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THE CANADIAN BEE JOURNAL

WEEKLY.

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

Vol. 1.

BEETON, ONTARIO, DECEMBER 30, 1885

No. 40

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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 is 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

TERMS.—STRICTLY CASH.

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till forbid and charged accordingly.

PUBLISHER'S 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. I. 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.

JOURNALS will occasionally be lost in transmission through the mails. We are always ready to re-mail such when notified of the loss.

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.

We can supply Binders for the JOURNAL 1.25 cents each post-paid, with name printed on the back in Gold letters.

Subscription Price, \$1.00 per Annum Postage free to 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.

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, any way. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

CLUBBING RATES.

THE CANADIAN BEE JOURNAL

And "Gleanings," semi-monthly.....	\$1.80
" " "American Bee Journal," weekly.....	1.75
" " "American Apiculturist," monthly.....	1.75
" " "Bee-Keepers' Magazine," monthly.....	1.75
" " "Bee-Keeper's Guide," monthly.....	1.75
" " "Texas Bee Journal,".....	1.80

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 thoroughly 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. But 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.

"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. By Mail, 11 cents.

D. A. JONES & CO., PUBLISHERS,
Beeton, Ont.

FEEDERS!

Those who require to do feeding will find it to their advantage to have some of our

CANADIAN BEE FEEDERS

You can feed 15 to 20 pounds of syrup in one night, and there is no danger of robbing. The price is low, and the sale is very active. Our factory is running on them at the present time.

Made up, each.....	\$ 60
" " per 100.....	45 00
In flat, each.....	40
" " per 100.....	30 00

We can guarantee that they will give satisfaction.

D. A. JONES, Beeton, Ont.

J. P. CONNELL, Hillsboro, Hill Co., Texas, can fill orders for **Pure Italian Queens** by return mail. Untested Queens, \$1.00. Tested Queens, \$2.00. Send me your order and send for my circular of Queens, Nuclei and bees by the pound.

FARMERS BUY THE CELEBRATED LARDINÉ MACHINE OIL,

—AS IT—

EXCELS ALL OTHERS.

Manufactured solely by

MCCOLL BROS.,
Toronto

DADANTS FOUNDATION

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

- A. H. NEWMAN, Chicago, Ill.,
- C. F. MUTH, Cincinnati, O.,
- JAMES HEDDON, Dowagiac, Mich.,
- DOUGHERTY & McKEE, Indianapolis, Ind.,
- CHAS. H. GREEN, Berlin, Wis.,
- CHAS. HERTEL, Jr., Freeburg, Ill.,
- E. L. ARMSTRONG, Jerseyville, Ill.,
- ARTHUR TODD, Germantown, Philadelphia Pa.,
- E. KRETCHMER, Coburg, Iowa,
- E. F. SMITH, Smyrna, N. Y.,
- C. F. DALE, Mortonville, Ky.,
- EZRA BAER, Dixon, Lee Co., Ill.,
- CLARK, JOHNSON & SON, Covington, Ky.,
- KING, ASPINWALL & CO., 16 Thomas Street, New York.
- C. A. GRAVES, Birmingham, O.

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

150 COMPLIMENTARY

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1883. We guarantee every inch of our Foundation equal to sample in every respect.

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

MUTH'S HONEY EXTRACTOR

Is second to none in the market. **Square Case, Honey Jar, Tin Buckets, Langstroth Bee Hives, one-piece Sections, etc., etc.**

Circulars made on application. Send ten cents for 'Practical Hints to Bee-Keepers.' Address

CHARLES F. MUTH,

976 and 978 Central Avenue, Cincinnati, O.

EVERY

Farmer, Fancier, and Poultry-Keeper

SHOULD SUBSCRIBE FOR

"The Poultry Monthly,"

The Best Magazine of its Kind.

Subscription, \$1 25 per annum. Sample copies, 12c.

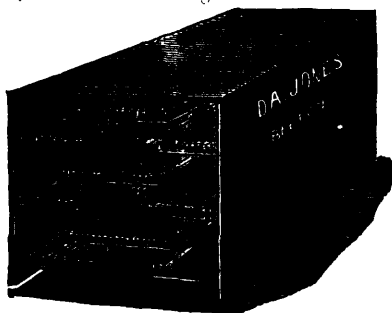
SPECIAL OFFER.—We will send the "Monthly" for a full year for \$1 to all who mention the "Canadian Bee Journal." Send for price lists of Poultry Supplies.

BONNICK & HORRICKS.

P. O. Box 215,

Toronto, O2

WINTER FEEDERS.



These are for feeding in winter, or at any other time when the weather would not admit of feeding liquids

DIRECTIONS FOR MAKING THE CANDY.

Take pure pulverized, or granulated sugar—the former preferred—and stir it into honey, nicely warmed up, until the honey will not contain further additions. Allow it to stand in the dish until both are thoroughly mixed through each other, then place in feeders and set them on top of the frame, packing all around nicely to allow no heat to escape

Each, made up	30
Per 10, "	75
Each, in flat	20
Per 10 "	1 75

We have a full stock on hand ready to go by return express or freight. **D. A. JONES, Beeton.**

Five Per Cent. Discount.

Off all goods which may be ordered now for use next season we will give the above discount. This is to induce early orders and in case you need anything for this season, you could save freight charges and the discount by ordering ALL TOGETHER. Will be given till further notice.

D. A. JONES, Beeton, Ont.

THE CANADIAN BEE JOURNAL.

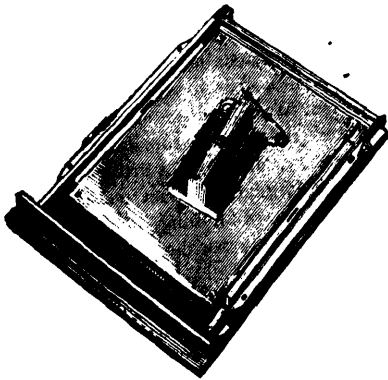
PUBLISHED BY

D. A. JONES & CO., BEETON.

WEEKLY - - \$1.00 PER YEAR

THE MITCHELL FRAME NAILER.

EVERY bee-keeper has more or less frames to nail and they all know what a trouble it is to nail them properly without some contrivance gotten up specially for the purpose. Almost anybody can nail a frame in some kind of a way, but everybody cannot make a nice job of it and have the frame square and true. Speed is another thing which is to be taken into consideration. Without proper appliances the work of nailing frames is at its best but slow. Our foreman, Mr. Mitchell, has completed an ingenious, yet simple frame nailer, which is represented by the cut below.



We can furnish them ready for use at \$1.25 each. Those we have in stock are made to fit the "Jones frame." We can make them to suit any other style or size, but as we could only make them to order, we would require to have an advance of 25 cts. on this price.

FOR THE CANADIAN BEE JOURNAL.
HONEY PRODUCERS' MEETING.

