

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 /
Couverture de couleur | <input 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 checked="" 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 checked="" 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. |

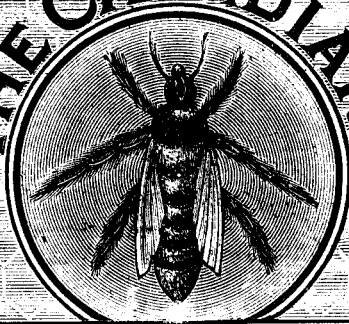
VOL. III, NO. 34

1887

NOVEMBER 16

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$

WEEKLY

IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

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

ADVERTISEMENTS

WE CLUB

The Canadian Bee Journal and.....		
Cook's Manual, cloth.....	\$3 25	\$4 00
A B C in Bee Culture, cloth.....	2 25	2 00
Quinby's New Bee-Keeping (cloth)	2 50	2 25
Alley's Handy Book (cloth).....	2 50	2 25
Langstroth on the Honey Bee (clh)	3 00	2 75
Heddon's Success in Bee Culture	1 50	1 40
"A Year among the Bees," by Dr C. C. Miller.....	1 75	1 60
A Bird's-eye view of Bee-keeping by Rev. W. F. Clarke.....	1 25	1 15

"Foul Brood"

Its Management and Cure.

BY D. A. JONES. NOW READY

This little pamphlet is presented to the Bee-keeping public with the hope that it may be the means of saving infected colonies from death by fire and otherwise. No expense is required to successfully treat the disease, other than the little time required for fasting.
Price, 10 Cents.

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. Hutchisson. Paper, price, 25c.
- THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.
- A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W. F. Clarke. Price 25c
- 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 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.

SHOW CARDS.

PURE
HONEY
FOR SALE.

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. Front and Central Avenues, Cincinnati, O.

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 everyone, 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; 10 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.....	1.00
" " "Bee-keeper's Guide," monthly.....	1.75
" " "Rays of Light".....	1.50

TO CONTRIBUTORS

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

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

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

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

TABLE OF CONTENTS.

	PAGE
Apiary, Our Own	603
America as seen by Mr. Cowan.....	694
Bees into the cellar, When shall we put.....	692
Bees, Who may keep	697
Honey, A talk on marketing.....	789
Winter quarters, How to put into.....	789
Early, Setting into.....	693

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, ONT.

YOUR NAME IS WANTED

to appear in the American Bee-Keeper's Directory. The Directory will be a neat hand book containing the names and addresses of bee-keepers in the United States and Foreign countries. Send us 10c, and have your name appear in this book, and by so doing you will receive circulars from dealers and thereby become posted as to where you can do the best. You cannot invest ten cents better than by having your name printed in this book.

Those who send their name to be published in this book must enclose ten cents, write your name, post office directions, county and state. Write how many colonies of bees you have and your average yield of honey, so that we may properly rate you. Also state the variety of bees you prefer, whether Italians, Carniolans or other breeds. This work is intended to fill a long-felt want among bee-keepers and by the co-operation of all, a good work can be accomplished.

A department will be reserved in this hand book for the names of Apiarian Supply Dealers and Queen breeders, and two lines will be allowed them giving room for their name, address and business and will be inserted for 25c.

A limited amount of display advertisements will be inserted in this book at the following rates:

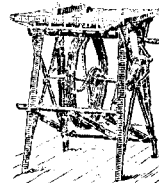
1 page.....	60 lines.....	\$12.00
1-2 ".....	30 ".....	9.00
1-4 ".....	15 ".....	5.25
1-8 ".....	7 1/2 ".....	3.00

Space may be ordered now, and it will be reserved. No pay asked until proof is sent.

The size of the book will be 6x7 inches, neatly printed and bound. A space will be left by each name for a memorandum. The names will be printed in alphabetical order. Besides being an accurate index to active bee-keepers, giving their names, addresses, and almost a report of their business, the book will also contain a dictionary of bee-keepers' implements and descriptions of the various races of bees together with autographs of our more prominent and scientific apiarists. You cannot afford to miss having your name in this book. Address at once.

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

BARNES' FOOT-POWER MACHINERY.



Read what J. J. 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, 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,
t.f. Mechanics' Falls, Me.

W. Z. HUTCHINSON,

ROGERSVILLE, GENESEE, CO., MICH.

HAS published a neat little book of 45 pages, entitled

"THE PRODUCTION OF COMB HONEY."

Its distinctive feature is the thorough manner in which it treats of the use and non use of Foundation. Many other points are, however, touched upon. For instance it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

Price 25 cts. Stamps taken; either U.S. or Canadian

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.



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 cents.

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

To those sending us three *new names*, with \$3.00, we will send Dr. O. 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 CANADIAN BEE JOURNAL

WEEKLY.

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

VOL. III. No. 34 BEETON, ONT., NOV. 16, 1887. WHOLE No. 138

OUR OWN APIARY.

HOW TO PUT BEES INTO WINTER QUARTERS.

WE do not consider it necessary to wait until cold weather arrives before placing our colonies in their winter quarters. They can be put in early in the morning before they commence to fly, or late in the evening after they have ceased but in any case they should be carried to their winter quarters as carefully as possible. There is a great difference in the way of doing the work; some people try to do it as carefully as possible, and yet handle them very roughly. If the hives are carried in one at a time in your arms, the end of the frames should stand lengthwise from you because if the frames stand sidewise, the sudden jars of moving, causes them to oscillate, disturbing the bees, frequently breaking the clusters, causing them to gorge themselves with stores, and rendering the possibility of wintering more difficult, because of the fact that as it is usually warmer in the bee-house than out doors at the time of carrying them in, they will not cluster again so tightly in the bee-house or cellar. If placed into winter quarters without being disturbed they, of course remain clustered in just that much more compact a form, and will not consume nearly so much food.

