking and involved a good deal of trouble and did not often pay. He had tried, but with poor results. With regard to feeding on syrup, his bees had done well on such food, but he had a preference for natural stores. Mr. Jones spoke of fruit-blooms, but he did not think the bees gathered much from these. If they got enough to stimulate brood-rearing they did well. He knew there were some locations in which there was to be

found a large undergrowth of wild cherry, which appeared in the season of fruit-blooms, the honey from which has a very stimulating effect in the early spring. He was not fortunate enough to be in a location like that. By the 15th June the white clover commenced to give honey, and by the first days of July in his district they were ready to extract from the top story. In working for extracted honey they put ten frames in the lower story, and ten above. Of course, in Canada they worked matters in reference to bee-keeping on a much larger scale than in England. They had not so many hands, and perhaps it was for that reason they cut off more corners. Those remarks applied equally to farming work, so far as his observation in England had allowed him to judge. He then gave a full and interesting description of the way in which the business of extracting and replacing combs was conducted in the larger apiaries of Canada. He himself had three large tanks, ten inches deep, each of which would hold 1000 to 1200 pounds of honey. It was necessary to keep a large quantity of honey exposed to the air, in order that it might ripen and evaporation take place, so that it might become dense enough to pack. It was tried by the hydrometer, and never put up in any packages until it had acquired a density one-third heavier than water. He again thanked them for the cordial reception they had given him and Mr. Jones, and also for the kindness with which they had listened to his remarks (loud cheers).

Mr. Sambels said, since their last Conference they had had their great honey show in the Conservatory at South Kensington, where Herts had won the second prize in the county competition, and many of the prizes for appliances had been won by manufacturers in the county. They had also had the Ontario Honey Exhibit which had brought our Canadian friends to England, and had been of great interest to bee-keepers generally. Through the kindness of our friends, he was enabled to show them several samples of Canadian honey. He had also bought a few samples from the Herts county stall at our late show, which he felt sure was able to bear comparison for its "gold" color as well as its flavor. We had been taught by our Canadian friends, who had from 1200l. to 1300l. of John Bull's money to take home with them, a good lesson in free trade, by admitting their honey duty free, and providing cheap tin boxes, duty free also, for them to put their honey up after it was brought over, and they in return had given many thousands in this country a taste of honey, probably for the first time. We had "croaking" queens as well as croaking bees, and not a few croaking bee-keepers, who were alarmed at the

prospects of being flooded with Canadian honey, but for himself he looked forward to a larger sale of our native product through the taste thus created (applause). The speaker then exhibited a 2d., 4d., and 6d. tin box of honey, a 1 lb. and 5 lb. glass bottle, several sections of various brands and shapes, commenting on the fine finish of the latter. Also a small crate containing eight sections, explaining there were a large number of such on sale at the Ontario honey-house, and said as Mr. Jones had expressed regret before the conference began, that he had not brought a few samples with him, he had great pleasure in asking the Chairman to accept a bottle and section of Canadian honey, as well as one of our own county, that he might compare the flavor. He also explained a Dines' section crate, as well as a new one of his own, in which he had freely appropriated what he considered points worth copying in every one else's that he had seen, and illustrated Mr. Corneil's method of fixing foundation.

Mr. R. T. Andrews asked several questions of Mr. Corneil.

Mr. Corneil, in reply, said the Canadian thistle honey was quite white, and the flavor very distinctive. In the early part of his bee-keeping experience he used to take his bees out once or twice during the winter for an airing, and he found they would fly back to the same place where their hive had been kept in the summer, but he always now kept them in all the winter and never found them to select the same location, although he placed the hives quite indiscriminately.

Mr. Seager said he would not adopt the usual custom of proposing a vote of thanks to our Canadian friends, but he felt quite sure, under the circumstances, he should be best expressing the feeling, not only of this meeting, but of British bee-keepers generally, by wishing them a hearty farewell and a pleasant and prosperous voyage home.

Mr. S. Allen seconded the proposal, which was carried by acclamation.

Mr. Corneil, in returning thanks, spoke of the advantages of Canada to intending emigrants. They could boast of greater longevity, of being more healthy and stalwart, their babies were heavier, and their families more numerous, than in any European nation, twenty or twenty-four being no unusual number (Oh, oh!).