WILL you kindly allow me to give notice through the C. B. J. that the Executive Committee of the O. B. K. A., and all those who will kindly assist in making a grand display by sending honey to the Colonial and Indian Exhibition to be held in Kensington, England, next year, will meet at the Queen's

Hotel, Toronto, on Tuesday, Jan. 12th, 1886, at one o'clock p.m., for the purpose of electing a proper person or persons to take charge of our exhibits during transportation, remain with them through all the show and sell them at the close of the same; also for the transaction of other important business.

We hope to realize a good turnout. The success of our efforts will depend largely upon the man chosen to do the business for us.

S. T. PETTIT,

Belmont, Ont., Dec. 15th, 1885.

FOR THE CANADIAN BEE JOURNAL

THE COLONIAL AND INDIAN EXHIBIT.

AT a meeting of Ontario Bee-keepers who were attending the N. A. B. K. Association at Detroit on the tenth inst., it was decided that I should notify through the C. B. J. all those who will assist in making a grand Exhibit at Kensington, England, next year to send to me as soon as possible their addresses with statement of amount of honey each one will probably send to said Exhibition.

There will be a convention of exhibitors to confer with the Government Commissioner and it is most desirable to have bee-keepers represented at said meeting.

Exhibitors should have a voice in choosing such representative.

It is not yet certain whether we will be allowed to exhibit next year's crop or not. If not our efforts will certainly not be a success. Every effort should be made to secure the privilege of showing next year's crop. Let your statements be based upon the supposition of showing the crop of 1886. We believe it to be not only desirable but absolutely necessary to send a good man or two with our honey, to accompany it clear through, attend to loading and unloading: fix it up and remain with it until the close of Exhibition, and then dispose of it to the best advantage of owners. You are the proper parties to choose the men to do all this for you. Hence you see we want to know who you are &c.

Please friends do not treat this matter with indifference, It certainly is a matter of vast consequence to all Ontario honey producers, and mind you in all probability such a golden opportunity will not turn up very soon again.

S. T. PETTIT,

President O. B. K. A.

Belmont, Ont., Dec. 11th, 1885.

Mr. J. Bowes, of "Windsor Cottage," this village, hung an overcoat in his woodshed at the beginning of last summer. The other day he inspected the garment and found in one of its pockets a small bees' nest. The comb held only a few young bees whose hum had been hushed forever.—*Elora Express.*

The North American Convention.

The following letter was read from Mrs. Axtell, Roseville, Ill., addressed to Mrs. L. Harrison:—

DEAR SISTERS IN THE INTEREST OF BEE-KEEPING, —I send you a greeting. I should be glad to be with you but health does not permit, but I can assure you I am very much interested in the "busy bee," and why should I not be, it has given me a new lease of life as it were—health, happiness, and a better filled purse. Before I began to work with bees I was a great invalid for many years, my health being so poor it seemed to me life was a failure. After I worked with bees two or three years I became so enthusiastic that I forgot self and my ailments and lived for the bee, and yet it was not so much for the bee as it was for the money that would help send the missionaries to carry the blessed Bible to the poor heathen, millions of whom have never yet heard of Jesus the dear Saviour, who has done so much for you and me, and this was where the greatest happiness came in—something with which to help others. Try it, dear sisters, if you are not already working for Jesus and I can assure you your cup will overflow. I think bee-keeping peculiarly adapted to woman's work, because men are not so apt as women to look after the little things that make the bee comfortable and to build them up. They are more ready to do the big and heavy work, for that reason I think bees will be more likely to fare better if they have both men and women to look after them. I think I could be quite successful in their management alone, with the assistance of hired help, but I am sure I should miss my husband's help and counsel.

MRS. SARAH J. M. AXTELL.

SELLING AND SHIPPING BEES BY THE POUND.

THE possibility of shipping bees without hives or combs, was first brought to the attention of the bee-keepers by an editorial in *Gleanings* for May, 1879.

In this editorial Mr. Root suggested the use as a shipping cage of a common dish screen, provided with a wooden bottom and supplied with candy and water. Soon after reading this I prepared a half pound of bees and queen as thus suggested and sent them to Mr. Root as an experiment. They were received without the loss of a single bee. This settled the matter with me that bees could be sent safely in this way if all the conditions were right.

I sent out quite a number of one-half and one lb. packages that season with good success. The dish screen was soon abandoned for the much more

convenient section box and wire cloth cage, as advised by Mr. Root in *Gleanings* for June, 1879. And I would like to call attention here to the fact that our common friend, Bro. Root, is father of this business and that nearly every advancing step made by his now healthy youngster has been made at his suggestion.

Without detailing to you the many heavy losses and great discouragements which we met with the following three years, and owing to which we very nearly abandoned the business as ruinous, I will state that we now have the matter so well under control that it is as safe and profitable to us as any other department of bee-keeping.

I still use the well known section box shipping cages: each crated so as to protect it somewhat from accidents. When a number of packages are to be sent to one address they are placed several in one crate; I have sent as many as twenty-five one pound packages in one crate, but generally divide large shipments into crates containing twelve or fifteen packages. These crates are so arranged as to admit of ample ventilation for each package of bees.

For feed I use the *Good Candy* made of the best pulverized sugar, and clover or basswood honey. This candy enables us to dispense with the water which was necessary with the candies formerly used. When the bees are not likely to be confined more than twenty-four hours, no feed is really necessary, although a little candy is put into all cages, to guard against possible delays. The proportion used for long distances is about four ounces of candy per day for each pound of bees.

I now think that most of my heavy losses in former years were due to over-feeding, or rather, to gorging the bees with honey. I used to be so afraid that they would starve in winter, that I would feed them all the honey that they would take, after they were caged; notwithstanding the well known fact that bees when gorged with sweets are much more likely to become panic stricken when confined, and disgorging, smother themselves. On the other hand I now use every precaution possible to prevent the bees filling themselves while being caged. Bees caged without a queen have this same tendency to panics, and will often run themselves to death; hence I send no more bees without queens.

Next to over-feeding, perhaps the greatest cause of losses is the exposure of the bees to the hot sunshine by the carriers; on this account we place conspicuous cautionary cards on each crate, calling attention to this fact.

We also send printed "Directions" attached to each crate, for the benefit of the purchasers, many of whom are quite inexperienced in hand-

ling bees. These are very necessary, but do not always save the bees. One friend wrote me this season that I had failed to put queens into four of the five packages sent him; he said, "I know this be so because all of the bees clustered in one place." Further correspondence developed the fact that after preparing his five hives as directed, he turned all the bees loose at once by throwing them into the open air, expecting each nucleus with its appropriate queen to find the hive intended for it. Another friend lost three out of five nuclei by turning them into hives containing their full complement of combs, smeared and befouled by the bees that died during the winter and without giving them any brood to care for. Only two of the lot had grit enough to stay in their new quarters and clean up.

In regard to the profits to be derived from the business. After an experience of seven years, I believe that when we can retail extracted honey at home for eight and ten cents per pound, we cannot afford to retail our bees for less than \$3 per pound, in May, and assume all the risks now required of the shipper.