Before we start to carry them in we close all the entrances, then, if they

should receive a slight jar that would otherwise disturb them, seeing no light they are not nearly as liable to become excited. The entrance blocks are left on the hives in the bee-house until all are in. After making all dark inside the entrance blocks are removed, leaving the entrance full width. We then remove the lid, and the propolis quit, putting on one that will allow the moisture to escape. If there are hems in the quilts or any other means allowing of its escape, the quilts need not be changed.

A TALK ON MARKETING HONEY.

WE have frequently remarked that there was very little danger of overstocking our market with honey, if we developed it as it should be. There is not one-tenth part of the honey used in America that could be used, or would be used, if the necessary efforts were put forth to put it on the table of the consumer. Of course we differ on this point from many of our bee friends, and conscientiously so, as they have not had the best of success in disposing of their crop, and they felt that reduction in prices was necessary in order to get rid of it. We have heard of good honey being sold at from 5c. to 7c. per pound, even last year there was honey sold at 5c., when if the producer had kept his honey, advertised it for sale or put it on the market at a fair price, he would have realised at least

gc. for it at wholesale. The probabilities are that there is not honey enough in America to supply the market this year. Where the proper efforts are put forth for the sale of honey the demand doubles every year, and from all that we can see there appears to be no danger of overstocking. Perhaps for a short time the markets may fall and the prices be reduced, but that will have its good effect. When Canada first commenced developing the cheese business a great many rushed into it and there was more produced in one year than could find a market at a good paying price. The result was that cheese dropped to a very low figure for a short time. People were not long in taking advantage of these low rates and the consumption of that article doubled and trebled very rapidly. The production has increased year after year until now there are millions of dollars worth produced, and yet there is no sign of glutting the market. In fact, as soon as it was produced in sufficient quantities, and of a quality that would warrant people in embarking in the business, cheese dealers sprang up in different quarters and commenced vying with each other as to who would handle it and instead of the dairymen having to seek a market, they had their products purchased at their doors and received cash for it. This will be the case with honey as soon as we produce it in sufficient quantities to warrant dealers in engaging in the trade. Had anyone attempted to ship honey to Europe this year, they might have been able to make one shipment, but afterwards would not have been in a position to supply their customers, so that the market made in Europe, after the trouble of establishing it, would have to be handed over to some other country after the first consignment. We need never expect to establish a market for our honey in Europe unless we can keep up a constant supply and satisfy our customers, when once they take hold of it, and recommend it and establish a trade, that we can supply them from time to time, and constantly, as their trade increases. In Europe business is carried on differently from what it is here. There are many grocers and dealers in this country who will purchase a line of goods, even though they know it is the only lot they are likely to get, and after

it is sold out will take hold of something else, but in London, Eng. for instance, you go to a dealer and satisfy him that your goods are cheap, that they are pure and all that could be desired, that the style of package is attractive, that he can put nothing upon his shelves or his counter that would add more to the attractive appearance of his shop and that the profits between the wholesale and retail were equal to or better than any other goods that he handled, that after the goods were once sold customers would return for them again, that they would be better pleased with it than anything else he could sell them, in fact, satisfy him on every point in connection with the business, but if he found that you could not furnish the goods from time to time as he ordered them he would plainly tell you that there was no use establishing a trade for goods that he could not constantly furnish to his customers, because once the people become accustomed to the use of any article they stick to it much more tenaciously in England than in America. Once they became thoroughly accustomed to a first class article of honey from America they would, in all probability, continue its use until something superior could be given them. No one could embark in the honey business this year, and have exported it to Europe without great loss, in fact absolute failure, as the stiff prices in this country and scarcity of crop, would not have enabled them to have exported in sufficient quantities and on a large enough margin to pay expenses. The high prices of butter, and scarcity of fruit in some sections, go still further to increase the demand for honey, and already in many localities the price is being raised higher and higher. Would it not have been worse than madness for us to neglect our own market, depriving our own people of the chance of purchasing our crop, causing them to adopt the use of something else, and all for the sake of a foreign market? There can be more honey sold among the farmers throughout the country, who do not keep bees, than is produced in the Dominion. The great mistake that many of our purchasers make is rushing off to large cities trying to sell to a dealer who does not understand the business, but who keeps our product on his counters mixed up

with other goods, frequently not presenting a very appetising appearance, thus bringing our products into disrepute. No grocer or dealer should be allowed to handle our honey unless he thoroughly understood or was instructed on this point to enable him to do justice to himself and to the producer. It is our own fault if we do not realise a fair profit for our labor. There is scarcely a bee-keeper who cannot establish a market for himself, and he *should* have more influence in his own locality than a stranger. He should first see that the honey is used by all of his neighbors before he thinks of carting it off to adorn a grocer's shelves and counters. We think the next book we require on bee-keeping should be the "marketing of honey," with full instructions in reference to the quality of all the different varieties of honey, the source from whence they are gathered, instructions to growers, instructions to dealers, tests of purity, how to liquify, and all particulars relating to the business. A chapter should be written on every point, so that when any question arises in reference to the matter in any way that you could turn at once to the point and learn what was there written on the matter. Ninety per cent. of our population do not use honey constantly. This is just *as it should not be*, and he who will give such explicit instructions as will enable everyone who engages in the business to do it profitably and satisfactorily will confer a great boon on the bee-keepers of America, and we will not have to seek a foreign market for our products for many years to come if we ever have to. We shall be pleased to receive hints from any and all of our bee friends through the C.B.J. or privately. As the bees are now going into winter quarters there are many who will have leisure on their hands that they could talk this matter over, not only for the benefit of themselves but of their fellow bee-keepers.

WHO MAY KEEP BEES.

A MEETING of the Farmers' Institute was held in Beeton on the 8th and 9th insts., at which were present Prof. Brown, of the O.A.C. Guelph, Thos. Shaw, Esq., Editor *Live Stock and Farm Journal*, Hamilton, Dr.