Mr. Jones said they would take home with them such a sense of the very great kindness and generosity that they had received from Englishmen, bee-keepers especially, that it would never be erased from their memories. They should be able to tell their friends at home that

the feelings expressed to them were intended not for themselves as individuals, but to the Canadian nation as such; and if any of his English friends chose to come out to Ontario, nothing would give him so much pleasure as to show them over the Colony, and do all in his power to help them to settle comfortably in their new home, and on behalf of Canada, he could guarantee them a hearty welcome.

Dr. Shelly was sure that the meeting would accord a hearty vote of thanks to the Mayor for presiding over them on this occasion. A few days previously, Mr. Cocks had stated that the only qualification he could claim for taking the chair to-night was the fact that he had studied the manners and customs of the honey-bee as set forth in the writings of the Rev. Isaac Watts. But Mr. Cocks had even better claims than that, for he was an excellent example of the human bee—presenting in this respect certain curious resemblances to, as well as differences from, his insect prototype. Thus he was, to begin with, a social animal; and it went—without saying that, despite his sex, he was a good worker. He resembled the British bee in one other point, which was, perhaps, in his case an advantage,—his tongue was not quite so long as that of the foreigners. On the other hand, he was not intimidated by smoke, nor, as the speaker had good reason to state, was he rendered at all savage by it. With regard to carbolic acid—another "quieting agent" sometimes employed by bee-keepers—he could not speak so positively, for there had, fortunately, been no occasion to experiment with it upon his worship. Lastly, the enjoyable and successful meeting which they had had that night was enough to prove that whatever Mr. Cocks set to work upon, it would never turn out "a sell." Perhaps, now-a-days, we are not quite content to take the little busy bee at Dr. Watt's valuation; but it had seldom done Englishmen a better turn than in bringing them, as it had done to-night, face to face with their brethren from over the great water—brother bee-keepers who came amongst them with no strange names, and no strange faces, urging them only to that kindly rivalry which is one of the healthiest signs exhibited by the various members of one family striving in mutual harmony for success. And it was a matter of congratulation that their meeting should have been presided over by a gentleman whom they could claim as a practical exponent of the best virtues attributed to the little insect which had been the theme of their discourse that evening.

Mr. Sambels, in seconding the proposal, said, although he was not a townsman of the Mayor, he was very pleased to see him, as chief magis-

trate of the ancient borough of Hertford, in the chair. Mr. Jones earlier in the evening had said bee-keeping was the only honest way he knew of getting a living by theft (Oh! oh!). He (Mr. Sambels) hoped the Mayor had consulted his legal adviser before he consented to preside, because all the clever devices that had been exhibited that evening were only to induce the bees to store the honey they had stolen from some other persons' flowers, as well as their owners', so that their owners might come in, on the divine right of appropriation, vulgarly called robbery, and take what the bees had stolen, so that their profession, above all others, required a suitable chairman to make it respectable.

The proposal was carried by acclamation, and the meeting separated.

From the Youth's Companion.

HONEY ANTS.

THE honey ants are found from Southern Mexico as far north as Colorado, and are easily recognized by the tall mound-like structures or nests that they erect. They are like the owl, almost entirely nocturnal, carrying on their out-door work at night, although their domestic duties under ground are probably not neglected during the day. As soon as the darkness comes on, they sally out of their subterranean cities, and wander about, climbing bushes and trees in search of the food of their choice, which curiously enough, is honey. This will occur to you as an exceptional case among ants, as they generally, perhaps, as a rule, feed upon material that can be stored up; but here where the food is liquid you would assume that it could not be laid by for a rainy day, so to speak, the simple reason that the ants have no tanks, flasks, or bottles to hold the supply, nor the ingenuity to make them. Let us not say, however, that they have not sufficient intelligence to find a substitute, as they certainly have, and we find it in the curious dessert set before us in the city of Mexico. If we examine one of these ants, we shall find that the abdomen, or rear larger portion, is protected by ten plates or bands that are movable, and as they are connected or underlaid by a very delicate membrane almost like rubber, they can be stretched apart to a wonderful degree, allowing the abdomen to assume the appearance of a balloon four or five times its normal size. The ants also have a crop that is capable of a great distention, and governed by sets of powerful muscles; in other respects they resemble ordinary ants.