Probably the persons most benefited by the business, are those who have trouble in introducing queens, and they are not few; to such is certainly a very great advantage to buy a half pound of bees with each queen; so as to enable them to obtain the improved kinds without the risk of introducing. These little nuclei can be made working colonies at once by giving them two or three combs of brood and stores (without bees) from other hives. By adding other combs of brood as fast as the bees can care for them, they can be quickly built into full and profitable colonies; indeed two or three combs of brood and stores, is help enough in ordinary seasons, if the bees are purchased early, and in extra good seasons one half pound of bees with a good queen will often grow into a fine colony for winter. A small beginning, but not quite so hopeless as the one made by one of my neighbors. He sent to me for an untested queen; shortly afterwards he called at my yard and complained that the queen did not do very well, in fact had deserted her hive. It seems that he had put her with the few bees sent with her in the mailing cage, into a large cracker box into which he had fastened a one pound section containing comb but no honey. He said there were just nine bees with her, and that he thought four of these were plenty to stay with the queen while the other five went out to gather honey and wax.

At the risk of incurring the charge of being "enthusiastic" in regard to the immense profits to be derived from purchasing bees by the pound, I will close by giving you an extract from

a letter received from one of our Iowa customers; it sounds a little extravagant, but it is by no means an uncommon report; he probably had an extra good run of honey. Here it is.

"I kept eleven of those one pounds, put each in a full grown chaff hive with three empty combs, this is all the help they had except a little feed when they first came, and a little foundation. They filled up their hives, increased to twenty good strong colonies and gave me about 400 pounds of nice comb honey. A swarm from one of them took the first premium (\$10) at our district fair."

E. M. HAYHURST,

A. I. Root—I do not think the letter extravagant; such reports are quite frequent. The original half-pound of bees that Mr. Hayhurst sent me was put upon combs, and made so strong a colony that it was, I believe, divided in the fall. We must have young bees, and the beekeeper must be an expert. Mr. Root then described what could be done in a single season with a half pound of bees and a fertile queen in May.

There was general concurrence in the utility and convenience of selling bees by the pound
Kansas City Mo., Dec. 1st, 1885.

PRODUCTION OF COMB HONEY.

LADIES AND GENTLEMEN OF THE NATIONAL CONVENTION:

IT has been announced that I am to lead in the discussion regarding the production of Comb Honey. Before doing so I wish to quote the words found on page 723 of the *American Bee Journal*: "Long articles seldom profit those who have to do with them. Life is short; time is short; moments are precious." Especially is this last true at a bee convention, and many a person has become tired on account of the long essays read at the same. What we want is animated discussion, rather than long essays, no matter how ably written. Therefore the best part of this paper will be its briefness. There are four things of importance in the production of comb honey; first, a good queen; second, the getting of the bees at the right time to receive the harvest; third, a skillful apiarist; and fourth, the right kind of a hive.

I put the queen first for the whole of bee-keeping centres upon her. Without a queen it would be impossible to produce a pound of comb honey. Hence it becomes apparent that the better the queen is the more honey we obtain. When we come to fully realize the great value of *really good queens*, we shall have less of queens costing the apiarist nothing. I wish to have the impression on this assembly that good queens

cost something, and are valuable in proportion to the pains taken in raising them.

I put the getting of the bees at the right time to receive the harvest, second, for this is paramount to all else in the production of comb honey, except the queen. Unless we can have the bees in our colonies by the ten thousand at the right time, the flowers bloom in vain as far as filling our sections with honey. When all realize the second proposition, and work for the same to its fullest extent, one-half the colonies will be made to gather the surplus that the whole do under our present management. I place a skillful apiarist third, as he is only second to the bees and queen, unless he is skillful enough to do things at the right time and in the right place, both bees and flowers will be in vain as far as getting a good yield of comb honey in sections is concerned. Our apiarist must study hard, work early and late, and leave no stone unturned that will produce a pound more of honey, if he is to be successful producing comb honey at the present low prices for the same. I place the right kind of a hive fourth, for this comes last in the category of our subject. To be sure bees will store honey in a nail keg, but the day of putting honey upon the market in the shape it must present if taken from such a repository has passed away, so that if we would realize the most from our bees and our labor, we must get our honey stored in neat and attractive receptacles. The hive that will admit of getting the largest number of bees in the right time for the honey harvest, and then get "all hands" to work in this surplus arrangement as soon as the harvest arrives, is the one to use. We could divide and sub-divide these four heads, especially the last three, yet the above four fundamental principles would not be changed. I, therefore, leave the subject for your discussion.

G. M. DOOLITTLE.

Borodino, N.Y.

EXCELLENCE OR CHEAPNESS—WHICH?

I DO not know but that this subject was given me because some of the brethren think I have been a little too eager to recommend cheap tools and appliances; and may be they thought I would defend my side of the subject while somebody else would take up excellence rather than cheapness. Now, it seems to me that wisdom and experience should guide us in this matter, and that we can not very well lay down general rules for purchasing bee-supplies, or for purchasing anything else, in fact. Isaiah tells us, in his first chapter, to "learn to do well;" that is, doing well is progressive; and I should also say, learn to purchase wisely. If you have

got a little money that you want to invest in bee-supplies, don't be in a hurry to get rid of it all. Our text says, "Through wisdom is a house builded;" and I should say, through wisdom we make prudent purchases.

Suppose a boy gets big enough to need a knife. What kind of a knife should he purchase—a five-cent knife or a two-dollar knife? Why, I should say it depends upon who the boy is, his age, and what he wants to do with the knife. But with the average boy, I think it would be a pretty good idea to try the cheap knife first. Even if he has laid up a couple of dollars to buy a pocket-knife, I think he will get more satisfaction by trying a cheap one first than by trying the two-dollar one first. If the cheap one does not please him, nor answer his requirements, it would not be very much expense to give it to some other boy, and try a little better one. Let him carefully examine and test each knife he buys, until he becomes a tolerably good judge of knives, and is able to purchase understandingly.

There are a great many people, and good people too, who have a way of saying, in regard to every purchase that comes up, "The best is the cheapest." A good deal depends upon what you mean by *best*. Suppose you want a hammer. There are hammers in the market, for only five cents. They are not loose nor ricketty either, for they are made all of one piece of iron; and although they may be awkward and cheap-looking, they will do a vast amount of service for many kinds of work. They cost so little that if somebody borrows one, or loses it, it does not matter much; and I have found it quite convenient to have these cheap hammers scattered all around the premises. We have one down in the barn, and one in the stable out in the lots. The children have them to crack nuts; and, in fact, there are so many of them on the premises that whenever you want some sort of hammer for just a minute, you can almost always get hold of one of these, without going a great way or hunting very long. But, do you think I would give a good mechanic such a hammer to put up hives with? By no means. In putting up hives he uses a hammer almost constantly; and if I could find a hammer worth five dollars, I would give it him without hesitation; for if it were worth only a cent a day to him more than a cheap hammer, it would soon pay for itself. For this same reason a good mechanic ought to have at least three hammers, and three good ones. Now, when I say I would give a hammer worth five dollars if I could find it, I do not mean that I would buy one that is silver-plated, or has inlaid work in the handle, and things of that sort; neither would I give him a hammer that had a great

amount of unimportant work put on it. One of our large railroad companies paid \$60.00 (I think it was), for a dozen hammers to be used by some of their expensive men. These hammers were all worked out by hand, and were very handsomely made. I do not believe it will pay many bee-keepers to use tools or appliances made in this way. When he gets to be so well off in raising honey and bees that he has some money he really does not know what to do with (I wonder if there are any such here to-day, friends) it may be just the thing for him to do, to buy a six-dollar hammer to make hives with, because, you know, "the best is always the cheapest."

