

## 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.

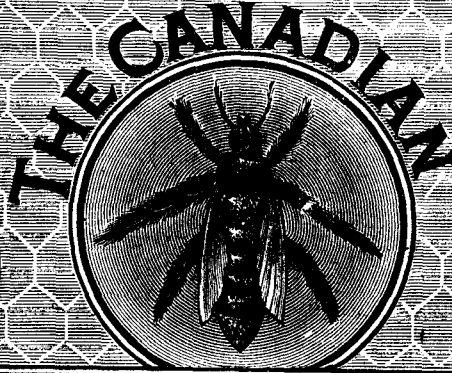
- |                                     |   |                                     |   |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/>            | Coloured covers /<br>Couverture de couleur  | <input type="checkbox"/>            | Coloured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

VOL. VI NO. 48

1887

FEBRUARY 8, '88.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

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

ADVERTISEMENTS

WE CLUB

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

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

BEE-KEEPERS' LIBRARY.

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

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

50c.

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

Price, 75c.

A. B. C. IN BEE CULTURE by A. I. Root. Price, cloth

\$1.25; paper, \$1.00.

QUINBY'S NEW BEEKEEPING, by L. C. Root,

Price in cloth, \$1.50.

BEE-KEEPERS' HANDY BOOK, by Henry Alley.

Price in cloth, \$1.50

PRODUCTION OF COMB HONEY, by W Z Hutchin-

son. Paper, price, 25c.

THE HIVE AND HONEY BEE, by Rev. L. L. Langs-

roth. Price, in cloth, \$2.00.

A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev-

W. F. Clarke. Price 25c

FOUL BROOD, ITS MANAGEMENT AND CURE

by D. A. Jones. Price, 11c. by mail; 10c. otherwise.

SUCCESS IN BEE CULTURE as practised and

advised by James Heddon—price in paper cover, 50 cents.

BEEKEEPERS' GUIDE OR MANUAL OF THE

APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.

HONEY, some reasons why it should be eaten, by

Allen Fringle. This is in the shape of a leaflet (4 pages)

for free distribution amongst prospective customers

Price, with name and address, per 1000, 3.25; per 500,

\$2.00; per 250, \$1.25; per 100, 80c. With place for name

and address left blank, per 1000, \$2.75; per 500, \$1.70; per

250, \$1.00; per 100, 50c.

SHOW CARDS.



Size 12 x 18 inches.

Each.....\$0 05

Per 10..... 0 40

These are printed

in two colors and

are useful for hanging in the stores, where your honey is placed for sale. We have also "Bees for Sale," "Apiary Supplies," and others.

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

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

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."

1st CANADIAN BEE JOURNAL will be continued to each address until otherwise ordered, and all arrears paid.

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt

American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts.

ERRORS. — We make them: so does every one, and we will cheerfully correct them if you write us. Try to write us good naturedly, but if you cannot, then write to us anyway. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

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

Subscription Price, \$1.00 per Annum Postage free for Canada and the United States; to England, Germany, etc. 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
6 lines and under.....	2.50	4.00	6.00
One inch.....	\$4.0	\$6.00	\$10.00
Two inches.....	5.50	9.00	15.00
Three inches.....	7.00	12.00	19.00
Four inches.....	9.00	15.00	25 00
Six inches.....	12.00	19.00	30 00
Eight inches.....	15.00	25.00	40 00

STRICTLY CASH IN ADVANCE

Contract advertisements may be 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.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

TO CONTRIBUTORS

Communications on any subject of interest to the Bee-keeping fraternity are always welcome, and are solicited.

Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

When sending in anything intended for the JOURNAL do not mix it up with a business communication. Use different sheets of paper. Both may, however be enclosed in the same envelope.

Reports from subscribers are always welcome. They assist greatly in making the JOURNAL interesting. If any particular system of management has contributed to your success, and you are willing that your neighbors should know it, tell them through the medium of the JOURNAL.

# TABLE OF CONTENTS.

	PAGE
An Explanation.....	933
A little afraid of his own logic.....	932
Bees, Insuring.....	935
Bee-keepers, Eastern Townships.....	937
Drones.....	934
Editorial.....	929
Honey Social, A.....	937
O.B.K.A., The.....	935
President's Address, The.....	935
Report from Muskoka.....	938
" " a 30 year bee-keeper.....	938
Sections.....	929

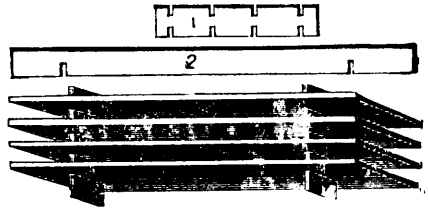
# FEEDERS.



We have quite a number of the ordinary Feeders yet in stock which we will sell at 40c each per 25, \$8.75. These cannot go by mail, so must be sent by express or freight.

## IMPROVED CANADIAN FEEDER.

This is the Feeder spoken of on page 610 of the current volume of the JOURNAL. It is arranged with the float as shown in the engraving below. Holds 12 to 15 pounds of feed, and



may be divided making two feeders if needed. The price is 50c. each, made up; per 25, \$10.00. In flat each 40c.; per \$8.75. All orders can be filled by return freight or express.



**A NEW INVENTION**  
NO BACKACHE.  
RUNS EASY

7/8 Cords of Beech have been Sawed by one man in nine hours. Hundreds have sawed 5 and 6 cords daily. "Exactly" what every Farmer and Wood Chopper wants. First order from your vicinity secures the Agency. No Duty to pay, we manufacture in Canada. Write for Illustrated Catalogue sent FREE to all. Address FOLDING SAWING MACHINE CO., 303 to 311 S. Canal St., Chicago, Ill.

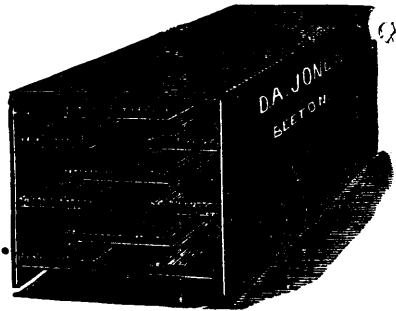
## BEES FOR SALE.

To Be Disposed Of At Once.

We have 200 colonies more than we require, and to any one who wishes to embark in the business, we will sell in lots of fifty or over, at a very low rate, and with satisfactory security we will meet our customer as to time, should it be needed. This is a splendid chance. The price will be away down low. If you have any thought of investing, at least write us for particulars.

**THE D. A. JONES CO.,**  
BEETON, MONT.

## WINTER FEEDERS.



For feeding in winter, or at any time when the weather is too cold to admit of feeding liquids.

Price each, made up.....\$0 80  
Per 10, " ".....2 75  
Price each, in flat.....20  
Per 10, " ".....1 75

These are placed above the cluster, filled with candy which is made by taking pulverized or granulated sugar, and stirring it into honey nicely warmed up, until the latter will not hold any more in solution. Allow the mass to stand till both are thoroughly mixed. Then place in Feeders and set over frames, packing around nicely to keep in the heat!

**THE D. A. JONES CO., LTD.**  
BEETON.

# HONEY WANTED!

We will take all the No. 1 EXTRACTED HONEY that is offered us at

**10c. PER POUND**

In exchange for supplies at our Catalogue prices. The honey is to be delivered at our own station, charges paid, but where it is sent to us in our own style of sixty pound tins we will allow 30 cents each for them or we will return them to the shipper at his expense. We cannot undertake to pay for any other style of package, though we will be agreeable to return them when empty.

For No. 2—off color— we will pay 9 cents per pound, same conditions as above.

For No. 3—Buckwheat and unsaleable grades for table consumption—we cannot offer more than 6 cents, as above.