Now, by some arrangement, whether by agreement taking their turn, or by force, is not known, certain ants are selected by the others

as living bottles; in other words, they are obliged to receive the supply brought in by the rest, and retain it. When the foraging ants return, they have their crops filled with honey, and proceed directly to the bottles. Placing their mouths in contact with that of the unfortunate living receptacle by contraction of the muscles mentioned, the contents of the crop are forced out and into the bottle. Ant after ant unloads in this way, until the elasticity of the recipient is tested to the utmost and it can receive or hold no more.

The insect is then absolutely helpless. The crop and abdomen have expanded until it resembles an amber-tinted sac, as we have seen, the size of a currant, the head and limbs having almost disappeared, hanging upon the side like a stem, while the other organs within the little creature are so pressed out of shape that it is with the greatest difficulty they are traced. Loaded down in this way, and surfeited with sweets, the bottles, naturally powerless, and that this is appreciated by the others is evident from an examination of their nest, when it will be found that the honey-bearers are given a separate room and there tended with the greatest of care. They are, perhaps, placed there before being filled, or carried in later; but in any case, they are found together in a separate apartment, hanging from the roof, to which they cling with their limbs and appearing like ripe fruit suspended from invisible vines.

This, then, is the pantry, or storeroom, of the honey-ants and here is kept what corresponds to the winter store of other animals. When the other ants are hungry they proceed to this room and lick off the drops of honey that by muscular contraction are forced out by the patient and never hungry living bottle.

The nests of the honey-ants are eagerly sought after by the native Mexicans, and the storehouses pillaged of the bottles that are served as delicacies by them.

SUNDRY SELECTIONS.

ABBOTT L. SWINSON.--Notwithstanding the fact that we have had more snow and cold weather this fall and winter than has been since the fall and winter of 1876-77, the 'Tar-Heel' bees were carrying in pollen to-day, for the first this season; it is from Alder tags. The Alder is our first source of pollen each spring and never fails. It throws out its tags every month in the year, except December, which are literally covered with pollen.

In looking over my bees on the 26th, I find my imported Cyprian had not laid an egg, while many of my American Albino Italians had

patches of brood and eggs as large as the palm of my hand; one colony had capped brood. Among my Golden Italians and two Cypro-Albinos, and several Albino-Syro colonies, I could not so much as find an egg. I commenced to feed sugar-syrup the 26th inst. to my 'selected colonies' to promote brood rearing, by pouring it into the cells of empty frames of comb and setting it back into the brood department, and to-day every queen so treated has begun to lay. December 11th, 1886, gave us 8 inches of snow, an unusual occurrence for this latitude, prior to Dec. 25th. January 10th, 1887, we had a 10 inch snow, the first we have had so deep since Jan. 1877. We have not had, until this fall past, a snow deeper than 4 inches, since 1877. Bees have been flying every day for last 7 days, and for past 5 days, they have been at the well getting water from 9 a.m. till after sundown each day. Glad to hear the Sr. Editor has arrived back safe.

Goldsboro, Wayne Co., N.C., Jan. 28th, 1887.

No doubt your Cyprian and other queens will commence laying as soon as they can get honey and pollen in sufficient quantity. It seems strange your talking of pollen down there while we have it from 10° to 15° below zero and plenty of snow and frost, but we prefer steady cold weather until the season opens up in the spring which usually takes place here between April 1st and May 1st. Does your willow produce honey as well as pollen every month in the year? Our willow only blooms once a year then in early spring.

CLIPPING QUEENS' WINGS.

GBAHAM S. DEWITT.—I do not like to trouble you much; however, there are a few questions I would like to ask you.

In clipping queens' wings how much of the wing do you cut off?

We cut off about two-thirds or three-fourths. Cut from the outside point of the wing, just inside the heavy part, forward towards the thorax, cut off all the inside broad part, yet leaving the outside about the full length.

BEES BAD WITH DYSENTERY.

I have a colony of bees that have got the diarrhoea quite badly. What would be the best thing to do with them, set them out of doors some warm day and let them have a flight, or let them be in the cellar until spring? Where you have a number of colonies in a cellar, should one or two get the disease, will it affect the other colonies near it?