Bryce, of the Provincial Board of Health, A. Blue, Esq., Ontario Bureau of Industries, and the local members. Mr. Jones, the senior editor of the CANADIAN BEE JOURNAL, was requested to prepare a paper on the subject, which forms the heading of this article, which we give as follows :

Should farmers keep kees ; should mechanics keep them ; should school teachers, ministers, and a host of those in other occupations, as well ? It may be said that all may keep them to advantage where they have sufficient time to give them the proper attention, and, in the majority of instances, they make a success of it ; but there are very many who are utter failures in this, while they may be admirably adapted to other pursuits. The majority, however, who succeed in other pursuits, may, by applying the same amount of energy and tact, succeed in apiculture. It is a business which requires but little capital to commence and carry on, and when considered with other pursuits, it yields better returns in proportion to the amount of capital invested. The trouble with those who take up bee-keeping and make a failure of it is that they do not understand and carry out the small details connected with the business, and of all pursuits this is one which requires the most careful attention to *every* detail, if a success is to be made of it. They seem to imagine that it is a business which will admit of a considerable amount of laziness on the part of the proprietor of the apiary, and that the little inmates of the hive do all the work, that they board themselves and bring in the wealth of the fields to their owner irrespective of care and management on his part. All such are sure to meet with disaster sooner or later, but to those who give it the necessary attention the profits are larger in proportion than in any other business in which the same amount of capital be invested.

The question of whether farmers may keep bees to advantage is the one which, I take it, you feel most anxious that I should dilate upon. I think that it is a pursuit well adapted to be carried on in connection with farming, especially where the farms are small. There are many "tillers of the soil" so situate that they can make bee-keeping a part of their occupation with advantage to themselves, and to their families, in more ways than one. They have children growing up who have spare time and would consider it a pleasure to attend to an apiary, the returns of which would be no small item in connection with the income of the farm ; and aside from the profits, the fact of bringing

the children up to some useful employment in conjunction with farming, making them better prepared to go forth into the world to make an honest living, is one which is worthy of consideration. It has a tendency to cause them to study nature and shows them how bountifully they have been provided for in every respect. We know of numerous instances where fathers have given over the management of their farms to their sons, and now devote the whole of their time to the management of their bees, and I have it from them personally, that the profits in connection with the latter, as compared with the amount of capital and work, are much ahead of those of the former. Mr. Pettit, the President of the Ontario Bee-keepers' Association at the present time, is one of those. Mr. Emigh, of Holbrook, is another, the latter, if I remember rightly, hiring help on his farm, so that he is enabled to devote his own time to the apiary, while giving the farm his personal supervision as to management. I believe that \$5000 invested in farming will not produce any more profits than \$1000 invested on the same farm in apiculture, and as a business it is really not more hazardous, there being no more risks in connection with it, than there are in ordinary farming. Many farms that are not adapted for grain growing, stock raising, etc., and on which no profits could be made in these directions, with the assistance of an apiary would pay a good dividend. The northern portions of the Dominion are especially adapted for this, as in the Muskoka and Parry Sound districts and along the north shore where it is almost impossible to make farming of itself a success, many apiaries have been added, the profits therefrom being much in excess of those made from the farm itself. In this direction would it not be a good idea if ministers were to engage more largely in the pursuit? In new districts they could educate the settlers and at the same time add considerable to their income with but small expenditures. They would in this way be benefiting their people financially as well as spiritually.

Mechanics, school teachers and others can make it a successful adjunct to the respective pursuits which they follow. It seems to me that it is something that every teacher should understand, and it might not be a bad idea to have small apiaries in connection with schools. It would be a recreation for the pupils, and would give them at the same time an insight into the business which would be of immense benefit in after life. Two or three hours might be taken every week, as well as the recesses, for the purpose of instructing the pupils in the

manipulation of the hive, and the method of production of both comb and extracted honey. These lessons learned in their youth would never be forgotten, and pleasant recollections of apicultural experiments at school would remain fresh in their memories, so that when circumstance or opportunity offered, their knowledge might be brought into practice. In rural school sections some such plan as this would be specially applicable, and I feel satisfied that the parents of the children, in many instances, would be glad to purchase colonies for their children with which they might experiment, and at the same time produce sufficient honey to supply the table from the colony or colonies which they might have. Would it not be worth trying? The business, as a whole, is now so simplified that the merest novice can, with a little application, engage in it with success.

FOR THE CANADIAN BEE JOURNAL.

When shall we put Bees into the Cellar?

IN your issue of Oct. 26th you give utterance to the belief that bees ought to be put into winter quarters earlier than is the general practice. I have for some time thought the same, and I am of late putting mine into the cellar earlier by a month than I did formerly, and with uniformly good results. We used to think they must be left out just as long as possible. Often times it would be near the holidays before they were cared for. In my own experience and observation, such colonies often wintered badly. The reason is obvious to me. After having been frozen and thawed for a month, their abdomens inflated by engorgement to keep up the animal heat, their vitality taxed to the utmost by exposure, their numbers decimated by death, and their systems prepared by such treatment for diarrhetic tendencies, such colonies would be foul their hives worse, and need a flight sooner than those put in earlier and confined much longer. Last fall I began putting the bees in the first part of November and finished some time in December. The first put in were the last taken out. They were not disturbed until the middle of April—the last were removed to their summer stands April 20th. Those left out the latest were in the worst condition in the spring.

This season I took in about half of my number Oct. 26 and 27. Since then we have had some delightful weather. Yesterday the air was full of bees—those yet out playing. At such times they probably fly a mile or more from home, searching for food. It sounds cheerful to hear their "sweet hum," but I think they are better

off in a quiet state. Thousands of bees must perish every day, when on the wing. In the cellar, although the thermometer marked 50° yesterday, the bees were perfectly quiet.

If no unforeseen conditions arise to change my plans, these colonies put into the cellar Oct 26th will not see daylight till the middle of April—nearly six months.

The idea of leaving the bees on their summer stands just as long as possible in the fall, smacks too much of the practice of some farmers, who let their cattle luxuriate on the sunny side of a barb-wire fence till the "bonny" blizzard's blinding blasts attract the standing hair toward the horns. This is to make them hardy you know.

EUGENE SECOR.

Forest City, Iowa, Nov. 1, 1887.