Samples had better be sent us in all cases. They can be sent us safely, in small phials, which must be packed in wool or batting and put in a pasteboard box of suitable size.

For prices where supplies are not wanted, write us.

If you are satisfied that your honey will rank No. 1, you can send it along without sending sample.

Always send us an invoice of the weight and number of packages and put your name on every package.

Where it is not convenient for you to prepay the freight, we can pay it at this end and charge the amount on account.

The D. A. JONES CO., Ltd., Beeton, Ont.

IF

YOU ARE A SUBSCRIBER

—TO THE—

CANADIAN BEE JOURNAL

THIS OFFER WILL INTEREST YOU.

This Special Offer is made to *Subscribers* of the CANADIAN BEE JOURNAL.

To *Every Subscriber* who will forward to us the name of a *new* subscriber, accompanied by \$1.00, before April 1st, we will send FREE a copy of Rev. W. F. Clarke's "Bird's Eye View of Bee-Keeping," price 25 cents, or W. Z. Hutchinson's "Production of Comb Honey," price 25 cts.

To those sending us the names of two *new* subscribers, accompanied by \$2.00, we will send FREE a copy of James Heddon's "Success in Bee Culture," price 50 cents.

To those sending us three *new* names, with \$3.00, we will send Dr. C. C. Miller's "A Year among the Bees," price 75 cents.

To those sending us four *new* names and \$4.00, we will send A. I. Root's "A. B. C. in Bee Culture," paper, price \$1.00.

To those sending us five *new* names and \$5.00, we will send either Prof. Cook's "Bee-keepers' Guide," cloth, or Root's "A. B. C. in Bee Culture," cloth; price, each \$1.25

This offer is only to subscribers. Should anyone not at present a subscriber, wish to avail themselves of the offer, \$1.00 extra for their own subscription will make them eligible.

To all subscribers who send us ten *new* names and \$10.00, we will send FREE, Jones' No. 1 Wax Extractor, price \$4.00.

We will send sample copies for use in canvassing, on application.

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



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

VOL. III. No. 46

BEETON, ONT FEB. 8, 1888.

WHOLE No. 150

## EDITORIAL

IN going through a mass of old correspondence of some years ago, we found a letter from the late Honorable Lewis Wallbridge, Chief Justice of Manitoba, enclosing one from the then Secretary of the Department of Agriculture, George Buckland, Esq., both of which related to the application then before the Provincial Legislature for the incorporation of the Bee-keepers' Association. The Hon. S. C. Wood was at that time the Minister of that Department, and the letter from his Secretary sets forth that he sees "no objection whatever to such action and thinks it might be done by recognising the Society in an addendum to the Agriculture and Arts Act *without* introducing a condition for a legislative grant." But this latter was just what the then O.B.K.A. was most in need of, and in the absence of a promise of the grant they decided to remain as they were,—a purely voluntary body, without legal powers or status. It will, therefore, be seen, that while "Incorporation" is a thing of but recent date, it might have been obtained as far back as 1881, when the first application was made. This will be an interesting item to many of the newer members of the Association.

We offer Vol. 1, nicely bound in cloth, Vol. 2 unbound, and Vol. 3, now running, all for \$2.75. Who wants them? t f.

## SECTIONS.

OPEN ON TWO SIDES OR OPEN ALL AROUND.

IN *Gleanings*, page 25, the question is asked "Are sections open on all sides preferable to those open on top and bottom?" Messrs. Dadant & Son answer, 'Yes.' Mr. George Grimm, 'No.' Now, why the difference in opinion? No doubt this difference is largely due to the system practised in taking comb honey. One who uses the Heddon super or similar, where there are wooden partitions between the rows of sections for section support, preventing the bees passing from one row of sections to another, would not be so apt to see the advantage of the double slotted, and we do not think that anyone using them in such a way as to prevent the bees from utilizing these slots could be benefitted very much by their use. We are aware of the fact that many who use them have been accustomed to using a particular kind of case for sections for a long time, and do not feel desirous of changing. Such are likely to be prejudiced in favor of their particular system, but this question of side openings is one, we think, which should be treated in a broader sense. We are convinced that only those who have tested them thoroughly and adapted their supers and management to their constructions could see all the advantages to be gained from their use. We notice on page 42 of *Gleanings* a very valuable article from our friend Oliver Foster, and as it con-

tains many valuable points, we deem it in the interest of bee-keepers to give the article in full and also friend Root's comments :

On page 929 Dr. Miller speaks of the difficulty in getting bees to build uniformly on both sides of the foundation in sections, and as he leaves the problem unsolved, and invites suggestions from others, I will offer a few.

The Dr. thinks he sees the cause in their proneness, when honey is scarce, to continue storing in combs or cells already started. He also hits at two other causes—too large starters, and too few bees, but perhaps these last are conditions to be overcome rather than to be removed. I will suggest another cause, which I think plays an important part ; imperfect communications between the sections. Bees act upon the principle that "in union there is strength." Especially is this true in comb building. Like a wise general they are very cautious about dividing their forces without having a direct communication with the main body. So they do not begin work indiscriminately in different parts of the super, but extend their combs from one common centre. As an illustration, take a nucleus occupying the central part of two combs. Place brood frames filled with foundation at the side of comb. The cluster of bees will occupy the central part of the space between the first sheet of foundation and the comb, but perhaps will not extend to the edge of the sheet at any point. They may draw out and fill the cells on the side next to them, but they will never pass into the next space to work the other side until the cluster expands to some point where they can pass through or around the sheet, without leaving the cluster. Now, if a hole is made through the centre of the sheet they will not hesitate to occupy and work the other side. Other conditions being the same, the more direct the communication with the main cluster, the sooner will the other side be occupied and worked.

If the nucleus could be so arranged that work would progress in the direction of the combs instead of across them, there would be a great advantage, as there would then be no inducement for the bees to favor one side. Fortunately we can arrange our section boxes in this way.

By using open end sections and by getting the bees started in one "cross row," by using empty comb in that row the work will progress from this row to the ends of the case in the most natural way. Since adopting this method I have had no trouble at all from one-sided sections.

Several years ago I used 5,000 sections with openings so narrow that bees could not pass between the outside row and the side of the case. I now make the slots one-quarter of an inch between two sections. Some of these outside sections would be filled and sealed on the inside, but there would not be a cell on the other side. In fact, the side walls of the foundation would often be all removed by the bees, leaving the septum scraped smooth and thin. The other sections in the case would be well filled. The foundation used was made on the Given press, running about ten square feet to the pound. The sheets were cut  $4\frac{1}{2} \times 4\frac{1}{2}$ , and were fastened to the

sections by pressure, on all four sides. The corners of the sheets were first clipped off enough to avoid wrinkling. One corner was cut away enough to leave a small passage for the bees. This opening was the only one leading to the outer side of these outside sections, and I am satisfied that isolation was the only cause of their not being filled on that side. As the foundation was securely fastened to all sides of the section, there was no bending to one side, such as Dr. Miller mentions. I have found, with him, that starters one and one-half inches wide or less will give straighter combs, and of more uniform thickness, than full-sized sheets. The reason seems apparent to me. The bees on the opposite sides can communicate more freely with each other, and thus avoid misunderstandings, for how are the bees on one side of a large sheet to know how deep are the cells on the opposite side ?