Suppose somebody of limited means wants to try bee-keeping. What kind of a colony of bees should he buy? Without knowing anything about the general habits of the man or woman, I would say, let them get the cheapest colony of bees that could be found in the neighborhood, thus saving expensive transportation charges, and also making their purchases of friends and neighbors. Then I would advise getting an Italian queen; but as I have said before, if one is new at the business, and, may be, likely to make blunders at first, I would tell him to get an untested queen. After he introduces her all right, and gets her to laying, if she does not turn out well in every way, let him try a higher-priced one next time, working progressively; and my experience convinces me that the best way in the world to get anything of this kind is to get it progressively. Learn to do well, not undertake to come up to the highest standard all of a sudden. There is far more enjoyment in making a little more improvement every day, than in stepping into great things, even if it could be done. The same with hives. I would first get a cheap hive—say a Simplicity. When winter comes, get a hive suitable for winter, even if it does cost a little more; but save your old Simplicity for your increase when spring comes again.

If you are going to make hives, start out with few tools, and purchase judiciously each new season, as you find you really need to. Do not get anything to be put away on the shelves until you may need it. Purchase what you need, and no more, until you have pretty surely demonstrated it would be prudence to purchase larger lots for the sake of getting better prices. If you have worked with comb foundation enough to know that you want to use it largely, you can, from past experience, usually figure out how many colonies you will need to have, to think of buying a foundation-machine.

There is another point to be considered right here. Sometimes cheap tools and cheap machinery make us so much bother and worry that

they spoil all the pleasure of trying to keep bees; whereas a high-priced tool or a high-priced machine would go right along, without any hitch or accident, in such a way that the work would be only pastime or "fun," as the boys say. Where one's time is valuable, or where he already has many cares and responsibilities, nice tools or nice machinery all in perfect working order is by all means the most satisfactory, and, I believe, the most profitable. This latter point comes in more with tools or machinery that is necessarily somewhat complicated. We had some experience in this line in making and sending out rubber plates for making foundation. While we made the machines work nicely here in the factory, and while a few of our customers were pleased with them, the majority found there were so many conditions to be observed, and the whole arrangement was so uncertain in its results, that I have always regretted that I advised anything of the sort. The same remarks will apply with force to home-made honey-extractors. We have for years sold the inside work, so that the friends who wanted to economize could save something by attaching them to an ordinary tin can or barrel; but as a rule, I believe they found it more vexation of spirit, and perhaps more expense in the end, than to have purchased an extractor all ready for use. Where one has a great many bees, and a good market for extracted honey, perhaps friend Stanley's automatic extractor will be found to be cheaper than any other.

In regard to bee-feeders, my experience has been in favor of something very plain and simple. One of our bee-friends once made a remark in jest in one of the journals, that every bee-feeder and bee-hive, according to his notion, ought to have "cog-wheels," slides, and levers, somewhere about them. Now, "cog-wheels" work very nicely in a warm room on a winter's day; but when you get out in the apiary, among the bees, about harvest time, when everything is crowding, the said cog-wheels seem to be somehow out of place. Let us have our implements plain, simple, and substantial; let us pay enough for them to have everything exactly as it should be—hives and frames interchangeable—everything so it will work easily and surely; no sticking nor jamming nor pounding to get things in place.

In regard to utensils for honey, I believe the demand seems to be in favor of cheapness—tin pails that are to be given away, as well as crates to hold our comb honey. Sell the honey for, so much, *package and all*. But even though we give them away, let us have them well enough made to be sure there will be no leaking nor daubing.

In regard to honey-knives, I would advise, as I

advised the boy with his first pocket-knife. If you have few bees, and don't expect to go into the business largely, you can make a 10-cent garden-trowel do your uncapping very well for quite a while. When you need a better uncapping knife, get it.

In regard to perforated zinc, and things of this sort, don't include any in your first purchase. Wait until you feel the need of such new implements. May be you will never need them at all.

Even though I advise economy in purchase chases, I would have everything that stands out in the weather painted. If you say you can not afford it, I would have half the number of hives, and have them protected from the weather by paint, rather than increase so fast, and have the weather constantly spoiling my implements. Besides, I would pay *something* for the sake of having things look decent and in order. A great many times, nice-looking implements encourage us to renewed energy; and sometimes just a little extra energy makes all the difference between success and failure, or profit and loss.

Every man who has honey to sell ought to have some sort of scales to weigh it on. The family steelyards will do to start with; but when ever you begin to take time enough in the course of a year, in using steelyards, to pay for a pair of scales, get the scales, but don't get them sooner, if you are cramped for means. When your business increases so that it will pay you to have still better scales, get them. Don't waste the price of a good article in bothering with a poor cheap one.

In regard to seeds for honey-plants, go slow, unless, indeed, you are a farmer, and can raise alsike, buckwheat, rape, or raspberries, so as to make it a paying investment aside from the honey. If you can do that by all means raise honey-plants. I am led to make these remarks, because some of the new friends seem to think the first thing to be done in starting in bee culture is to get a pound of figwort seed, and four or five pounds of the spider plant, just because these plants yield honey in such quantities as to be visible to the naked eye. Buy a five-cent package of these seeds first; and if they please you, plant more the next year, by which time you should have seed of your own raising.

In regard to sections for comb honey, as the appearance of this product has a great deal to do with the price obtained, I think it very likely that the *best* is the *cheapest every time*.

When you find you need a smoker (and you may need it the first day you can call yourself the owner of a small colony of bees,) I should say, try a cheap one to start with. But perhaps

you can decide what you want before you buy by examining them at conventions, or testing those used by your neighbors. I say this, taking it for granted that bee-keepers are always *neighborly*. Is it *not* so, friends?

In regard to hiving-boxes, I have sometimes thought I would about as soon have a half-bushel or peck basket fixed to a pole, as to have any of those in the market. May be, after having tried them, though, you will think differently.

When your business arrives to the dignity of requiring a steam-engine, it will pay you to look into the matter very carefully. If you *can*, go and see the engines made near you. But as I said before, be sure you need one before you get it. If you are doing your own work, decide how cheaply you can afford to furnish power by treading a foot-power machine. Whenever an engine would save you \$25.00 a year for power, if you can raise the money to buy it, without cramping yourself, buy one of one or two horse power. When you need a larger one, you can, as a general thing, dispose of the smaller one, or turn it toward another one as part payment.

While some folks get along nicely without any veil at all, others save time and save their neryes, by using veils. The same may be said in regard to gloves, although for myself I should certainly never use the latter among bees; and if I had the *entire* management of an apiary, I do not think I should ever need a veil. Cheap home-made veils will answer a very good purpose; but there are no gloves that will do, except the regular rubber gloves made for the purpose.