Homowack, Ulster Co., N.Y., Dec. 27, '86.

They have got the disease most likely from having poor stores. The probabilities are that their food is very thin and watery and they are unable to keep up sufficient heat to evaporate the moisture from their bodies. They could be placed in a corner of the cellar apart from those not already affected, then take soft bricks, dry and heat them, lay them over the hives, this will cause a draft. If there is room some may be put behind the division board; continue in this way until the moisture has become absorbed in the hive, the temperature raised and their condition improved. The above method will prove beneficial, unless their stores are so bad that no amount of care can help them. As soon as the weather becomes sufficiently warm give them a flight and change their poor stores. It will not affect other colonies with it.

For the Canadian Bee Journal.

A REMONSTRANCE.

IN the last issue of the *A. B. J.*, I notice the following:—"Another bee-paper is to be started in Canada, to be called '*The Canadian Bee-Keeper*,' to be published monthly, at Brantford, Ont."

I sincerely trust this is a mistake, but if the project is really under serious consideration I hope the projectors, whoever they may be, may re-consider the matter. Instead of two or more inferior, half-supported bee journals in Canada let us have one good one, and as the *CANADIAN BEE JOURNAL* was first in the field it has prior claims upon Canadian Bee-keepers. While not for a moment questioning the *right* of anyone to start another bee paper in Canada, I do most emphatically and earnestly question the *fairness* and *prudence* of such a course. It was thought, before the *C. B. J.* was started, that there was hardly room for even one bee journal in Canada, and we who strongly urged Mr. Jones to start one did not do so without some misgivings as to the financial risk we were inducing him to take. He has invested a good deal of money in the project no doubt, and is turning out a really good and creditable paper, and I submit, under these circumstances, it is, to say the least, unfair and ungenerous to start up a rival along side of him. Take my advice friends, whoever you are, and do not do it. I could start a bee journal here in Napanee and could get large support and could advertise myself and my business well, indeed, I have been urged to start a paper, but I would cut off the fingers that hold this pen before I

would do it after urging Mr. Jones to start the C. B. J. Let us be honorable, gentlemen, especially towards each other as bee-keepers. The two papers cannot, in my opinion, thrive and succeed and let us therefore give our undivided support to the one we have and make it second to none in the world. Yours,

ALLEN PRINGLE.

Selby, Ont., Feb. 5th, 1887.

THE CANADIAN BEE JOURNAL

JONES, MACPHERSON, & Co.,

EDITORS AND PUBLISHERS,
BEEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEEETON, ONTARIO, FEBRUARY 9, 1887.

During February the discount on supplies will be 3 per cent.

Our catalogue will not be ready for a week or two yet, owing to press of work in our printing department.

We are completely sold out of No. 2 Sections and have already had to return some of the cash remitted for them. Our friends will please make a note of this.

REPLY TO MR. H. F. HUNT.

We have asked Mr. McArthur to give us in detail his plan of wintering in the Jones' Hive by packing. The system has heretofore been explained in the CANADIAN BEE JOURNAL but was there spoken of as adapted to carrying bees safely through the spring. We expect to give Mr. McArthur's reply in next issue.

BUCKWHEAT HONEY IN TORONTO.

In his last letter to us, Mr. McArthur says: "I have something encouraging for bee-keepers who produce lots of buckwheat honey. I had no idea it would 'take' in the manner it is doing and should like to get a few hundred pounds more. It is selling right well, not only among the lower classes, owing to its cheapness, but I have been able to get it on the tables of some of the highest rank in Toronto. It must, however, be pure and I will buy only by sample. My honey business is very encouraging and will take my whole time hereafter."

OUR TORONTO SUPPLY DEPOT.

From the stand which Mr. John McArthur, 845 Yonge St., took in the matter of foul brood, and from what he said at the Convention about producing honey which had been extracted from hives containing foul brood, the impression

seems to have got abroad that Mr. McArthur was in the habit of keeping foul brood honey and combs on his premises, and that for this reason it was unsafe to order supplies from our Toronto depot. We did not understand that he was in the habit of doing so, but to make assurance doubly sure, we wrote Mr. McArthur and have from him a most emphatic denial of the charges. He says: "I emphatically deny having in my possession or on my premises any foul broody honey, combs, hives, bees, or any appliances in connection therewith, and that my apiary is and always has been free from that foul disease. My belief in the old adage, "Prevention being better than cure" has led to the present controversy on the foul brood question.