#### WHY COMBS ARE SOMETIMES BUILT BETWEEN THE STARTERS.

I have not had experience in this, and may be mistaken, but I am inclined to think the trouble comes about in this way. When honey is coming in rapidly, the few starters that are found within the limits of the cluster can not be drawn out fast enough to receive all the honey. More wax-workers must be employed than can work to advantage on the foundation, so other combs are started between, but when honey comes in slowly, this extra comb-building force is unnecessary, and when a limited comb-building force is employed, it seems necessary for them to confine that force to a limited surface, according to comb-building economy, hence an occasional neglected side. My suggestions to avoid "one-sided" comb honey may be summed up as follows: 1. Use open-end sections, to allow comb-building to progress naturally in the directions the combs run. 2. Have direct communication between both sides of each section and the brood chamber below. 3. Let there be free passage between the outside rows of sections and the sides of the case. 4. Use clean white comb in all of the sections in one of the central rows running across the case from side to side. The observance of these points will enable us to produce "well-balanced" comb honey ; at least, that is according to the experience of

OLIVER FOSTER, 270, 250.

Mt. Vernon, Iowa.

You are right friend Foster in making the slots one quarter of an inch deep. Unless ordered otherwise we always make them deep enough so when separators aroused the bees have a passage on either side.—Ed, *Gleanings*.

One point you make about the bees working in the same direction as the comb without a partition down through the supers to prevent them from doing so is a most excellent one. Now in the matter of sealing up the sections a thorough test has fully convinced us that the bees can and will seal the honey tighter, stronger and more perfectly to the edge of the section

when they have facilities for so doing, than when the edge of the wood is cut away down even with the sealed honey, as a bee seems to be able to move its body in any position which is necessary in order to facilitate its work, and it also seems to fill out the corners much better, leaving fewer pop holes, which adds much to the appearance of the sections and gives them greater strength in shipping. Some may fancy the deep slots objectionable, when separators are not used, but they do not seem to be. In such cases the sealed honey in the sections is slightly higher than the slots. It seems to add to their beauty as the sealing is also done on the edge of the sections. When the sections are set side by side. By looking through between them a slight view of the honey may be had from the end, and this forms a contrast with the plain "all wood" end. We have also found the combs to be much straighter and with more even surface. Bees naturally dislike to bulge their combs, thus filling up and preventing their free passage amongst them and by enabling the bees to pass over all the sections with as much freedom as they do over brood combs, they have many advantages. Brood combs are not bulged out here and there, preventing the free passage of the bees to all parts of the hive. A small projection of wood in the corner of the sections which keeps them properly spaced when crowded closely together appears to be no disadvantage. Now for the matter of ventilation, or in other words, an opportunity for the bees to carry on their ventilating or ripening system. Who has not carefully watched the bees driving in a current of air by fanning their wings at the entrance while others inside take up the motion, thus ventilating the hive? When the sections are not slotted on the side this system of ventilating cannot be carried on so successfully. Then again the honey next to the outside, or in the outside rows of sections is not as well ripened as that in the centre, but when a free current can be passed by the bees to all parts of the super, and the ordinary system of ripening honey and ventilating be not interfered with by cross partitions the honey is much better ripened, the sections more uniform, and what is a very important matter, especially in damp cli-

mates, and one that we noticed while at the Colonial Exhibition was that the honey is less liable to sweat. The best ripened honey sweats the least. We could not help noticing the marked difference in the samples of honey from different producers. We had some which apparently had been tiered up and the bees given more room than they should have had. By cutting into the capping we found the honey quite thin although it looked nice at first, and did not show its inferiority until the weather began to get cool and damp. This honey changed its appearance very rapidly, in fact the caps would even burst and the honey commence to leak giving it a very bad appearance and almost preventing its sale, while the thoroughly ripened honey would only show a cell here and there. We have made some tests in regard to well or properly ripened honey. On cutting the capping and dipping into the cells for honey it would appear so rich, thick and well ripened that you would have to twist it on the point of the knife, while some would run out of the cells and leak down. Of course the difference in the kind of honey has something to do with this. Heather honey, for instance, can be cut without the honey running at all. We find that by tiering up section cases high and giving the bees more room than they can conveniently occupy by taking the hygrometer (one of the best instruments made for testing the humidity of the atmosphere) that it will indicate a very much drier atmosphere down next to the brood chamber or in brood chamber than in the top super and this humidity in top super depends largely on system of ventilation. If the lid is moderately tight preventing the full escape of moisture it will be found exceedingly damp, and mark a greater difference in the humidity between brood chamber and top super. When the weather is cold especially on cold nights the difference is greater, and also when the honey is coming in rapidly in warm weather and more evaporation going is this marked difference notable. We have thought that a super on top of the sections with a very porous cloth and a little chaff on top to pass the moisture off more rapidly and easily might assist in the ripening process.



For the Canadian Bee Journal

### A LITTLE AFRAID OF HIS OWN LOGIC.

IN a lecture on the anatomy of the honey bee lately, Prof. Cook said, in speaking of the glandular system: "One pair of glands furnishes the saliva another the food for the larvæ. Drones do not have this gland, and it is only rudimentary in the queen, which shows that she once nursed the larvæ as the queen bumble-bee now does in the spring. The change that has taken place in the honey-bee in this respect, is another proof of the correctness of the evolution theory."

Mrs. M. B. Chaddock, in a late number of the *A. B. J.*, hauls the professor over the coals on this evolution theory in a manner at least lively if not logical and convincing. She tells him "there is no evolution about it," which of course, ought to settle the question. That is about the way such questions are settled by non-scientific people. That many excellent people, like Mrs. C., should have a strong aversion to a theory which clashes with their early education and their preconceived opinions, is perfectly natural, and the thing is as common as it is natural. And the arguments that these good people often use to dispose of a distasteful doctrine are often as ingenious as they are peculiar. Mrs. C. bravely argues the question in her own way and to her own satisfaction, and then triumphantly asks the professor some crushing questions. Friend Newman then adds a note asking the professor to "kindly reply to these queries." To say that I was anxious, indeed, impatient, to see how the professor would get out of the bad box he was in, is not saying too much. We had not long to wait. In the next number he comes down with his answer smiling. It is before me, but I am disappointed. True, it is courteous, conciliatory, almost apologetic, but—but, is it strictly scientific? Now, Friend Cook, I am quite willing to admit that it is an awkward—a very awkward—thing to get into an altercation with a lady on a question so abstruse—a question, scientific but unpopular—that I admit; but the man of science owes the duty of unflinching firmness to his readers and to the world, and that duty is to steadfastly stand by his colors, to stand by the conclusions of science whether they be popular or unpopular, whether they agree with the notions and prejudices of certain people or not, and whether they are attacked by a lady polemic or a male combatant.

After kindly assuring the professor that what he considers a proof of evolution is no proof at all—that "there is no evolution about it"—Mrs. Chaddock asks the professor, among other questions, the following: "Do rudimentary glands

prove that animals possessing them ever used them for the same purpose that the glands proper are used for now? \* \* \* And do the rudimentary mammary glands in man prove that our baboon ancestors drew nourishment from the male and female parent just as it happened—without any distinction of sex?" Prof. Cook replies "that rudimentary organs are in themselves conclusive proof that they originated from a useful condition of the same organs, is surely disproved by Mrs. Chaddock's happy illustrations." I have the presumption to object to this answer as being not strictly scientific—as involving an unworthy concession to popular prejudice. Of the almost numberless rudimentary structures to be found throughout the animal and vegetable kingdoms, such as eyes, legs, lungs, mammary glands, muscles, teeth, wings, pistils, stamens, etc., every biologist knows, and Prof. Cook knows, that a large proportion are the degenerated *remains* or *rudiments* of organs once fully developed and having full functional activity, and that these rudimentary organs, many of them, do in themselves, carry the proof "that they originated from a useful condition of the same organs." Many of these structures, no doubt, originated through inheritance, but the fact above stated remains no less true.