Prudence and economy would dictate some sort of wax-extractor. But don't buy one until you have discovered you need one. If you commence on a small scale, as you by all means should do, I would get a cheap one first.

TAKING CARE OF THE TOOLS YOU DO GET.

Now, I am going to talk a little on the above, even if the subject has not been assigned me. A cheap, low-priced tool, may be so well cared for that it will always give excellent results: whereas, the most expensive tool may be so badly used that it will very soon give poor results. Have for your tools regularly assigned places. Where any tool is wanted in different places, I would have duplicates. For instance, cheap brushes for brushing off bees should be in handy places in the honey-house, and in several places about the apiary, at least during the summer time. The same may be said of hammers. Do not leave any kind of tool out in the rain. Keep every kind of tool not only well oiled on the moving parts, but oil it to prevent rust. Oil the hinges to the door of your honey house. Rub tallow on the windows so they will slide easily

up and down. Keep your lawn-mower nicely oiled and out of the rain. Have your brooms hung up in broom-holders so the ends will not get rolled up and made useless; and keep the brooms out of the rain also. If you use a wrench keep it nicely oiled and in place. And this matter of oil is of so much importance that I would have cheap oil cans filled with oil, on nice little bracket shelves in the barn and in the stables. A little box should also be there, filled with tallow, where it can be had in a moment. A great many times the oil-can or the tallow will enable you to use a hand-saw so as to do the work in half the time it would if you had not used it. With steam-engines, and machinery for hive-making, oil is a necessity; and those who neglect to have it handy will sooner or later have to pay heavy bills for repairs that a few drops of oil might have saved. Nails and screws of different sizes should also be kept where you can put your hand on them quickly. Whether you are a bee-keeper or not, you need screw-drivers, and adjustable wrenches, where any of the children can get them in an instant, if you tell them the tools are wanted in a hurry. And, my friend, as you value the future happiness and comfort of those children, teach them to be sure these things are put back in their places as soon as you are done using them, if you should forget it yourself. A girl of five years old can easily save the time of a man and a team, may be, by knowing where to find a wrench or an oil-can; and the little girl will get it, and put it back, quicker than a big man could. That is one reason why I like little girls, and little boys too, because they can help such a "big lot," when they get into the way of helping, and when their papas make friends with them. I wonder how many of the papas to whom I am talking to-day are in the habit of making friends with the little chicks at home. Why, if you don't you lose half the pleasure of success in business. When a big crop of honey comes, and the prospect is before you of being able to pay off debts that have worried you, what a rare pleasure it is to be able to tell the children about it when you tell mamma, and have them rejoice and clap their hands too!

There, friends, I thought I was going to make a very short talk this time; but somehow, when I got agoing it talked itself. Good-bye.

Mrs. Harrison referred to a remark made in Mr. Root's essay on wearing gloves when handling bees. She found that gloves were necessary, but rubber ones did not work well, they were too close, and caused inconvenient sweating. She used a species of fine cloth. She cuts the

tips of the fingers off, which allows the perspiration to escape, and makes them more comfortable and durable.

Rev. W. F. Clarke said that rubber gloves did not last long, the honey and propolis soon rot the material. He had experimented largely with gloves, and preferred two kinds, the one a harvest glove, largely used in Canada, and made of sheep-skin; these were very cheap, costing from 30 to 40 cents, but he preferred a glove, or rather gauntlet, made of two separate materials—the inside a species of Canton flannel, a fluffy material, and the outside, a species of fine-linen, very glossy. Such a glove is thick enough to prevent the point of the sting reaching the flesh, and the beauty of it is that when these gloves are on you can dip your hands into water which keeps you cool, and causes the bees to fly as soon as they alight on the glove, for they are dainty and do not like to wet their feet.

Mrs. Harrison—I do not think that the lining is needed.

J. B. Hall—Wear smooth clothing, singe the hairs from the hands and wrists, and but few stings will be received.

Rev. L. L. Langstroth—Bees dislike to alight upon a cold surface: have dishes of ice water in the yard, and occasionally plunge the hands into the water when the bees are cross.

Prof. Cook—I think that a nervous, irritable person may be more likely to be stung; aside from this, I do not think that bees are any "respecters of persons." I question if sweat of horses is objectionable to bees. If a horse is severely stung, cover it with blankets wet with cold water.

Mrs. Temple, of Michigan, said that she could handle bees any way she wished, and the scarcely ever stung her. When they did, she suffered no particular inconvenience. She did not mind a bee-sting more than a mosquito-sting.

Mr. Heddon was in favor of wearing veils, but would not recommend gloves. They were very much in the way. He did not think there was the difference in people that Mr. Clarke would make out, some being bee-loved and some being bee-hated. He thought that the difference was only in the actions and behavior of people when among bees.

G. M. Doolittle was satisfied that there was a real difference in different persons as to liability to being stung. He had a visit from a gentleman who said that bees never stung him, and Mr. D. acted so as to irritate the bees. They stung him (Mr. D.) very freely, but never touched the visitor.

James Heddon—I have seen nothing to indicate that bees are more likely to sting one person than another.

Rev. L. L. Langstroth said that the poison of a bee-string was very virulent in the case of some, while others did not mind it at all. At one time of his life he was very susceptible to bee-virus, and dreaded being stung; but, after having being laid aside from bee-keeping for some time, and cautiously resuming, he found to his great surprise and pleasure that he had become so inoculated with the poison that he scarcely felt any pain whatever.

Mr. Boardman brought up another point in the essay—"Excellence or Cheapness"—as it respects section-boxes. He said that much might be done to preserve our honey-flora, by using something else than basswood for section s. He never uses basswood; honey stains it, so does water.

J. B. Hall—I use and prefer white spruce. It is hard, and the honey does not soak into it.

James Heddon—I do not use basswood.

Rev. L. L. Langstroth—Upon the subject of the essay read, I would say that excellency is cheapness

Mr. John Vandervort, of Laceyville, Pa., then read the following on

COMB FOUNDATION.

To go back to the origin of comb foundation and trace its history would be a waste of time in repeating what is familiar to all practical bee-keepers. The best and most practical use of foundation is what we need to know. By the use of wired frames for the brood-chamber, I have obtained better results from foundation 6 square feet per pound than I formerly did with 3 square feet to the pound.

There has been a great deal said and written on the different kinds of foundation, and many tests have been made that, in my opinion, proved nothing. I have made mills of every style in the market (except the Pelham); I have made foundation on them; and I have tested all the different styles of foundation in the hives, and even my bees would not give my pet theories any preference, so far as acceptance was concerned. When it was all made at one time, from the same lot of wax, and used at the same time, it would all be accepted alike; but if made of different lots of wax and at different times, they would show a decided preference for the purest and softest wax, and the newest made.