When Mr. McArthur made the statement that he could produce honey containing foul brood, he did not say that he had it himself. We think it is from this statement that the impression has arisen and we take this opportunity of correcting it.

SPECIAL NOTICES.

The prices as quoted for honey in our market report are in exchange for supplies at catalogue prices.

Discounts on all supplies (as advertised in our catalogue for 1886) till March 1st, will be three per cent. We are crowded up pretty well with work in all our departments. We have busy at work no less than 34 hands, and we shall increase to about forty in another week.

Mr. H. Chapman, of Versailles, N. Y., has appointed us his Canadian agents for the sale of the Chapman honey plant. We have now on stock, ready to ship from this office, any quantity of seed that may be desired. Canadian customers will please make a note of this. Price same as Mr. Chapman's.

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 $1\frac{3}{4}$ inches. The prices we quote are, per 1,000, \$5.00; 10,000 or over, \$4.25. 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.

HONEY MARKETS.

BEEETON.

EXTRACTED. Quantities have arrived, nearly all of which has been disposed of, at about the same

prices as were paid. For A 1 clear, clover or linden, 9 cts. is paid; Mixed flavors 8 cts.; Amber colored 7 cts.; Fall honey 6 cts.; Buckwheat 6 cts. **COMB.**—Demand is thus far light, a market can at once be found for 500 to 1000 pounds of nice plump one-pound sections, 14 cts. is the best price; No. 2 12 cts. There is very little left in this country.

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.

DETROIT.

Very few sales reported. Best white comb honey, 12½ cts.; Fall white comb honey, 10 to 11; Extracted offered from 6 to 8; Beeswax firm at 23 cts.

M. H. HUNT.

Bell Branch, Jan. 10th, 1887.

NEW YORK.

Since Christmas the comb honey market has been very sluggish and sales slow, but has shown more activity the past week. Stock in dealer's hands is large and prices rule accordingly. We quote present prices as follows:—White comb, 1 lb. sections, 10 and 12c.; white comb, 2 lb. sections, 9 and 10c.; off grades, 1 and 2c. per lb. less; buckwheat, 1 lb. sections, 8 and 8½c.; buckwheat, 2 lb. sections, 7 and 7½c.; California extracted, 5 and 5½c.; buckwheat, 4 and 4½c.

McCAUL & HILDRETH BROS.

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.

HONEY OUTLOOK FOR SEASON OF '86.

The new comb honey coming in shows good quality. There was but little old comb held over, and consequently new arrivals sell well. Fancy white comb in 1 lb. sections, in paper boxes or glassed, commands 12 to 14c. and 2 lb. sections, glassed, 10 to 12c.; while lower grades of both sizes go at 8 to 11c. Dark pungent flavored Buckwheat Honey will probably be a good crop and go lower. The crop in N. Y., Pa. and Vt. is reported fair, while Ill., Iowa, Kas., Wis. and N. W. are said to have yielded well. A small quantity of Southern strained irregular Honey comes here, and sells as low as 50c. per gal. The crop there is large. Eastern Honey in barrels, sell at 5 and 6c. The California crop is reported heavy, and the 4 gal. cans (two in a case.) finds ready sale in the East. In consequence of the big crop of this splendid Cal. Honey and low freights, there have been a number of cars disposed of here already at 4-

and 5c. per lb. and much larger sales are expected in cooler weather.

PANCOAST & GRIFFITHS.

242 South Front Street, Philadelphia.

CONVENTION NOTICES.

The Freemont Progressive Bee-Keepers Association will hold their semi-annual meeting in conjunction with the Farmers' Institute at Freemont, Mich., Feb. 4th.

G. E. HILTON, Pres.

PRICES CURRENT

BEESWAX

Beeton, February 9, 1887

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 pound47c
" " " " " "	over 50 lbs.45c
" " " " " "	cut to other sizes43c
" " " " " "	over 50 lbs.46c
Section " " " "	in sheets per pound38c
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.