As pertinent to Mrs. Chaddock's last question, I quote here from the greatest naturalist—living or dead—that the world has ever produced, whose remains now rest in, and honor, that great repository of the distinguished dead, Westminster Abbey. In "The Descent of Man," vol. I, page 30, Charles Darwin says: "The reproductive system offers various rudimentary structures. \* \* \* We are not here concerned with a vestige of a part which does not belong to the species in an efficient state, but with a part which is always present and efficient in the one sex, being represented in the other by a mere rudiment. Nevertheless the occurrence of such rudiments is as difficult to explain on the belief of the separate creation of each species as in the foregoing cases. \* \* \* It is well known that in the males of all mammals, including man, rudimentary mammæ exist. These, in several instances, have become well developed, and have yielded a copious supply of milk. Their essential identity in the two sexes is likewise shown by their occasional sympathetic enlargement in both during an attack of the measles."

In the process of evolution and development there are numerous examples of organs and structures degenerated through long ages of disuse, into mere rudiments of what were at some period in the past active, fully developed organs. In some cattle we find small, dangling horns,

and in some sheep rudimentary ears. The bo-constrictor has little bones under the skin towards the tail, which have no present use, as they are the remains of hind legs and a pelvis. In the case of a certain worm (*Anguis*) we find a set of shoulder bones in the body, but no legs attached to them. Certain whales and fishes have useless bones in the hinder parts of their bodies, which are evidently the remains of hind legs.

Amidst the manifold and wonderful changes which have been wrought in the animal and vegetable kingdoms by the processes of development and evolution, working from the lower to the higher—from the simpler to the complex—our beautiful and industrious little bees have come in for their share.

Prof. Cook is right, of course, about the rudimentary gland of the queen bee; every competent authority will sustain him; but he is hereby respectfully admonished to have the courage of his opinions and stand fast, even in the presence of belligerent ladies.

ALLEN PRINGLE.

Selby, Ont., Jan. 30th, 1888.

For the Canadian Bee Journal.

### AN EXPLANATION.

REGRET that I am unable to write anything on the subject of "Hives, frames, etc." without offending Brother Heddon. I wish to explain that I was once a practical mechanic, and am something of an expert with edge tools to this day. I manufacture my own hives, and have indulged in the luxury of "inventing" hives, frames, cases, etc. Some of these inventions have been found wanting when subjected to practical test, while others have been of greater value to me, and to others to whom they were freely given. My slotted top bar frames have been received with much satisfaction by those who have tried them and made report to me. Section cases and store comb cases work with marvellous ease and rapidity over these novel frames. They give the most complete "break" over the upward passways known to bee hive construction, and this without any horizontal division boards to be studded fast to the top bars of the frames. My cylindrical sun wax extractor, which I gave to the public last year, has loaded me with thanks from many bee-keepers. My shallow frame tiering cases invented by me in 1879 for taking honey from the comb with the honey extractor. My section case in which the sections are held firmly in a central position in the case by means of tin supports; my improved section foundation fastener; my wire cone and trap door bee

escapes, etc., etc., have all been offered to those who wish to use them, free of charge. Mr. Heddon has also been at work to improve hives, etc., but he has covered every step he has taken with "letters patent," and many of us believe that he is claiming "royalty" on some things that are not his by right of original invention. I do not disguise the fact that I oppose patents on bee hives. It is impossible to patent a beehive with all its essential parts, under the present condition of things, without imposing on your brother bee-keepers. For this cause "patent bee gums" are justly odious to a greater number of the bee fraternity. Mr. Heddon says that I "echo" his "ideas" as to the best way to use "extracting (?) supers." Well the "echo" has come down through all the years since 1879, when I commenced my tiering case system, which was before I recognised Mr. H. from other contributors to the bee periodicals. Since then I have gathered some very good ideas from Mr. H.'s articles, which I presume I have paid back in the same way. But I think that I can show in "What and How," conducted by Mr. H. in the *American Bee Journal* some years ago, that he opposed my shallow case tiering system, the same thing he now says I "echo" from him. He says that I "echo" his superior wisdom in regard to the true size of the standard L. frame. How could Brother Heddon know this to be a fact? The first movable frame hive I ever owned had the credit of coming from Mr. Langstroth's shops, and the frames in that hive were "seventeen and three-eighths by nine and one-eighth," (17 $\frac{3}{8}$ x9 $\frac{1}{8}$ ). That hive was used as a pattern from which all my hives were made, and this dates back of my knowledge of the existence of James Heddon. It is true that Mr. H. tried to set the public right as to the true size of the standard L. frame, through the *American Bee Journal*, several years ago. It was to his interest to do so, as he was a supply dealer and was offering the standard L for sale. Still he had my thanks for his efforts though I had no money interest in the matter. But did he succeed in "settling" the matter in the *American Bee Journal*? Let page 8, current volume of the *A.B.J.* answer for him as to whether the editor of that paper is "settled." In his answer (page 8) to A. C. Waldon, the editor says: "The size of the standard Langstroth frame is 9 $\frac{3}{8}$ x17 $\frac{3}{8}$  inches outside measure." Mr. Heddon would be sure of my gratitude if he would make another effort to "settle" this vexed question so that I would know what sort of frames I was to get when I buy a few colonies of bees in "Langstroth hives." Now, Brother H., because a few of your friends honestly believe that your "late invention" is *new*

because it *was new to them*, is that any logical reason that it was *new to me*? When you first made your "late invention" public, you wrote to me concerning it, and I replied to you in substance that my shallow tiering cases were practically the same as what you claim as an invention of your own. From that time you have treated me as your enemy, and have spared no pains in your efforts to injure my good name by means of your direct attacks, and by setting a parcel of inexperienced "students" to barking at me. But I am here yet, with the courage to speak the truth as it is "written in the land mark." You are simply mistaken when you suppose that I want to injure you, I am not a supply dealer and I have nothing to lose or gain whether your "patent bee gum" succeeds or fails. Your charge of "unchristian" conduct on my part, if true, would be a rebuke, the more keenly felt because of the source from whence it came. I wish I was able to thank Mr. Heddon for calling my attention to this matter of "christianlike" conduct. At any rate I shall try to profit by it in the future.

G. W. DEMAREE.

Christiansburg, Ky.

For the Canadian Bee Journal.

### DRONES.

AT WHAT AGE ARE DRONE BEES DISPOSED TO MATE.

ON page of this journal for 1885, I published some observations showing that under conditions apparently quite favorable a drone crept out of its cell in about 24 days and 8½ hours after the queen had laid an egg there. After nearly two years of prostration from severe head trouble, grateful to Him who has restored my health, and with kind greetings to the bee-keeping fraternity, I continue the record of observations then made:

August 13, 1885—Drones fully two days old can only make short, flying leaps.

August 14—When three days old, if tossed up into the air, they fly well. One of this age kept out of the hive half an hour, eagerly licked up some thin honey.

August 27—I gave some drones just hatched in a good colony to a strong nucleus.

August 30—At two p.m., with the thermometer indicating 80°, four drones took wing. One coming just outside, discharged a whitish, cream-like mass, quite unlike the fæces of the common bee, which was eagerly licked up by the workers! Another, caught before it took wing, discharged a clot of a somewhat yellower color. Evidently drones cannot retain their fæces as long as workers. Some provision would there-

fore seem to be needed against a colony taking harm, when the cleansing flight of the drones is unreasonably delayed. As no drone was gone more than five minutes, none had left to mate.

September 1 and 2—The weather was unfavorable, and only a few drones took wing, but not to mate.

September 3—The temperature was 76° at 2 p.m., and the weather fair, with a gentle breeze. Of the many drones that flew, some returned in less than five minutes, most in ten minutes, and a few in fifteen minutes. I think that not one sought to mate, for a drone, unsuccessful in finding a queen, will not come home until his honey-sac is nearly empty, which usually happens in about half an hour.