We think you are right in this matter of putting bees in early, as your observations agree with ours. There is no doubt but that if left out late they are in not nearly so good condition as when put in early, after they are once nicely clustered between the combs. Again the hives and combs are not usually as dry. The moisture escaping from the bees in cold weather condenses on the combs not covered by the bees, and this goes into winter quarters with them. Frequently we see the combs quite damp after they have been placed into winter quarters, and the frost begins to come out of them. Some may fancy this moisture an advantage, but we want just as little of it as possible. The honey or sugar syrup which they have sealed up in their combs contains all the moisture they require. We hope more of our friends will follow your example and test the matter of putting bees in much earlier.

For the Canadian Bee Journal.

"Setting in Winter Quarters Early."

ON page 631, last number of the JOURNAL, under the above heading you ask: "Have any of our bee friends ever tried placing them in winter quarters thus early in the season before cold weather sets in?"

A "sinner" is trying it. I had thought that when all the honey-producing plants were killed by the frost, that the bees would only be wearing themselves out and consuming their winter stores by exercise and the alternation of warm and cold days, and warm and cold nights, and came to the conclusion that some of my colonies should be placed in winter quarters (with me

that means the cellar) just as soon as they were ready. Our first killing frost came on the night of Oct. 15, and for several nights in succession there was a hard frost. The golden rod and asters had been yielding a little more honey than the bees consumed, but they sealed it over nearly as fast as gathered, so that on Oct. 19th all the colonies that were ready were put in winter quarters, and to-day seem as cosy and comfortable as could be desired, the thermometer indicating 50°, and out doors there have been very few days when it was higher than 50°, and some nights as low as 24° and most of the time lower. I may set them out for a fly before real cold weather sets in, but not unless it gets warmer than it has been since they were put in. To-day the thermometer at its highest was 50°, and a few bees were flying, but they looked rather lonesome, and, I believe would be better off in the cellar, and will soon be put there unless I change my mind, which I don't think I shall.

I don't like to have the pets killed off by these cool days and nights. In looking at the inside of the hive when the weather is cool I frequently find a small cluster of bees on the outside combs of which you speak, and I don't like to lose so many, especially at this time of year.

The bees in the cellar seem to be clustered at the front end of the hive, and down to the bottom board at the entrance and they do look really comfortable and cozy.

I always weigh every hive when it goes into the cellar, and also when taken out. To day I have weighed those in the cellar and some have lost a pound in weight, and some show no loss whatever, weighing just the same as when put in days ago. They are all on six Langstroth frames.

You say: "Suppose some of our best bee-keepers place a few colonies in winter quarters now, etc." Now, I don't pretend to rank among "our best bee-keepers," but I can watch those in the cellar and see whether they will do better than those out-doors, just as easily as any body, and I do enjoy weighing them and noting their condition just as much as "our best bee-keepers" unless they have a larger capacity for enjoyment than I have, and it may be possible that I am the first one to put bees in winter quarters so early. If I keep on perhaps I'll "get to know something" after awhile, and that "Mason-work" inert (a la Pringle), may accomplish something after all.

Breeding in my colonies ceased long ago, and if old bees don't winter well, then I shall lose heavily. There is so little pollen in the combs that I have no fears of diarrhoea. You see I am a firm believer in no pollen for winter if I want to be sure of no diarrhoea among the bees.

If my colonies were all ready for winter, they would have been in the cellar before this. Other duties kept me from preparing for winter till it was quite late, and when fed the stores were not sealed enough to suit me, and I am leaving them out in hopes of having enough warm weather—now that our Indian summer has come—so that the honey will be sealed over.

A. B. MASON.

Auburndale O., Nov. 1, 1887.

Now, friend Mason, you were included in that list of "largest and best" bee-keepers. If we had just said the *largest* bee-keepers perhaps you and friend Doolittle would have considered that you two had been selected to perform the work. However we are very glad that you have taken this matter up, and are giving it your earnest attention. Such a philanthropic man as you are, working as you do so disinterestedly in the interest of your fellow bee-keepers can do much good in this matter and as you are careful in your experiments, your report, from time to time, will be all the more interesting. You are evidently on the right track and it will be pleasant, we presume, in after years for you to realise that you are one of the pioneers in this business. It is perhaps too late now, but next year it would be interesting to weigh the bees on their summer stands, and those placed in winter quarters, to ascertain the difference in the consumption of honey for say six weeks or two months with the ones set in earlier. There are many details in connection with this matter to be considered and when they are all carefully considered and carefully experimented on it will enable us to know the exact conditions in all circumstances, and we will then be able to arrive at definite conclusions which, no doubt will be much appreciated by those who have sat and looked on.

THE PREACHER ON HONEY.

REV. T. DeWitt Talmage recently preached a sermon on "Forbidden Honey," in which he said:

"The honey bee is a most ingenious architect, a Christopher Wren among the insects, a geometer drawing hexagons and pentagons, a free-booter robbing the fields of pollen and aroma, a wonderous creature of God, whose biography, written by Huber and Swammerdam,

is an enchantment for any lover of nature. Virgil celebrated the bee in his fable of Aristæus, and Moses, and Samuel, and David, and Solomon, and Jeremiah, and Ezekiel, and St. John used the delicacies of bee manufacture as a Bible symbol. A miracle of formation is the bee; five eyes, two tongues, the outer having a sheath of protection, hair on all sides of its tiny body to brush up the particles of flowers; its flight so straight that all the world knows of the bee line. The honey-comb is a palace such as no one but God can plan and the honey bee construct; its cell sometimes a dormitory, and sometimes a storehouse and sometimes a cemetery. These winged toilers first make eight strips of wax, and by their antennæ, which are to them hammer and chisel and square and plumb line, fashion them for use. Two and two these workers shape the wall. If an accident happens they put up buttresses or extra beams to remedy the damage. When about the year 1776 an insect, before unknown, in the night time attacked the bee hives all over Europe and the men who owned them were in vain trying to plan something to keep out the invader that was the terror of the bee-hives of the continent, it was found that everywhere the bees had arranged for their own protection, and built before their honey-combs an especial wall of wax with port holes through which the bees might go to and fro, but not large enough to admit the winged combatant called the Sphinx Atropos.