My experience in the use of comb foundation for surplus differs from many, in the amount of wax that should be used. Many claim that 8 to 10 square feet to the pound is light enough; but I contend that it should not be heavier than 12 square feet per pound. Comb drawn from foundation is much tougher than the

natural comb, and for this reason we should use as little wax as possible in the surplus honey. I find by repeated experiments that I can get as much honey from the light as from the heavy foundation, and I receive no complaints from my customers about "fish-bone."

D. A. Jones—I have had "fish-bone" in one part of a case and not in another. One trouble is, the sections are put on too soon and the bees run over the foundation and "fool" with it, and it becomes hard before they attempt to draw it out.

Thos. Pierce—I agree with Mr. Jones.

Geo. E. Hilton—I also agree, and would further say that when only a "starter" is used, I am more apt to find "fish-bone" in the upper part of the section, which does not occur when the section is filled full of foundation.

N. W. McLain asked, "What shall we do with old foundation?"

J. C. Van Deusen—Melt it up and make it over; or if you do not wish to do this, soak it in warm water before using it.

C. P. Dadant—I have used foundation 3 years old in the brood-nest, and could see no difference between it and new foundation. If placed outside the brood-nest, or where the bees do not cluster upon it readily, it will probably not be used so soon as would new.

Dr. A. B. Mason—I agree with Mr. Dadant.

A. E. Manum—I have tried foundation of different ages, from one year to five years old, and could see no difference.

C. P. Dadant—When we first give foundation to the bees, the new may be used first a short time, but as soon as the foundation is warmed up there will be no difference.

D. A. Jones—If foundation is kept for several years it will acquire a bluish color. If it is put into warm water (say 120°), it will lose this bluish cast and become soft and pliable like new foundation.

W. E. Clark—I have kept foundation in a hive for 5 years, then nived a swarm upon it, putting in some sheets of new foundation, and both old and new were worked alike.

J. Vandervort—Thin foundation can be made upon a mill for making heavy foundation, but I find it better to sheet the wax thin. My objection to a press is that it cannot make thin foundation unless it is sheeted thin.

James Heddon—I think there is quite a point in regard to whether foundation is exposed to the air, or kept closely boxed, as regards its being soft and pliable when old. Everything considered, I prefer new foundation. Bee-keepers themselves are to blame for all this talk about "fish-bone." I used foundation for 3 years before my

honey-customers knew it, and only one ever noticed it. Foundation was then much heavier than now.

The convention then adjourned until 7.30 p.m.
EVENING SESSION.

The meeting was called to order at 7.30 p.m.. President Cutting in the chair. Dr. C. C. Miller's essay was read by the Secretary, entitled

BEE-KEEPING AS A BUSINESS.

In the CANADIAN BEE JOURNAL for November, 1885, the question is asked, "Charging for salaries for work done, for necessary expenses, and for depreciation in the value of accessories, does bee-keeping pay?" Replies are given by 19 bee-keepers. Of these, 3 are non-committal; 8 say "yes, if the business is rightly managed;" 1 thinks it will pay if the person is adapted to the business, if compared with other rural pursuits; 4 give a more or less decided "no;" and 3 give just as decided a "yes." This leaves the question about as unsettled as ever, and it is evident from a close scrutiny of the answers, that in the minds of some of the respondents at least, that the question was looked upon in rather a loose way without considering the limitations put upon it by the querist.

As I have been asked to open the discussion of this subject before the North American Bee-keepers' Society, it may be well to try to get at the exact matter to be discussed; and in order to do this, it may be necessary to ask, what is the object of the discussion? that is, what good is to come of it? I am not sure that I know, unless it be to answer the question for that class of persons who are trying to decide whether to adopt bee-keeping as a means of livelihood. In that view of the case the question might be something like this. Can I make as much money in a series of years, at bee-keeping, as I can at any other business? The more I think about it, the more difficult it seems to me to give an answer that will meet all cases, and perhaps the only safe one is: "I can't tell. You must try it and find out." But as the question is asked in good faith, some discussion may help.

It will hardly do to attempt a general answer, as too many do, by quoting the results of a successful year by a skillful man, saying "Mr. A. made \$3,000 clear, such a year." If Mr. A. had business ability by which he could make \$4,000 a year at some other business, then for him bee-keeping did not pay. If Mr. B. can average \$500 a year keeping bees, and there is no other business at which he can make more than \$400 a year, then for him bee-keeping pays well.

Perhaps one of the best ways to get the desired information, is to ask those who have had experience in the matter. We will interview Mr.

C., a bee-keeper of some note. In reply to our query, Mr. C. says:

"Oh yes, bee-keeping pays well. Adam Grimm made a fortune at it."

"What has been your own experience in the matter, Mr. C.?"

"Oh, I only keep bees as a matter of recreation. I had, one year, over 40 colonies, but my time is so much taken up with professional duties that I only keep about a dozen. I have kept a cash account with them, and find they pay me well.

"Why don't you keep a larger number, or devote your entire time to it?"

"Oh, I couldn't afford that. You see I can make so much more as a lawyer. But then there are thousands of men who only earn say \$400 a year, who would be greatly bettered by taking up bee-keeping as an occupation. I can easily clear annually \$5 per colony. Now one of the men I have spoken of, with 100 colonies could make at that rate \$500 per year, so, you see, he would have his condition bettered \$100 per annum.

"But, Mr. C., have those men the ability to do as well as you?"

"Well, I don't know. It's hard to tell."

But I was only to open this discussion, and I suppose it may now be considered open. I may just add a word from my own experience. I have been in the business some 24 years, making it my sole business for the last 7 years. I have no patent hive to sell, do not sell bees or queens—simply produce honey to sell, and I am obliged to confess that I could make more money to give up bees entirely. If asked why I continue at the business, I answer: I like it. It keeps me out-doors, and is good for health. It allows me to be with my family more than any other calling at which I could make as much, and for the privilege of these enjoyments I am willing to pay the price of the additional money I would make at a more lucrative calling. Whether the price may not become too large for me to afford to pay, is an open question.

A. I. Root—I think that none of our bee-periodicals now advise everybody to keep bees. Dr. Miller should have mentioned that he was receiving a large salary when he embarked in bee-keeping. He has frequently told me how he enjoyed bee-keeping. If it brought him health, what more could he ask?

S. T. Pettit—Mr. Root's speech is a sample of showing the bright side, and leads us to think that there is nothing like bee-keeping.

J. B. Hall—Editors like to tell good news; if I tell how much honey I produce, the bee-papers tell of it, the newspapers take it up and spread the story all over the world, and everybody thinks that "if he can make money in producing

honey, I know I can." I know of many people who have been engaged in the business and lost money at it.

Thos. G. Newman—Editors publish just what bee-keepers write them for publication, and try to fairly represent the pursuit. At least, I know that is the case with the *American Bee Journal*.

Martin Emigh, of Holbrook, Ont., was called upon and asked if he had made bee-keeping pay. In reply he said that he had paid for his farm out of the proceeds of his bees. Last year he put 180 colonies in cellars and took 178 alive; sold 71 colonies and now has 177 colonies, and they produced 6000 lbs. of comb honey and 5000 lbs. of extracted honey.