JOB LOT OF HIVES.—See our advertisement of a job lot of hives in another column. The D. A. JONES CO., Ltd., Beeton, Ont.

FOUNDATION MACHINE—A Dunham Mill; cost originally \$50; about one dozen cells right in centre of rolls are broken—will make splendid foundation—will sell for \$10. cash. The D. A. JONES CO., Beeton.

NOTE HEADS AND ENVELOPES.—We offer a special bargain just now. 20lb note heads with printed heading, \$1.75 per 1000. Envelopes, \$2.00 per \$1000. See advt. JONES, MACPHERSON & CO., Beeton, Ont.

ADVERTISEMENTS

Bee - Keepers' Supplies!

of all kinds kept in stock, at low rates.

"The Quinby Smoker" a Specialty.

100 stocks of bees for sale, mostly in Quinby Hives, Italians, Hybrids, and Blacks. Prices from \$4 up to \$6. Send for price list.

W. H. CLARK,

Oriskany, Oneida Co., N. Y. Successor to L. C. Root. 98-110.

ITALIAN QUEENS.

Bee Hives and Supplies.

One piece sections, crates, shipping cases, foundation extractors, honey knives, bee-feeders, wire nails and metal corners.

Please send your orders before the rush comes.

B. J. MILLER & CO.,

98-110.

Nappanee, Ind.

PRINTING

PRINTING

Supply Men, Foundation Dealers,
and Bee-Keepers,

SEND FOR ESTIMATES FOR WHATEVER
YOU REQUIRE IN THE WAY OF

CATALOGUES,

PRICE LISTS,

CIRCULARS,

LABELS,

OR GENERAL PRINTING.

A large number of cuts in stock of
which patrons have free use.

JONES, MACPHERSON & CO.,
BEETON, ONT

HEDDON HIVES !



We are the owners of the patent on this hive in Canada, and we are in a position to make and sell the hive gotten up in any shape to suit the purchaser—either in flat or nailed up.

A complete working hive consists of bottom-stand, bottom-board, entrance-blocks, two brood-cases, one honey-board, two surplus cases (in good seasons we often use three surplus cases on the hive at one time) and cover. So that if you order these hives in the flat this is just what will be sent you.

Sample hives we make up with the brood-frames wired and the surplus cases supplied with fifty-six 4 1/2 x 4 1/2 7 to the foot sections. These are designed for testing the complete working hive.

In quoting prices of brood-cases and wide-frames, surplus cases, the set-screws, brood-frames, and wide-frames with their tin separators are always included, both in flat and made

up. We quote the prices of sample hives made up, and of the various parts made up, so that should there be any portions of the hive you do not wish you can easily ascertain what deductions to make.

Sample hive, made up..... \$2 90
Add ten per cent if you wish the hive painted.

Prices Of Parts.

	made up flat.
Bottom-stand.....	12 09
Bottom-boards.....	15 11
Entrance blocks (two).....	03 03
Brood case, invertible, including set screws and frames wired when made up or punched for wiring in flat.....	60 45
Honey Board (wooden) slotted, invertible.....	10 07
Honey board, metal and wood, invertible	30 25
Surplus case, invertible, including wide frames and separators.....	60 50
Cover, half bee-space.....	15 12
Sections, full set of 28 in flat.....	15 15
Tin Separators, seven to each.....	10 10

The cost of one hive such as you would receive, in the flat, would therefore be (without honey boards of either description) \$2.15. Add the cost of whichever style of honey-board you prefer, and you get it exactly. If you do not designate either we shall always include the wooden-slotted one.

Discounts in Quantities.

For 5 hives or more, 5 per cent. ; 10 or more, 7 1/2 per cent. ; 25 or more, 10 per cent. ; 50 or more, 15 per cent. These discounts are off the prices quoted above, either nailed or in flat.

Individual Rights.

We will sell individual rights to make for one's own use, and to use the new hive or any of the special features of Mr. Heddton's invention at \$5. We do not press the sale of these rights, believing that the hives cannot be made to good advantage by anyone not having the proper appliances. We will sell however to those who wish to buy, and for the convenience of such we append a list of prices of what we would likely be called upon to furnish in any event :—

Woodscrews per 100, boiled in tallow.....	\$1 00
Tap bits for cutting threads.....	1 00
Tin Separators, per 100 proper width.....	1 50
Brood Frames per 100.....	1 00
Wide " " ".....	1 25

Heddton's 1887 Circular.