"Do you know that the swarming of the bees is divinely directed? The mother bee starts for a new home, and because of this the other bees of the hive get into an excitement which raises the heat of the hive some four degrees, and they must die unless they leave their heated apartments and they follow the mother bee and alight on the branch of a tree and cling to each other and hold on until a committee of two or three have explored the region and found the hollow of a tree or rock not far off from a stream of water, and they here set up a new colony and ply their aromatic industries and give themselves to the manufacture of the saccharine edible. But who can tell the chemistry of that mixture of sweetness, part of it the very life of the bee and part of it the life of the field."

AMERICA AS SEEN BY MR. COWAN.

AS promised a week or two ago we herewith present a report of the quarterly meeting of the British Bee Keepers' Association, which was held on the 19th of October, and at which Mr. Cowan gave a description of his trip to Canada and the United States.

The report as presented in this issue was given without the aid of notes, and with little previous preparation which, says the *British Bee Journal*, must be his apology for any omissions or mis-statements. We have pleasure in producing the report as printed in the *British Bee Journal*. We have also pleasure in reproducing the copy of the resolution which was made at that meeting and which will be found in the report.

QUARTERLY CONVERSAZIONE.

The last Quarterly Conversazione of the present year was held at the offices of the Royal Society for the Prevention of Cruelty to Animals on Wednesday, the 19th inst., when among the

America, where he had seen many of the Canadian gentleman who were in London last year, and had also inspected some of the largest apiaries in the world, it would be extremely interesting to the bee-keepers present if he would kindly describe the wonders he had seen, and what kind of a reception he had met with from their brethren on the other side of the Atlantic.

The Chairman—When I came here to-day I was not prepared to make any lengthened statement respecting my journeys in North America, but as it seems to be the general wish that I should say something on this matter, I shall be very pleased to give you an outline of what I have been doing over there. It is just three months ago since we (my wife and I) started for New York. After a fair passage we landed in



MR. THOS. WM. COWAN.

crowded audience present were the following ladies and gentlemen:—Mr. Cowan, Mr. Hooker, Captain Jonas, the Hon. and Rev. Henry and Mrs. Bligh, Miss Gayton, the Rev. Mr. Scott, the Rev. G. Raynor, Captain Campbell, Mr. Meggy, Mr. Henderson, Mr. Webster, Mr. Grimshaw, Mr. Andrews, Mr. Sambels, the Rev. W. E. Burkitt, Mr. Lyon, Mr. Garratt, the Rev. Mr. Clay, Mr. Baldwin, Mr. Neighbour, Mr. Maclure, Mr. Crawley, Mr. Fatt, &c.

Mr. Cowan presided, and in opening the proceedings said that no special subject would be brought forward for discussion, but that there were several appliances and inventions for exhibition and examination.

The Rev. Mr. Scott suggested that as the chairman had very recently paid a visit to North

that city, where the thermometer registered 99, ° which seemed a very high temperature on coming off the ocean. We could not therefore stay in New York, but journeyed north up the Hudson river to Albany. From there the first establishment we visited was that of Messrs. Aspinwall & Treadwell. These gentlemen are in business together as hive manufacturers, queen breeders and dealers in bees. Their trade is not on a very large scale, but they do a fair amount of business. We stayed a few days with Mr. Aspinwall, who is proprietor of the *Bee-Keepers' Magazine*, whom I found a most intelligent gentleman, fond of scientific pursuits. I found their appliances are very much the same as ours; and I may here take the opportunity of saying that throughout my wandering in the

States and Canada I noticed that most of the contrivances in use were similar to those adopted by us in England. I have been enabled to carry away a few new ideas, but I feel justified in remarking that we are quite equal to our transatlantic friends as regards hive-making and all the appliances necessary in bee-keeping. That which struck me most to the disadvantage of England was our deficiency in pasturage. You would be perfectly astonished to see the thousands and thousands of acres of waste land across the water filled with an abundance of honey-yielding plants, immense quantities of honey being lost owing to the want of bees to collect it. After spending a few days with Mr. Aspinwall, he took me to see Messrs. Knickerbocker and Locke, the queen-raisers in New York state. Mr. Locke is the former editor of the *American Apiculturist*. These gentlemen raise queens in a way very similar to the Alley system, that is, by inserting strips of cells and destroying every other egg. They rear the queens in the same way, but destroy two eggs for one left, and keep them in very much the same way as he does. From there I went to see the largest bee-keeper in the world, Captain Hetherington, who has 2,700 hives. He has twenty apiaries, situated at distances of two or three miles apart, in a radius of twelve miles, so that the greatest distance he has to go from home is twelve miles. He and his brother manage the whole of these apiaries, having several men under them; they keep horses and carts and are hard at work all day long and continue so till evening. Business is commenced at 5 o'clock in the morning. I was there during the hours of business and saw all the working. The men go round from hive to hive and take off crate after crate; perhaps a hive has three stories of sections which are promptly examined and removed if necessary, and in this way 100 or 150 racks of sections are taken off and carried away. The sections are not removed singly, as we remove. Captain Hetherington produces the largest quantity of honey in the States. He does not puff himself, and he never writes to any of the papers; in fact, one seldom sees his name appearing anywhere in connection with honey-raising. He is one of the most advanced bee-keepers, and the largest producer of honey with the least fuss I have ever seen. He has been at this work for thirty years, always keeping a little ahead of the generality of bee-keepers. He is a good business man and knows how to gratify the popular taste, having no difficulty in selling his honey. He uses sections the same as we do, and also separators. He says it would not answer his purpose to do without separators, as he requires every