H. R. Boardman asked all those who made an exclusive business of bee-keeping to raise their hands. A very animated discussion arose as to who *did* make bee-keeping an exclusive business, and some exceedingly fine points were raised, when further discussion was stopped by a motion to lay the subject on the table, which was carried.

Mr. Nelson W. McLain, manager of the Experimental Station of the U. S. Agricultural Department at Aurora, Ills., read from the advance sheets of his forthcoming report to Prof. C. V. Riley, U. S. Entomologist; but he requested that what he read should not be reported, because it had not yet been published by the Department, and it was only by the courtesy of the Agricultural Department that he had been permitted to present it to this Continental Society of Bee-keepers. He assured them that each one of the bee-periodicals would be furnished with proof-sheets in time so that they could publish matter simultaneously with Prof. Riley's forthcoming report. The subjects treated upon were, "Bees and Fruit" and "Artificial Fecundation of Queens." The report detailed the results of investigations and experiments carried on by him at the Government's Experimental Station. It demonstrated that the bees cannot injure fruit, and gave the account of several experiments in fecundating queens artificially.

At the close of Mr. McLain's remarks, the Rev. L. L. Langstroth offered the following resolution which was unanimously carried:

Resolved, That this Society highly appreciates the movement now at length made by the United States Department of Agriculture, in the promotion of bee-culture, and welcomes its representative, Mr. Nelson W. McLain, to whose explanatory address and the extracts from his forthcoming report the Society has listened with much interest, especially concurring in the suggestion that statistics of the honey crop be included in the report of the Department.

A. J. Cook—People have several times told me that their grape vines had been destroyed by bees, and I have offered to come and see the destruction, if they would let me know when it was going on, but I cautioned them to first be *sure* that they had a case. I have never yet been called. Bees do sometimes attack grapes, however, but it is when the weather has first caused them to crack, or something else attacked and opened the skins. I cannot believe that queens cannot be fecundated while in the larval state.

N. W. McLain—When I gave to Prof. Riley an account of my experiments in fertilizing queens in the larval state, he said that it was nothing strange; it had been frequently done with other insects. By exercising the laws of breeding, different varieties of bees can be crossed, the undesirable qualities eliminated, the good qualities preserved and so intensified that we really have a new strain of bees that will transmit their characteristics.

James Heddon—Have you the temerity to tell me that I can cross the Italian and German bees, and secure a cross possessing the good qualities of both varieties?

N. W. McLain—Most assuredly.

Mr. Heddon then gave a history of how his strain of bees were originated. In regard to bees being trespassers, he said that people do not look at the matter in its true light. In some localities cows are allowed to run at large; what would be said of the land owner who would put poison into a pumpkin, saying, "It is my poison, my pumpkins, and my land, I can do with them as I please, let people take care of their cows if they don't want them poisoned." There is as much sense in saying that bees must be kept at home. All bee-keepers should join the Union, and thus help to have bee-keeping organized as a legitimate industry.

N. W. McLain detailed in graphic language the treatment to which honey was subjected at the hands of commission men. The remedy is to let people know that you have pure honey for sale. If bee-keepers would take one-fourth the pains that patent medicine men do to advertise, there would now be no complaint of a poor honey market.

The convention adjourned until 9 a.m. of the next day.

THIRD DAY—THURSDAY.

MORNING SESSION.

The meeting was called to order at 9 a.m. Pres. Cutting in the chair.

It was moved and carried that the Secretary be paid \$50 to pay for his expenses and services.

The President called on Mr. T. G. Newman for a report on "Apicultural Necrology."

THE CANADIAN BEE JOURNAL.

[This is omitted for want of room: it will appear next week.—ED.]

Prof. Cook remarked that he was very much interested in the subject, and remembered with pleasure many meetings when those mentioned by Mr. Newman had been present. He spoke particularly of Mr. Moon, the original projector of the National Society, and Mr. Williamson, who so nobly managed the entertainment of the Society at Lexington, Ky. He moved a vote of thanks to Mr. Newman for placing their names and history before the Society, and also that it be placed upon the minutes. Carried unanimously.

Mr. James Heddon then read the following on

REVERSING COMBS.

My experience with reversing brood and surplus combs is nearly all confined to two seasons, but as I have had in use 4,000 to 6,000 reversible brood-frames, as well as quite a number of reversible comb-honey-cases, that experience has been somewhat comprehensive. I try to be practical in all my work, never jumping hastily at conclusions, nor adopting methods and fixtures which, although of some little advantage, still are not enough to over-balance the extra cost of construction and manipulation. Despite such endeavors I realize that it is by no means impossible for me to make mistakes, yet I feel quite positive that implements arranged for reversing brood and surplus combs at will, have come to me to stay.

During the past year I have been using a hive which I devised for the purpose, with which I can reverse, or more properly, invert a whole case of brood or surplus combs at will. While we all, here, consider this a great improvement over reversing combs singly, yet were I to continue the use of such hives as necessitated reversing each brood-comb separately, I feel positive that I never should again use a frame that would not admit of reversing.

Some of our bee-keepers have paused to ask if there was not some serious objection to inverting combs. They had noticed that the cells were slightly inclined; that the workers nearly always built them in this way; and they believed that behind this almost universal method of construction, was a design for a purpose. Even if this be true (which I doubt), is it not quite evident that the designers are not aiming at our desired end; that they do not purpose "lots of surplus honey to sell."

Let us not forget that our bees always and invariably construct their combs so that the cells are in rows horizontally—not vertically. This is an unvarying rule, while the incline of the cell is not. Now, I found that by the use of

comb foundation, I could make them construct their combs with the cells running in rows vertically. Much of Dadant's excellent brood foundation is stamped in this way. Many believe that it is less inclined to sag, when so placed in frames. I have found by practical use of thousands of pounds of it, that the little worker, in so rigidly following her instinct in rowing the cells horizontally, was only "just trying to fool somebody." By the inversion of thousands of combs, I have proven that her less determination to incline her cells, belongs in the same catalogue with placing the same in horizontal rows. I think that the scientist has long since learned that Nature, when forming instinct in animals, is no more working for our interests than when she pours her rain-water back into the sea, while our crops are blasting and withering: or when she visits us with cyclones.

I know it is true that we cannot with impunity violate some of the instincts of our bees; that some of them run directly parallel with the ends we desire; but which are for and which against us, we must determine by experiment. I have satisfied myself that in the inversion of combs we violate no instinct which is favorable to our success. We do, however, encourage certain actions on the part of our bees, that greatly favors the desired result.

By virtue of this reversing we get our frames completely and solidly filled with comb, which metes out to us no less than six points of advantage which I will not consume space to detail. It also tends to keep the brood-combs the more completely filled with brood, the honey going into the surplus combs. When reversing is practiced, as we can well afford to do when we can reverse a whole set of combs with a single motion, it gives us great control over swarming. I find that the reversing of the surplus combs after I have learned the proper time to do it, is conducive of most favorable results. It causes the bees to more completely fill the sections, which is not only an economy, besides presenting a more attractive package, but adds greatly to the shipping-qualities of our surplus comb honey. It also stimulates hasty and complete capping of the combs.