From all the observations made at this time, I conclude that drones cannot be relied upon for sexual duty, until they are at least eight days old and that most of them are not serviceable quite so young. The drone having no special office inside the hive, it is wisely ordained that it should seek to mate at about half the age a worker seeks for outside duties.

September 15—The temperature was 60° to 67°, and the weather was cloudless. At 1 p.m. drones were in full flight. I put a Jones' perforated zinc guard on that strong nucleus, to be able more easily to catch the returning drones. The most of them evidently flew to mate; the last two were gone 51 minutes. I caught them all; they filled two large queen cages. After most of them had been confined over half an hour, I placed the open cages more than a foot from the hive-entrance. To my surprise many of them unable to take wing, crawled to "the flight hole," a truly woe-begone set of beggars—impatient, nay importunate to be fed; and the workers were all eagerness to supply their wants! One, too far gone to crawl or even to beg, on having his proboscis wetted with thin syrup, though at first barely able to take it, soon grew strong enough to fly. From numerous experiments made at this time, it seems that if drones are kept from feeding only half an hour after returning from a wedding-trip, they become too weak to fly.

Catching, on the same day, some drones which were being worried by a strong colony, their honey-sacs were found to be well-filled. It is easy to see how soon a drone must succumb, if the bees merely prevent it from eating. I believe that more perish in this way than by any actual violence done them by the workers.

I hope to be able to continue this subject in a future number.

REV. L. L. LANGSTROTH.

Dayton, O., Jan. 10, 1888.

For the Canadian Bee Journal.

**THE O.B.K.A.**

**THE AFFILIATING OF LOCAL ASSOCIATIONS.**

**D**OW that our organisation is so far perfected that counties or districts may organise and attach themselves to the Central Association by affiliation—forms for which may be had from the Secretary,—it is to be hoped that in a goodly number, if not in all the districts local associations will be organised and affiliate themselves with the parental Society. It will be seen that the By-laws provide for assistance to such local associations out of the funds of the Central Association. It will be to the interest of every district in the Province to form itself into a local organised body and take advantage of what may be going in the way of assistance. To this end I would suggest that in every district in which no association exists, the Divisional Director call his brethren together at some central point for the purpose of organising when other matters of interest to themselves may be dealt with as well. It will be remembered that there must be at least five members of the O.B.K.A. in every local society before it can affiliate, but this should be no barrier in the way, as there are few, if any, districts in the province in which five such members are not to be found. After these five as many of the local members as please may or may not join the parent Society, and the Local Associations may make such by-laws as they please to regulate and govern their own proceedings. They may also make the membership fee of their own society as large or as small as they wish. Now is the time to organise, as spring will be on us in a little while with its accompanying duties.

R. MCKNIGHT.

Owen Sound, Ont.

For the Canadian Bee Journal.

**INSURING BEES, ETC.**

**R**Eference to insuring bees when in a cellar or other repository as mentioned by Mr. Couse in the C.B.J., of Jan. 18th, I would say that I have mine insured on the three year's plan, the same as my dwelling is insured. It is taken at the same risk as the house, viz., one dollar for every \$100 insured, which is equal to 33½ per year, which I think is very reasonable. Of course the rate is governed by the building they are in, and its location, whether isolated or not. I understand that it would cost as much for five months as for a whole year, and as I have at all times some bee supplies, honey or wax, either in the cellar or garget, I think I may just as well have these always insured. The policy need not state what part of the house the

contents insured are in, as it may so happen that you have a ton or so of honey in some part of the building, which would then be protected by the insurance. The amount of insurance need not more than cover what you would like on the bees, for as a rule when the bees are in, the honey and other supplies would be out, and *vice versa*. I would say the best Insurance Co. is the Western and the agent is R. Cunningham, of Guelph, to whom due credit must be given for securing a low rate and specifying so particularly the articles insured. I cannot speak too highly of Mr. Cunningham as an insurance agent. My policy reads, "On bees in hives, crates, cases, frames, honey, apiarian supplies, and bees-wax." I think that is comprehensive enough although necessary, for we must remember if we only insured the bees it would not include the hives they are in, the frames in the hive, or the honey contained therein.

G. A. DEADMAN.

Brussels, Ont., Jan. 27th, 1888.

For the Canadian Bee Journal.

**THE PRESIDENT'S ADDRESS.**

**T**HE reports of the recent annual meeting of the Association held at Woodstock so far given in the two papers devoted to bee-keeping, will have supplied their readers with pretty full information respecting the work done there. I was unable to reach Woodstock until the second session of the Convention was well advanced, and therefore know little of what was done up till that time, except what I find in these published reports. After my arrival the greater part of the time was occupied in assisting to perfect the organisation of the Association under the new condition of things.

Before I reached the hall several papers were read and commented on, among these may be mentioned Mr. Malcolm's on "The Production of Extracted Honey," Mr. J. B. Hall's on "The Production of Comb Honey," and Mr. Pringle's on, "Ought Everybody to Keep Bees." Each of these would appear to have elicited more or less discussion. These were followed by "The President's Address," which seems to have passed without a word of comment. It is true there is little in it beyond what was known and commented on a year ago. But in one of its closing paragraphs he introduces a subject which is not devoid of interest to all of us. Upon this subject the now ex-President appears to have received new light. I purpose doing now—what was not done at the meeting—making a few observations on this paragraph. Before doing so I shall quote it, for I think it is worth repeating: "It will be remembered that a year ago I spoke

encouragingly of largely increasing the production of honey in Canada, but when all the facts bearing upon the case to date are put together and weighed and balanced up, they force upon me the opinion (and I want that opinion to go upon record) that the British markets are virtually lost to us at paying prices, or even prices at which a man can make a decent living." In this the writer tells us that he has formed an "opinion" on the subject, this opinion he tells us was arrived at after deliberately weighing and balancing all the facts and circumstances connected with the case. This is the way all judicial minds arrive at conclusions. Having formed his opinion after the orthodox fashion, he is so convinced of its soundness, that he is anxious that it go "upon record." Having given us his opinion we might reasonably enough expect that he would take us into his confidence and supply us with some of "the facts and circumstances" that enabled him to arrive at it. One would think if he is so anxious "to do his duty to you all and to himself as well," he would have "summed up" and given his reasons. But not so. We are left to conjecture what these are.

If this paragraph means anything it means this, that "a year ago" its author was convinced that there existed an outlet in the British markets for any quantity of Canadian honey "at paying prices," but that since then he has "weighed and balanced" the facts and is now satisfied that because of something that has happened in the meantime this market is *lost* to the Canadian bee-keeper. It cannot have taken the ex-President a whole year to confirm himself in the belief he now holds and expresses, for your readers will know that throughout a goodly part of the year he strenuously advocated the expenditure of the Association's funds in sending a man to England with our honey. While doing this he must have been impressed with the belief that even this year there exists a market in Britain, and that, too, at paying prices, especially if entrusted to the man, but alas the golden opportunity is gone and the British markets forever *lost* to us. The above I take to be about Mr. Pettit's opinion on this matter. I wish to address a few words to your readers on this subject, because I think my opinion quite as good as Mr. Pettit's, and because he has seen fit to give his in an official capacity and with all the emphasis an official record of it adds. This being the case I say in the words of the address, "It is my duty to you all, and to myself as well," to say that in the light of my observation and judgment nothing has transpired this year that has *lost* the British markets to the Canadian honey producer, nor in any way affected it prejudicial-

ly. It must be obvious to everyone who knows anything at all about the matter that Ontario honey, and Ontario as a honey producing country, are better known in Britain to-day than they ever were before. Scarcely an issue of its bee periodicals leave the press now without some reference being made to us or our products, whereas two years ago it was scarcely known there that we existed. Has the fact that we and ours have become better known lessened our chances of success? I do not like to take this view of it.