section to fit into a crate, because there is no time for delicate manipulation, he and his staff working at high pressure from early morning till late at night. Captain Hetherington drove us over to see Mr. Elwood, who is also an advanced bee-keeper, owning 400 hives, and who goes in principally for two-lb sections. We also made the acquaintance of Mr. Van Deusen, who makes the beautiful flat-bottomed foundation so well known in this country. From Captain Hetherington's we went to Boston and other places. As I before explained we were obliged to direct our steps northward owing to the high temperature. We therefore went to Quebec, Montreal and other places, regretting that Mr. Pringle was too ill to see us when we stopped at Napanee. At Owen Sound we spent an agreeable time with Mr. McKnight. He has 200 hives of bees, and uses sections without separators. I saw a number of his sections; they looked very nice, but some not quite so even as those that were produced with separators. I found, generally, in Canada that it was the practice to dispense with separators, while in the States they were almost invariably used. The Canadians claim to produce more honey without separators. After spending some time with Mr. McKnight I went with him to visit Mr. Jones, and saw his works. He is the largest manufacturer of appliances in Canada, and has a 90 horse-power engine working the machinery for the construction of these articles. I was much interested by what I saw there. The business is conducted on a large scale. Hives are made in pieces and stored away by the hundreds, and are supplied to purchasers by the dozen, the score or the gross. Cases are made up of ten hives together. In Canada bee-keepers work on a large scale, there being very few in a small way of business. They go in for it as a commercial undertaking; and of course taking into account the pasturage and the immense extent of their country, they can do so better than we can. While at Mr. Jones' Mr. Corneil came and invited us and we spent a very pleasant evening together. The journey from London to Liverpool is only a question of a few hours, but travelling in America from one city to another generally occupies a great many hours. The country is not so populated as ours, and I found it necessary sometimes to make an excursion of 500 or 600 miles from one bee farm to another. On one occasion I went nearly 1,000 miles to see the establishment of one honey producer and foundation maker, and that was Messrs. Dadants', of which I shall say more hereafter. After inspecting Mr. Jones' manufactory, his 400 hives, and his queen-raising arrangements, we went to Lake

Superior and from there through Michigan state to Lansing, where I stayed with Prof. Cook. He does not keep bees on a large scale, he is more of a scientific bee-keeper and tries experiments with different hives, the results of each of which are kept separate. His object is to teach entomology and bee-keeping to the agricultural students, so as to enable them to commence that pursuit on leaving the college. There are about 300 students at this agricultural college, many of whom are interested in bees. On one afternoon Prof. Cook asked me to take his class of about forty students, and I am glad to tell you that by means of my microscope I was enabled to show them some things they had not seen before. They were generally well educated and intelligent men, who, after leaving the college go out as farmers. The time spent at the college was most agreeable, the Professor being a charming and sterling man. While there I found my way to Mr. Heddon's. He seemed to me a very intelligent gentleman, very quick to seize an idea and appreciate the experience of others. He showed me his apiaries, although he was unfortunately suffering from bee-disease, which affects him in a very peculiar way, namely by producing catarrh, so that he cannot open a hive himself without being attacked by this complaint. However, as I was there, he showed me how the hives were manipulated, the consequence being that he suffered considerably all the evening. He showed me the handling of the shallow hives, and how easy it was to find the queen. I ascertained that he brought his bees through the winter very unsuccessfully and had lost as many as from forty to fifty per cent in wintering. We discussed the merits of the Heddon and Stewarton hives, and in the course of the conversation he stated that last year was a very poor honey season, which bore out the complaint of the Canadians who were over here in 1886. I cannot remember what he said was the average produce, but it was not more than 20 lbs. to a hive at any rate. I found in his district the honey season had been very bad, whilst in some parts of New York state the reverse was the fact, 60 to 80 lbs. per hive being an average yield expected; but there were other districts in which not more than 10 to 15 lbs. were obtained. One gentleman (the President of the Michigan Association) jokingly said that no one would believe I had been to the States if I returned to England without boasting about something, and he further said if I came to him I could boast I had seen the apiary where nearly one pound of honey per hive had been obtained this year. From Mr. Heddon's I went to Chicago and met an old friend, Mr. Newman, who showed me

over his place, which is in the city. Unfortunately, I did not let him know when I was coming, and, consequently, he was unable to get any bee-keepers to meet me, but he was most hospitable, taking me for a five hours' drive through the city, and showing me all the lions of the place. From there I went to see Mr. Dadant. He is a Frenchman, who settled in America some years ago, and with his son carries on the business of bee-keeping. They also make a large quantity of comb-foundation. Last year they turned out 70,000 lbs. of foundation, but this year not more than 50,000 lbs., as the season was such a bad one. It is the best natural-based foundation I have seen in America. They melt about 3,000 lbs. of wax at a time, and in this way are able to get the color uniform. The foundation most in demand in America is the natural base foundation made on the Vandervoorts' machine. They also produce a large quantity of extracted honey, and a little comb honey. They work the extracted honey just as we do, by storifying or putting one hive on another. Their hive is a little larger than the Langstroth hive with supers about six inches deep. These frames are used for extracting. They have 400 hives now. This year has been a very bad year, they having obtained only 9,000 lbs. of honey. I think the bad season is demonstrated by the fact that their issue of foundation this year has been 20,000 lbs. less than last year's. From the Dadant's I went back to Chicago and spent a little more time at Lansing. From there we travelled on to Toledo to see Dr. Mason. He was out, but he visited me in the evening, and we had a chat about bees and other matters. I found him a very nice, agreeable gentleman, quite well up in bee matter. Mr. Cutting, Secretary of the Michigan Association, who is a very smart and energetic worker in our cause, accompanied him, and I regretted time did not permit me to stay longer to visit them. From Toledo we passed on to Medina, where we saw Mr. Root and his son, Ernest. Mr. Root is the editor of *Gleanings*, and he and his son made our stay there most pleasant. They are both very intelligent and anxious to pick up information. We spent a very agreeable time at Medina. Mr. Root is a very different kind of man to what I had pictured him. He is short, thin and seems quite worn out with work. He has worked extremely hard and has succeeded better than any one else on that side of the ocean in popularizing bee-keeping and creating a demand for appliances. He employs 150 hands making nothing but hives and appliances. Everything is turned out on a large scale. He has machinery for doing almost everything, and