NOW READY.

ALL ABOUT THE NEW HIVE.

Canadians who wish my circular to know about the new Hive, ONLY, should send to the D. A. JONES CO., for theirs, as I have sold the patent for all the American British possessions to them, and have no more right to sell the hive in their territory than have they to sell them in the United States.

Address,

JAMES HEDDON,

DOWAGIAC, MICH.

EARLY QUEENS AND NUCLEI.

I have now on hand untested queens ready to send out by first mail. In regard to my responsibility, I would refer you to A. I. Root, with whom I received instructions in bee culture. Nuclei Colonies in shipping boxes to be sent by express. Safe arrival guaranteed.

H. ADAMS.

Sorrento, Orange Co., Fla.

98-110

THE CANADIAN BEE JOURNAL.

AND

Bee-Keepers' Magazine

Both for the price of the

CANADIAN BEE JOURNAL.

See advertisement on another page for particulars

ITALIAN QUEENS, 1887.

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 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 prices. Address,

E. BOKERMANN & WILL,

Beeswax Bleachers and Refiners. Syracuse, N.Y.

FRANK W. JONES,

BEDFORD, QUE. AGENT FOR

Pelham, Vandervort and Root Foundation Mills

Dealer in and Manufacturer of Apiarian Supplies.

BEE-KEEPERS ADVANCE.

Is a Monthly Journal of 16 Pages. 25 CENTS PER YEAR. Clubbe with the CANADIAN BEE JOURNAL for \$1.10. Sample copy sent free with our catalogue of supplies. Don't forget to send name and address on a postal to

J. B. MASON & SONS,

t.f. Mecha nics' Falls, Me.

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.

TORONTO SUPPLY DEPOT.

AT BEETON PRICES.

MR. JOHN McARTHUR,

845 Yonge Street, Toronto, Ont.

Is our authorized agent for Toronto and vicinity for all supplies manufactured by us. He will have constantly on hand a supply of staple goods such as hives, sections, foundation, knives, tins, etc., etc.

THE D. A. JONES CO., Beeton.

FOR SALE.

GROUP OF 120 AMERICAN BEE-KEEPERS' photographs, 10 of them Canadian, got up by E. O. TUTTLE, Vermont, almost all the leading bee-keepers of America in it. Supplied by R. F. Holterman from Brantford, Ont., who is the authorized agent for Canada. Price, post paid, \$1.35; size 11x14 in.

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.

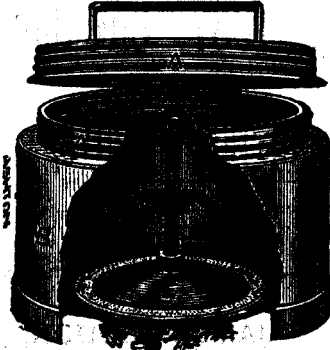
This is for fall feeding and enables you to feed 15 to 20 lbs. at once with no danger of robbing.

Made up, each.....\$ 50
" " per 25..... 10 00
In flat, each..... 35
" " per 25..... 7 50
" " " 100..... 25 00



THE D. A. JONES CO.

PAT. APPLIED FOR.



10 lb. \$5 50.

PERFECTION BEE FEEDER.

The "PERFECTION" having been thoroughly tested, and proved of inestimable value in bee culture, the undersigned, a practical apiarist, is prepared to furnish the same at reasonable prices, and the usual discount to the dealers. Among the many points in which this feeder excels all others are the following.

The supply of food can be perfectly regulated.

The food will not become rancid, nor sour, and is strained before it reaches the bees.

The same method is used in feeding as provided in nature.

The "PERFECTION FEEDER" is simple in construction, well made, readily cleansed and durable.

It is most admirably adapted to the use for which it is intended, and will give entire satisfaction to those who will give it a trial, as its merits are unquestionable.

Prices for Sample Feeder, by mail, postage paid, 4 lb. Feeders, 50cts. 6 lb. 60cts. 10 lb. 70cts.