The reckless policy of hurrying a man off to England charged with the sale of our honey at the expense of the Association was, and is to my mind, a suicidal policy, and one that can only result in disappointment and loss. So long as we know that the prices here are as good as they are there, and so long as we can effect sales here as readily as we can there, it would be folly to take from our pockets the money necessary to pay freight, commission and all attendant expenses, to say nothing of the possibility of being left unsold for an indefinite time. Your readers know that I have not encouraged them to do this. I know better than to be carried away with our success at the Colonial. The conditions under which we found ourselves there were altogether exceptional. We had upwards of 40,000 people daily within the enclosure to secure our customers from. We had the advantage of what was known as the "Colonial craze," when almost anything Colonial found ready purchasers at fancy prices from among the crowd of curiosity hunters present, but just as soon as the exhibition closed the craze died. Thereafter Colonial goods found purchasers only on their merits and hereafter Canadian honey must come into competition with American honey and the native product. Until the preference for Canadian honey takes the place of that which the English article now enjoys, we cannot hope to receive better, or even as good prices as English honey is selling at and everyone knows the conservative character of the English people and their preference for things English. In honey they make no exception to the rule. And everyone knows, who knows anything of the matter, that the wholesale prices of honey are no better in England this year than they are in Canada, nor were they any better last year. How then can we have *lost* what we never had? I have said that the English people are intensely English, and have a high opinion of that which is English. But they are not blind to superior merits in that which pertains to other countries — when such merits exist. Our honey will only command a better price in the English market

than these when the people become convinced that it is superior to their own. What reason have we to expect that this will ever be the case? In one respect it is superior, and always will be,—that is in color—but it is not so decided in flavor. Putting this and that together I am convinced that the best we can hope for when our goods go on the English market is that it will take its place side by side with the home article with little advantage, but nothing to fear by comparison, and that the prices we may expect to realise will be the ruling prices at which English honey is being sold. These prices to-day, and last year as well, are not such as to make us over anxious to lose the freight and commission it will cost to lay it down and sell it there. I think I had a better opportunity than the President had of knowing the ruling prices in Britain last year. I had our London experience as well as the experience gained in visiting and making enquiry on the subject in Manchester, Liverpool, Edinburgh, Glasgow, and Belfast, in all of which places I conversed with honey dealers, and sought a market for our products, but in none of which I saw any prospect of exceeding that which the Canadian market affords. His experience was confined mainly to a short sojourn in London.

R. MCKNIGHT.

Owen Sound.

FOR THE CANADIAN BEE JOURNAL.

The Eastern Township Bee-Keepers' Association.

ACCORDING to announcement the members of the above association met at Cowansville, at the hour appointed, on the 16th inst., when through the unavoidable absence of the President, the Secretary called the meeting to order, and J. Watt was duly appointed chairman, *pro tem*.

The minutes of the last meeting were read and approved, as was also the report of the Secretary.

The following officers were elected for the ensuing year:

President, E. E. Spencer, M.P.P.

First Vice, J. Watt.

Second Vice, G. H. Jones.

Sec.-Treas., R. P. Small, Dunham, P.Q.

Executive Committee, C. H. Jones, W. S.

Allan and Stephen Bresee.

The fees will be \$1.00 for membership as before, members receiving the C.B.J. as usual.

After discussing topics of interest to the beekeepers present until a late hour, it was resolved that the next annual meeting be held in the same place on the second Tuesday in October next.

It was decided, however, to hold several meetings the coming summer at different apiaries. Arrangements for the same were left in the hands of the executive committee.

R. P. SMALL.  
Secretary.

For the Canadian Bee Journal

### A HONEY SOCIAL.

AN entertainment was about to be held under the auspices of the choir of the Memorial Church. In the past we had concerts, lectures, tea-meetings and festivals with strawberries and ice-cream galore. The universal verdict seemed to be: "We ought to have something new." What should it be? The "bee-man" proposed a honey festival, with a dessert of readings, recitations, music and singing. This was carried unanimously and the "bee-man," who happened to be the Sec.-Treas. of the choir also soon had a poster out, on which appeared words like the following:

### HOT BUNS AND HONEY!

THE FINEST HONEY AND THE WHITEST BUNS  
FOLLOWED BY A GOOD PROGRAM.

### COME AND ENJOY IT!

This was indeed something new, and the people turned out *en masse*, some to get a taste of that fresh honey, some to enjoy the intellectual feast and a few prompted by curiosity to find out what new wrinkle those Methodists were up to now. Along towards evening two of the committee went through the town and gathered up the buns. About half an hour before they were served they were dipped lightly in cold water, quickly placed in pans and then in the oven of a coal-oil stove, where they soon became not only nice and light, but piping hot. We then took them and broke them in two, buttered them, placing two buns on each plate, along with a V shaped piece of white honey. This, with the addition of a glass of fresh milk, made a dish fit for a king—can you imagine anything nicer? This was our first honey social, and since then they have become very popular, and why should they not? Why, Why, every restaurant in the country ought to have hot buns and honey on its bill of fare.

J. F. DUNN.

Ridgeway, Ont.

Down at Bond Head our friend Mr. Carswell has been holding very enjoyable honey socials for the past two years, and he makes a success of them every time.

## SUNDRY SELECTIONS.

### A MUSKOKA BEE-KEEPER'S REPORT.

J. BULL.—Dear Sir,—As I have sent you no report since I commenced bee-keeping, I now send you a short account of my bee-keeping. In June, 1884, I bought a colony of bees from D. A. Jones, which swarmed four times but gathered no surplus honey. I put two best swarms in Jones' double-walled hives, the others in hives of my own make, and left them on their summer stands. The old colony and two last swarms I packed in chaff in a large box made to hold three hives, and left a small entrance to each. I fed them a considerable quantity of sugar, but I found them all dead before spring. In June, '85, I bought another colony from Mr. E. Shultz, of Lethbridge, which I divided into two, and put them into my cellar in good condition, but fearing they would not have enough feed to winter, I fed them some candy in March, after which they became so restless I could not keep them in. I set them out and a lot of them flew out and died. Spring found them in middling condition but they got along well. Before the honey flow I divided them, making two new colonies from each old one and afterwards lost a swarm from one of them. They did not give much surplus, but I put the six colonies in the cellar in good condition with plenty of stores without feeding, all in double-walled hives and a cover of loose chaff two or three inches thick. Cellar ranged from 38° to 48°. I set them all out about April 10th; two were dwindled down and were very weak, but the other four were fair. I increased by swarms and dividing to eighteen and lost two swarms. I took from 150 to 175 pounds of extracted honey, but found they needed feeding in the fall to keep up brood-raising, and fed them eight to ten lbs. syrup for winter. I intended to feed more but cold weather came on before I could get sugar, so I put them in as they were. I put them in on 29th Oct., they were restless for some time but seem very quiet now. I expect they will want more feed before spring. Which is the best way to feed, and when will be the best time. I have vegetables in the cellar with the bees, and I am afraid if I start to feed they will become restless, and will be coming out when the cellar is opened to get vegetables. The temperature ranges from 42° to 48°. Seven are in double-walled hives, and the rest in single; all are covered with loose chaff, and behind the division-board is filled up with the same. If you will kindly tell me what to do through the C.B.J. I shall be obliged. I read in C.B.J. of your visit to Mr. E. Schultz. I am pleased to bear testimony to the kindness and hospitality of Mr. Schultz and his wife. If you have time for a little hunt next fall I should be pleased to see you at Uffington and to talk bees with you. I am no sportsman myself, but I have friends here who do a little in that line. This is a nice place for hunting, and though deer are not as plentiful now as at one time, there are still some to be found.