it was quite a treat going over his large factory and his yard. I met one or two Englishmen employed there, who seemed well satisfied with their lot. I found men hard at work when I visited the manufactory, one making the metal corners for the frames was stamping them out by a very ingenious machine for the purpose. At Mr. Root's, as I had my microscope with me, I was enabled to clear up some points respecting foul brood. He knew all about foul brood practically, but had not been able to make any close investigation of it microscopically. I must tell you that wherever I went I found the microscopes in use inferior to that I had with me. Even Prof. Cook had not seen the germs himself, although he had a mounted slide containing specimens. When I showed him the bacillus under my microscope with one-twelfth Powell's oil immersion he was much interested. There was no instrument in the college with such magnifying power. Mr. Root told me he had never before seen foul brood in its different stages. The disease over there is exactly similar to what we have here. From Mr. Root's we went to several other places, Niagara among the number, and afterwards met by invitation the Canadian bee-keepers at a large meeting, and exhibition of hives and honey in Toronto. The exact quantity of honey exhibited I cannot remember, but the figures were given in the *British Bee Journal*. The exhibits of two hive manufacturers, the D. A. Jones Company and Messrs Gould, occupied a great deal of space, but the honey was rather crowded like the Canadian exhibit here, which militated against the attractiveness of the show. The clover and linden honeys were excellent. As regards the linden honey I think it is superior to ours, the Canadian climate being better suited for its production, but clover honey is as good here as over there. They had an extraordinary, but, to my mind, somewhat objectionable way of selling honey at the show. A section was cut into four pieces, and each piece offered for sale separately, five cents being charged for a quarter. You would see people distributed all over the show biting at their pieces of comb, and eating it as they walked along. By this method a large quantity of honey was got rid of, but it was not pleasant to see the people pushing about in a crowd and messing each other with the sticky substance. I expressed my opinion at the time to some of the bee-keepers, but they assured me it would be impossible to sell the honey at that exhibition on any other plan; and as the all-important object at these shows is to sell the honey I suppose the custom is likely to continue. At this meeting I had the opportunity of seeing a large number of the Canadian bee-keepers.

They came from districts far and wide. Mr. Young, editor of the *Norwegian Bee Journal*, was there at the time, and we were both very hospitably entertained by our Canadian friends. We also met Mr. Holterman, our Canadian correspondent, Messrs. Pringle, Emigh, Alpaugh, Hall, Rev. W. Clark, Macpherson, McKnight, Corneil, and others. I was honored by the presentation from the bee-keepers of Ontario of an address, and also a walking-stick with a gold top, which lies here for your inspection on the table. The address has appeared in the columns of the *Journal*, where the walking-stick cannot be inserted. I am glad to say that everywhere we went in Canada and the States we met with a most hospitable reception. We became on good terms at once, our co-workers over the water doing their best to make our time agreeable; they showed us everything, and our difficulty was to find sufficient time to see all there was to be seen. We might have stayed several days longer at each place, and been made most comfortable and welcome, but it was not practicable under the circumstances. At the Toronto meeting of course I was asked to say something about the B. B. K. A. and I made a special point of describing briefly the working and organization of the Association. They were very much interested to hear the record of our work and system as they have nothing of the kind over there. Their Associations are merely Associations of bee-keepers in certain districts, who meet for the purpose of talking over matters connected with their work. After the pleasant time spent at the Toronto exhibition, we went to see Mr. Hall, of Woodstock, Vice-President of the Ontario Association, one of the largest Canadian honey producers. He has 400 hives and has produced as much as 200 lbs. per hive. Of course he is not able to do that regularly, 80 to 100 lbs. being a good average. He makes bee-keeping his sole business and depends upon it entirely for a living, as many others do in America; Captain Hetherington is one for instance; he was a captain in the army during the rebellion. He started bee-keeping, and being fond of it, made so great a success that he has managed to live sufficiently well and bring up a family on the proceeds of the business. Mr. Heddon has made bee-keeping his only means of subsistence, besides lately the editing of a local paper. He had very little money at starting. Mr. Hall was obliged to give up the business he was in owing to bad health, and took to bee-keeping as a livelihood. He is bringing up his family upon it. As a business, speaking generally, it answers very well in America. At Mr. Hall's I picked up a

great many ideas, but I cannot describe everything on the spur of the moment, having seen so many different things; I shall, however, be able to enter more into detail in the *Bee Journal*. From Mr. Hall's I went with him to Mr. Pettitt, President of the Ontario Bee-Keepers' Association. As he was not able to be present at the Toronto meeting, I thought it was only right I should go and see him, and I stayed with him from Saturday to Monday, and spent a very pleasant time there. His hives are very similar to ours, and he has adopted a frame almost the size as our standard, which he finds answers quite as well as the deep frame he had been using. He works with sections of one and three-eighths width without separators. From there Mr. Pettitt accompanied me to see two or three other bee-keepers who lived between his place and St. Thomas. One of these, Mr. Alpaugh, a young man, I found to be an advanced bee-keeper of great intelligence. He is the inventor of the machine for fixing foundation in sections, which I will show you at work here to-night, and which has been sent by Mr. Corneil. You will see it is an ingenious contrivance, but, unfortunately, I cannot show you the working of it as well as he did himself. From Mr. Pettitt's we went through New York state to Washington, and from there to Philadelphia. In Carpenter's hall at the latter city we met with a hearty reception. This hall is of great historical interest, for it was there that Washington sat, and the first Congress met, and the Declaration of Independence was signed. At Philadelphia we made the acquaintance of several scientific bee-keepers. I believe there are more scientific bee-keepers in Pennsylvania than in any other part of the states. Dr. Townsend is President of the Association. Mrs. Thomas, who goes in actively for bee-keeping there' asked if we had any lady bee-keepers in England. On my replying 'yes', she said we ought to make more of that fact in the *Bee Journal*, because such notices would stimulate other ladies to undertake the same pursuit. Although it might do in America, bee-keeping on a large scale was not suitable for ladies in England (laughter). This may appear strange, but there is, undoubtedly, a difference between the mode of life led by ladies in America and in this country. American ladies are used to hard work. In every household every lady does her share of work as much as the man does and performs her part of the household duties. There is a great difficulty in getting servants there, and she has to do cooking, sweep the rooms or dust the furniture. Gentlemen also assist in the household duties sometimes cleaning the boots. You will, there-