For one dozen PERFECTION FEEDERS F.O.B., 4 lb. \$3.50, 6 lb. \$4.50
Address, **DR. E. HASTING,** New York Mills, Oneida Co., N.Y.

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 15 cents.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c., 50c., and 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 one-eighth 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-sixteenth of an inch—price, each, 30c.

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 the present we have but one line in these—26 inch 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 of good steel (Shirley and Dietrich) and can be sold by us at 50c.

The 20-inch are finer steel—same make—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 price, so that when ordering other goods you may just as well have a 1y you 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.,

BEEETON, ONT

HIVES NEW AND SECOND HAND.

We have about 500 hives all made up—some of them painted, which are just as good as new, having been used for storing combs in, a few have also been used one season, a coat of paint will make them all as nice as new. We have no room to store them, and will sell them at less than regular figures.

In lots of.....	5	15	25	50
Regular price, each..	\$1.40	\$1.35	\$1.30	\$1.30
We will sell at.....	1.00	.95	.90	.85

These prices are for the painted ones, deduct 10 per cent. for the unpainted ones. The terms will be CASH with order, and these will be nett figures.

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

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, 1910 Germantown Ave., Philadelphia
- G. B. LEWIS & CO., Watertown, Wis.
- 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. B. MASON & SONS, Mechanic Falls, Me.
- I. A. HUMASON, Vienna, O.
- C. I. 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.

THE CHAPMAN HONEY PLANT.

Having expended thousands of dollars in bringing before the people one of the most wonderful honey producing plants known in the United States, or even in the world, and testing it honestly and fairly, wish to say through your valuable JOURNAL, that the seed contains so much oil that nothing but fresh seed will grow, or by thrashing if the seed is bruised or broken it will not grow, for this reason, and by the advice of many prominent bee-keepers, I have decided to sell the limited amount of seed I have raised this season at the following prices, and will send to those who have already ordered, the amount of seed due them at this low price:

Half Ounce.....	50c
Onc Ounce.....	\$1.00
Two Ounces.....	1 50
Four Ounces.....	2 00
Half Pound.....	3 00
One Pound.....	5 00

One ounce contains from 1800 to 2100 seeds One pound of seed is sufficient for half acre if properly thinned out and reset. Write all orders plainly and given your Post Office in full

E. CHAPMAN,
Versailles, Cattaraugus Co., N. Y.

3-103

APIARIAN SUPPLIES

MANUFACTURED BY

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

Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all styles of the **Limplicity Hive**. The **FALCON Brand** hive, with movable frames, continues to receive the highest recommendations as regards its superior advantages for wintering and handling bees at all seasons. Also of **"FALCON" BRAND FOUNDATION** in a full line of **Bee-Keepers' Supplies**. **FREE** (3) per cent discount in February rated Catalogue for 1887. Free.

W. T. FALCONER.

BEE-KEEPER'S GUIDE,

OR

MANUAL OF THE APIARY

15000 SOLD SINCE 1876.

The fourteenth thousand just out. 10th thousand sold in just four months. More than 50 pages and more than 40 costly illustrations were added to the 8th edition. It has been thoroughly revised and contains the very latest in respect to bee-keeping.

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

A. J. COOK, Author & Publisher.

State Agricultural College Michigan

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.



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,

SPROUT BROOK, MONT. CO. N Y

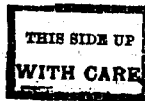
Shipping Labels.

These are for pasting on the tops of cases.

Price, per 10..50. by mail, 6c.

" " 100.25 by mail, 27

" " 1000.150 by mail, 1 60



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 do 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.

We want to place the MONTHLY in the hands of everyone interested in poultry and pet stock, and will send the paper for a full year for \$1 to all who subscribe this month. The regular price is \$1.25 per annum.

Address,

THE POULTRY MONTHLY.

P. O. Box 215, Toronto, Can.

PRIZES.

Are being offered by the Magazine to the three subscribers who obtain the largest amount of comb honey during 1887. Write for particulars.

BEE-KEEPERS' MAGAZINE,

Barrytown, N.Y.

Mention this Journal.

Queen City Oil Works

The Highest Honors and Gold Medal For Our

— PEERLESS OIL, —

Manufactured only by

SAMUEL ROGERS & CO.

Toronto