Uffington, Ont., Jan. 2nd, 1888.

Thanks for your very kind invitation to visit you and hunt. We are glad to hear that you have succeeded so well in

bee-keeping after a partial failure at first. Those who have slight reverses when they start out in the bee business and overcome all obstacles, usually make our best apiculturists. With a large increase you could not expect to get much honey, and especially in seasons as unfavorable as the last three or four. Muskoka possesses many grand openings for bee-keeping, and we look forward to the time when our Muskoka friends will have tens of thousands of acres of that rocky land, which cannot be cultivated, seeded with Viper's bugloss, bokhara clover, the Chapman honey plant, and many others that would well repay them sowing the plant until it once became established. The unlimited opportunities for securing a continuous flow of honey by seeding those burnt districts would enable the bee-keeper to reap a rich harvest. We thank you very much for the report, as we are exceedingly anxious to hear of the success of our Muskoka friends. Their kindness and hospitality is not equalled in older settled places, and they well deserve all the prosperity that nature can bestow upon them.

### REPORT OF A BEE-KEEPER OF 30 YEARS STANDING.

F. L. MOORE.—My bees have been in winter quarters two months to-day, Dec. 31st. On examination I find them very quiet and very few dead. Thermometer registered 46°. Air inside seemed fine and dry. During that period the thermometer outside of house has registered at one time 18° below zero. Variation inside 4°.

About thirty years ago I started in life for myself and when I left the parental roof a kind father said: "Son I will give you a swarm of bees." I did not show signs of contempt for the present, but down in my heart I would have been thankful if he had not made me the offer for I disliked the bees so much that I would not fetch the swarm to my newly made home. About two years after, father, in the month of March, brought me two swarms and said: "Here is the colony I gave you with part of its increase, I kept the other part for my trouble." I was then forced to accept them. I took care of them as best I knew how until they increased to seven colonies in three years then I lost them all. After I had lost them I saw there was pleasure and profit in the bees and I began to have a better liking for them, and my love continued to increase until I went and purchased a colony for \$4.00. Took care of them a little better than the others until they increased to nine colonies and then lost them all again. By this time I had become more acquainted with the bees and believed if they could be successfully wintered and cared for there was both pleasure and profit in the bees as my loss was all in the wintering. How to arrive at that point I did not know as I had no access to apian literature of any kind.

and I thought without that knowledge there was no use in trying. If I had then your interesting BEE JOURNAL and the Cook's Manual you sent me last fall I think I would not have been long in knowing how to handle bees. Nine years ago last July a runaway colony crossed the country onto my land alighting on an oak tree. This swarm I and my boys hived. In the fall I buried them this way—I raised the ground about nine inches, on the top of that I put about four inches of dry chaff, then two pieces of 2x4 scantling on their edge first tacking two small strips across to keep them from turning, the scantling to be the same distance from outside to outside as the hive is wide—on the top of the scantling I set my hive without a bottom board, then put strips of board around the hive one end in the ground the other running to a point above the hive in the shape of a cone; on them strips of boards, a coat of straw, on the straw a coat of earth about nine inches deep and my bees were buried for the winter without any ventilation. In the spring they came out very strong. The second year I buried them the same way putting the hives in a row four inches apart on the scantling. In the spring they came out very strong. The third year increased to eighteen. Killed six with sulphur in the fall to get the honey and buried twelve in the same way. In the spring they came out strong. The fourth year increased to thirty-nine. Killed seventeen with sulphur and buried twenty-two. The fifth year increased to sixty-nine. Killed twenty-nine by sulphur and buried forty. Sixth year increased to eighty-five. Killed thirty-three by sulphur and put into my bee house fifty-two colonies for winter. In this year I thought I had struck a very good system of wintering. They increased so fast that it was considerable labor to put them into winter quarters and I thought I would build a bee house as like the old system as I could so that it would lessen the labor in putting them in winter quarters. Here is a description of my bee house—16x30 ft. on the outside, 10x24 ft. on the inside, and about 6 ft. ceiling, ground floor, walls and ceiling veneered with cedar about four inches thick, on the outside of veneering is a coat of straw, the outside of wall is a dry stone wall about fifteen inches thick and between the wall and the straw on the veneering is filled with earth, the roof is earth sodded over. Fine ventilation with valves which can be regulated at pleasure to take off the carbonic acid gas or impure air, two that take from the bottom and three from the top, and one ventilator to bring fresh air into house. About fifteen feet from house a perpendicular pipe goes down into the ground where a cylinder is formed for the air to revolve, from this a horizontal pipe runs underground until it reaches the centre of the house. Then a perpendicular pipe until it reaches within a foot of the ceiling with a valve on, which you can control at pleasure. How I put the bees into house—there are five joists across the house eight inches high from the floor. I pile chaff all over the floor up to the joists, then I place scantling across, I set my bees on these without bottom boards.

Addison, Ont., Dec. 31st, 1887.

Thanks for your report. We are specially interested in your success in wintering without the loss of a colony

year after year. If you had placed a ridge pole over your hives and leaned boards up against it it would not cost very much to pack 100 colonies in the way you mention. The fact of your wintering them year after year so successfully proves that they do not require any more air than they could get when so packed, but this brimstone business you speak of almost frightens us. We have sometimes heard our ministers speak of fire and brimstone but you seem to have been dealing it out to the poor innocent bees in a manner never intended. We hope if there are any in your locality who practice the brimstone system yet, that in the interest of humanity you will encourage them to adopt a more humane course of treatment. No doubt you see the loss you have sustained by that practice yourself. We will be pleased to hear of your further operations and especially in wintering. Give us the result of your experience from time to time. Let us know how your bee house compares with the clamp system you adopted. You might also tell us if the ground was dry clay, loam or sand. On damp wet land and heavy clay we have heard of some unfavorable results from that system of clamp wintering but on dry ground, and especially light soils when the bees are properly put away, it seems to be a very cheap and good repository.

#### Convention Notices.

WELLAND COUNTY BEE-KEEPERS' CONVENTION.

As nearly all the friends who have signified their willingness to help organise the proposed convention for Welland county, live nearer Ridgeway than Welland, the county town, the committee in charge have decided to hold the first meeting at the Town Hall, Ridgeway, on Monday, Feb. 20th, 1888. All are cordially invited. Morning session from 10.30 to 12.00, afternoon from 1.30 to 5 p.m. A good program is being prepared. If you have anything of interest to bee-keepers either in bee fixtures or good ideas bring them along.

J. F. DUNN, Secretary.

Ridgeway, Ont.

#### CIRCULARS RECEIVED.

R. E. Smith, Tilbury Centre—16 pages and cover—this catalogue we have just turned out of our office for Mr. Smith, and in it he advertises Hives, Bees, Queens, Sections and all manner of supplies needed by an apiarist. He sells a goodly number of goods of our make, and we can assure his customers that we have always found our dealings with him of the most





## EXCHANGE AND MART.

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is **specially** intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

**WANTED.**—Extracted honey to be delivered between Feb. 1st and June 1st, 1888. Give lowest cash price on cars.

EDWARD LUNAU.

Buttonville, Ont.

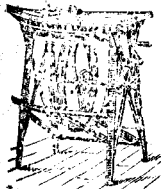
**\$1.00** Will secure you by mail, post paid, 250 Noteheads and 250 Envelopes with your name, business and address printed on the corner of each. Send in your order now. **THE D. A. JONES CO.,** Beeton, Ont.

**HONEY.**—We can take all that offers in exchange for supplies, at prices found in another advertisement in this issue. **THE D. A. JONES CO.,** Beeton, Ont.

**SECTIONS.**—We have a large lot of V groove sections put up in 500 boxes in the following sizes, viz.,  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$   $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ , double slotted, which we will sell at \$2 per package, and will take as pay either honey or cash. **THE D. A. JONES CO.,** Beeton, Ont.