fore, see that what American ladies might do what ours could not. I must not forget to acknowledge our indebtedness to Dr. Townsend, Mrs. Thomas, and Mr. Arthur Todd for their kindness. The latter gentleman took us about and showed us everything of interest in Philadelphia. It was there I met our friend, Mr. Hooker's son, who also kindly showed us about. From there we travelled back to New York and across the ocean home. I am afraid in the foregoing remarks I have only given you a slight idea of what we saw and did and the districts we have travelled over, but the pages of the *Bee Journal* shall give you fuller particulars from time to time. Wherever I took my microscope it was a source of great interest and delight, and the preparations were attentively examined. I have already told you how hospitably we were received everywhere in the States and Canada. All bee-keepers seemed pleased to meet me, not only as a brother bee-keeper, but as a representative of the bee-keepers of this country. I assured them that the compliments paid to me would be appreciated by the members of our Association here, and I can now only repeat my expression of thanks for all the kindness I received on the other side of the Atlantic. Our trip was a very enjoyable one although travelling is not so easy there as here, and one becomes wearied by the long distances. Of course my wife could not bear the fatigue of accompanying me everywhere. Accommodation is not so good there as here; sometimes in out-of-the-way places we had to sleep on the floor owing to unwelcome bed-fellows. In conclusion let me say I shall be happy to give you any further information in my power, if you will ask me questions on any specific points. (Loud and protracted cheering.)

(To be continued.)

SUNDRY SELECTIONS.

FIRST PRIZE HONEY.

WM. AIKEN.—I send you herewith my subscription for the present year. I flatter myself I have had very good luck during the past season. I am still greatly pleased with the CANADIAN BEE JOURNAL, and am always much disappointed when a number misses. I have 1200 to 1500 pounds of honey for sale, which I am satisfied will rank No. 1 pure clover and linden. I took first prize for it at our county fair.

St. Marys, Ont., Nov. 8, 1887.

The number on the address label shows the date of expiry of subscription. Examine it and see how you stand and if behind with your JOURNAL dues have it remedied.

FEEDERS.

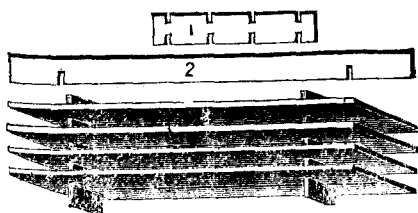
THE CANADIAN FEEDER.



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.

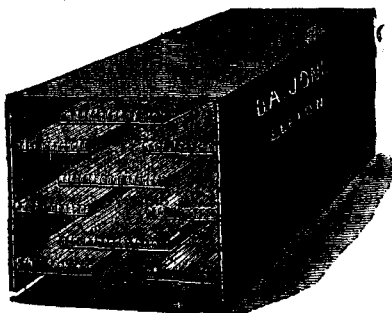
IMPROVED CANADIAN FEEDER.

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.

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 30
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., LD.,
BOSTON.

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 :

BEES BY THE POUND.

	May	June	July	August	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.

	Homebred	Untested	Tested	Selected	Virgins
May	2 00		2 50	3 00	
June	1 50	1 00	2 00	3 00	6 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	Florids
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., LD., Boston.

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

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, 7½ 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.

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 4½ x 4½ 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

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. 53, 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 any 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. 11

DADANTS FOUNDATION

is attested by hundreds of the most practical and disinterested bee-keepers to be the cleanest, brightest, quietest 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. HERTZEL, 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, Barytown, N.Y.
BARTON FORSGARD & BARNES, Waco, Tex.
W. E. 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 us truly 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 a judicious distribution of the Leaflet,

"HONEY: Some Reasons why it should be Eaten."

It never fails to bring results. Samples sent on application. Prices, printed with your name and address: 10c, 50c.; 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 Chad Hive**, with movable upper story continues to receive the highest recommendations as regards its superior advantages for **wintering** and handling bees at all seasons. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1887. Free.

W. T. FALCONER.

BEE-KEEPERS' GUIDE.

—OR—

MANUAL OF THE APIARY

15,000 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, Lansing Mich

250 ENVELOPES

—AND—

250 NOTE HEADS

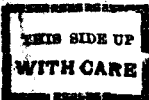
FOR \$1.

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

CANADIAN BEE JOURNAL OFFICE,

BEEETON ONT.

SHIPPING LABELS.



These are for pasting on the tops of cases.
Price, per 10, 5c. by mail, 6c.
" 100, 25, by mail, 27
" 1000, 1.50 by mail, 1.60

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.

FOLDING BOXES

Our Cartons for enclosing Section Honey are the best and lowest priced in the market. Made in one piece. With or without tape handles, with Mica fronts or without. In the flat or set up. Printed or not, any way to suit. We are bound to satisfy you. We have just put in special machinery for their manufacture and are prepared to fill orders promptly. Price list **Free**. Samples 5c.

PRICE LIST OF 4 1/2 x 4 1/2 x 2 OR THINNER.

	500	1000	5000
Advance Printed.....	\$4 50	\$ 7 75	\$32 50
Same with Mica Front.....	5 50	9 25	40 00
Same with Tape Handle.....	5 25	9 00	38 75
Same with M F and T H.....	6 50	10 50	46 25

14 oz Glass Jars \$5.25 per gross, including corks and labels. 1 1/2 and 2 gross in a case. Catalogue of Honey labels free.

A. O. CRAWFORD, S. Weymouth, Mass.

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 "coke" tin is used.

THE D. A. JONES Co., Ld., Beeton.