## ADVERTISEMENTS.

### BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Chautau, 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, 2,000 honey boxes and a great deal of other work. This winter we have double the number of beehives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. &

JOHN BARNES, 574 Ruby St., Rockford, Ill. 21

### BEE-KEEPERS ADVANCE

Is a Monthly Journal of 16 Pages. 25 CENTS PER YEAR. Clubbed 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,  
Mechanics' Falls, Me.

## CANADIANS-

can subscribe to the

### BEE-KEEPERS MAGAZINE

the only independent publication on bee culture in America, by sending 50 cents to the CANADIAN BEE JOURNAL, who are authorized to receive subscriptions for it. Sample copy sent free by addressing a postal to

BEE-KEEPERS' MAGAZINE,

Barrytown, N. Y.

## CANADIANS

Want to supply their wants at home as much as possible, but heretofore they have not been able to do so, at least for bees by the pound, frames of brood, and nuclei. We have decided to furnish them at the prices as found in the following table:

### BEEES BY THE POUND.

	May	June	July	Aug <sup>st</sup>	Sept.
Bees, per $\frac{1}{2}$ pound	1.75	1.50	1.00	1.00	.90
" " pound	3.00	2.50	1.85	1.75	1.70
Frame of Brood	1.75	1.50	1.00	1.00	.90
2-frame nucleus..	4.00	3.50	3.00	2.75	2.50
3 " "	6.00	5.50	4.75	4.50	4.50

Frames of brood cannot be sent alone. Queens are not included in above prices. Choose the kind you want and add enough to price found here to cover cost of queen.

Two frame nucleus consists of  $\frac{1}{2}$  pound bees, two frames partly filled with brood and honey, and a nucleus hive. If wanted in either "Jones" or "Combination" hive, add price made up, and deduct 40c. for nucleus hive.

Three frame nucleus, same as two-frame, with the addition of another half pound of bees, and another frame of brood, etc.

All prices here quoted are for frames that will fit the "Jones" or "Combination" hives.. You may have whichever style you desire. Be sure to specify when ordering.

The above must go by express.

### QUEENS.

	Hornbred	Untested	Tested	Selected	Virgins
May	2 00		2 50	3 00	
June	1 50	1 00	2 00	3 00	0 60
July	1 00	90	2 00	2 50	50
August	1 00	1 00	2 00	2 50	50
September	1 50	1 50	2 50	2 75	
October	2 00		2 50	3 00	

### FULL COLONIES.

	Italian	Holy Land Crosses	Carniolan Crosses	Hybrids
May	\$9.00	\$10.00	\$11.00	\$8.50
June	8.00	9.00	10.00	7.50
July	7.50	8.00	9.00	7.00
August	6.50	8.00	9.00	6.50
September	6.50	7.00	8.00	6.00
October	7.00	8.00	9.00	6.50
November	8.00	8.00	9.00	8.00

The above prices are for up to four colonies; five colonies up to nine, take off 3 per cent.; ten colonies and over, 5 per cent. Colonies as above will each have six to eight frames of brood bees and honey, and good laying queen.

The D. A. Jones Co., Ltd., Beeton.

# 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.

**THE D. A. JONES CO., Ltd.,**  
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 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 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).....	08	08
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. Heddon'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 25
Tap bits for cutting threads.....	1 50
Tin Separators, per 100 proper width.....	1 50
Brood Frames per 100.....	1 25
Wide " " ".....	1 50

## Heddon'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

# 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, 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 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 try 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.,**

**BEETON, ONT.**

**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.

D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

**The D. A. Jones Company, Ltd.**

**BEETON, ONT.,**

MANUFACTURERS OF AND DEALERS IN

**APIARIAN \* SUPPLIES.**

*Our Circular sent free on application.*

PUBLISHERS

**THE CANADIAN BEE JOURNAL**

**FINE BOOK & JOB PRINTERS.**

Sample copies free on receipt of name and address. tt

## DADANT'S FOUNDATION

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

C. F. NEWMAN, & SON, Chicago, Ill.

T. G. 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.

EZRA BAER, Dixon, Lee Co., Ill.

J. B. MASON & SONS, Mechanic Falls, Me.

M. J. DICKASON, Hiawatha, Kans.

ED. R. NEWCOMB, Pleasant Valley, N.Y.

J. W. PORTER, Charlottesville, Va.

ASPINWALL & TREADWELL, Barrytown, N.Y.

BARTON FORSGARD & BARNES, Waco, Tex.

WE CLARK, Oriskany, N.Y.

PAUL L. VIALON, Bayou Goula, La.

and numbers of other dealers. Write for SAMPLES FREE and Price List of Supplies, with 150 COMPLIMENTARY and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1885. **We guarantee every inch of our Foundation equal to sample in every respect.**

**CHAS. DADANT & SON.**

HAMILTON, Hancock Co., Ill.

## Promote a Home Market!

By judicious distribution of the Leaflet,

**"HONEY: Some Reasons why it Should be Eaten."**

never fails to bring results. Samples sent on application. Prices printed with your name and address: 10c 80c.; 250, \$1.25 500, \$2.00; 1,000, \$3.25.

**The D. A. JONES CO., Ltd., Beeton, Ont.**

# APIARIAN SUPPLIES

MANUFACTURED BY

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

Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all sizes of the **Simplicity Hive**. The **Falcon Chaff Hive**, with movable upper story continues to receive the highest recommendations as regards its superior advantages for **wintering** and handling bees at all seasons. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

## BEE-KEEPER GUIDE.

—OR—

## MANUAL OF THE APIARY

15,000 SOLD SINCE 1876.

The fourteenth thousand just published. The 15th thousand sold in just four months. More than 30 pages and more than 40 costly illustrations were added to the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-keeping.

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

A. J. COOK, Author & Publisher,

State Agricultural College, Lansing Mich

250 ENVELOPES

—AND—

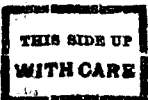
250 NOTE HEADS

FOR \$1.

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

CANADIAN BEE JOURNAL OFFICE,  
BEETON ONT.

### 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, 1.80

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

## NO BEE-KEEPER SHOULD BE WITHOUT

### Clarke's Bird's Eye View of Bee-keeping

68 pages, bound in cloth; profusely illustrated; price 25 cents.

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

## BEEES AND HONEY

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

M. RICHARDSON & SON,

Port Colborne, Ont

THE

## CANADIAN \*POULTRY\* REVIEW

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

**Poultry, Pigeon and Pet Stock Fraternity.**

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

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

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

## BEEES AND HONEY

We will with pleasure send you a sample copy of our **SEMI-MONTHLY CLEANINGS 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.

### Patent Flat-Bottomed Comb Foundation!



High Side Walls. 4 to 14 square feet to the pound. Wholesale and Retail Circular and samples free.

J. VAN DEUSEN & SONS,

(SOLE MANUFACTURERS),

41-3m SPROUT BROOK, Mont Co., N. Y.

## 10 Per Cent Discount.

On sections until March 1st. Send for free price list of everything needed in the apiary. Foundation wholesale and retail. Alsike clover seed cheap. Sample section on application.

Bell Branch, Mich.

M. H. HUNT,  
Near Detroit.

## OUR 60 LB. TINS.

We have already sold enough of these to hold a crop of over 100,000 lbs of honey. They are better made than ever, and are encased in our new style of wooden case. Have a large screw top, as well as a small one, and are thus excellent for granulated as well as liquid honey. The prices are:

- Each.....\$ 0 50
- Per 10.....4 80
- Per 25.....11 25
- Per 100.....42 00

"Charcoal" tin used in these. As a rule "Colony" tin is used.

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