During my experience in reversing combs, I have never yet discovered any ill-effects resulting therefrom; but besides the advantages above enumerated, I am always meeting with unexpected minor benefits resulting from the practice.

[CONTINUED NEXT WEEK.]

U. S. Friends will please remember that it costs 10 cts. per eight ounces for samples to that country. Such things as sample frames, sections, Manila Honey Boxes, come under this head.

FOR THE CANADIAN BEE JOURNAL.

HUMBUGGERY IN PATENT RIGHTS.

THE *Bee-Keepers Magazine* for Nov. and Dec., 1885, gives us a brief history of patent right humbugs in Australia.

Claims for patents on bee-hives and apicultural appliances have been made there and allowed too, on points "as hold as the hills." The state of things described in the *Magazine* is not alone confined to Australia. The U. S. patent office is continually besieged by self-styled inventors, for patents on apicultural articles, that to the initiated, or those familiar with the state of the art relating to bee-hives, bear on their face the stamp of antiquity.

As a matter of fact nothing of value has been patented for years that is really new; true some new combinations have been gotten up, by taking old ideas and working them into forms slightly different from those in which they originally existed; but the patents thereon possess no value, for the reason that they cannot be sustained; and he who pays his money out for farm rights, or in the shape of royalty on them, while not exactly swindled, is decidedly humbugged. I am in favor of protection by patent, of the honest origination of any one. I believe it a duty owed not only to one's self, but to the world at large, to obtain such protection as all governments offer to real inventors of new and useful articles. I believe too that is a duty that each of us owes to society at large, to expose humbugs of all classes, and my sole object in this brief article, is to call the attention of bee-keepers generally to the fact that all the patents of real value on bee-hives, &c., expired years ago by limitation, and that there are no patents now existing on the same, that possess more value than is found in those unpatented, or on which the patents have run out. I wish it understood that I make no accusations, but simply state facts. Patentees in their ignorance of the state of the art may, and probably many do think, they have got something new; but I do wish to prevent if possible the readers of the C. B. J. from paying out money for *nix*.

Foxboro, Dec., 1885.

J. E. POND, JR.

Thanks, friend Pond for your timely warning; there is no doubt that many patents are taken out and sold, which possess no value whatever, and are not even *original* although they may be considered so by the patentees. It is our determination to prevent fraud as far as possible. We fully agree with you when you say that there *are* original and valuable inventions which *should* be protected.

SUNDRY SELECTIONS.

REPORT ENCOURAGING.

ALEX. DUNCAN.—I was cleaned out of bees last winter; purchased bees by the pound to make seven good swarms and have them in the "Jones hive," double-walled with inch boards and inch packing of dried sawdust between, covered with woollen mats over a "Hill device;" over this dried leaves. Division boards in front and rear and dried leaves behind the rear board. A fly hole one by one-half inch is opened near the tops of the frames. Stores about two-thirds natural and one-third granulated sugar syrup. Had no increase during the season, being too late in purchasing, and got no surplus honey.

Bothwell, Dec. 17th, 1885.

J. R. KITCHIN.—I am but a new subscriber for the CANADIAN BEE JOURNAL and young in the bee business, last fall being my first attempt. I have seen so many pleasing reports in the C. B. J., from almost all parts of Canada, as well as the United States, I could not help but send you a report of my yard. I placed in winter quarters—in clamp—in the fall of 1884, 15 colonies. I lost all but four of them during the winter and spring, two of which were very weak. When I bought them I did not know anything about bees, but found out afterwards that they were not strong enough and that the stores they had were not good. I bought the colonies from a man who was here last summer and who sold out in the fall, he stops but one summer in a place then sells. Though having sustained such a loss I was not discouraged but invested in 7 more colonies in the spring of 1885, with which and the 4 I wintered I started anew and increased to 30 good strong colonies. I extracted 900 lbs. of honey and took off about 100 one-pound sections. The extracted honey I wholesaled at 12½c. per pound. White clover is plentiful in this locality and farmers are now sowing considerable alsike clover. Basswood bloomed but four days, from July 23rd to July 26th. We had as large a flow of honey the last three weeks of September as we had any other part of the season, from golden rod and boneset, which grow in abundance in this locality. The heavy frost which came on 5th of this month (October) has put an end to honey gathering for this year and I am at this date (Oct. 13th) preparing my bees for winter quarters. I think your JOURNAL is splendid and well worth the one dollar a year. May I ask why we cannot have the Canadian honey markets in it?

Alvinston, Oct. 13th, 1885.

PRICE LISTS RECEIVED.

J. B. Lewis & Co. Watertown, Wis. for 1886. Bee-Hives, Sections, &c.

C. M. Goodspeed, Thorn Hill, Onan Co., N. Y., Club List of leading papers and magazines for 1886.

J. W. K. Shaw & Co., Loreauville, Iberia Parish, La., for 1886. Early Southern queens a specialty.

HONEY MARKET.

CHICAGO.

Without any material change. White comb honey in one pound frames brings 16 cents; very fancy 17 cents. Dark is slow sale. Extracted honey 6 to 8 cents per pound. Beeswax 25 to 26 for yellow, market steady.

R. A. BURNETT.

Chicago, Nov. 27, 1885

CINCINNATI.

There is a very slow demand from manufacturers for extracted honey, with a large supply in the market, while the demand is very good for clover honey in square glass jars. Prices for all qualities are low and range from 4 to 8 cents a pound on arrival. Supply and demand is fair for choice comb honey in small sections, which bring from 12 to 15 cents per pound on arrival. Good yellow beeswax is in good demand and arrivals are fair. It brings 20 to 22 cents on arrival.

CHAS. F. MUTH.

Cincinnati, O. Nov. 10, 1885.

BOSTON.

Honey is selling very well but prices are very low, and we are often obliged to shade our prices in order to make rates. We quote 1 lb. comb, 14 to 16 cents. 2 lb. comb, 12 to 14 cents. Extracted, 6 to 8 cents.

BLAKE & RIPLEY.

Oct. 21, 1885.

THE BEEKEEPERS' LIBRARY.

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

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

A. B. C. in BEE CULTURE by A. I. Root. Price, cloth, \$1.25 paper, \$1.00.

QUINBY'S NEW BEEKEEPING, by L. C. Root. Price in cloth, \$1.50.

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

HONEY, some reasons why it should be eaten, by Allen Pringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers. Price, with name and address, per 1000, \$3.25; per 500, \$2.00, per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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

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

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

ADVERTISEMENTS.

In purchasing articles advertised in the "Canadian Bee Journal" please mention in what paper you saw the advertisement. Advertisers always wish to know which advertisements are most effective.

Beeton Printing & Publishing Co.,

FINE BOOK, JOB, & LABEL PRINTING.

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

F. H. MACPHERSON,
Manager, Beeton, Ont.

3-t.f.

120 Colonies For Sale!

Having too many colonies on hand I will sell the above number, all in movable frame hives, in first-class condition for wintering, and insured against fire. Purchaser can winter them in my cellar without extra charge. Address
J. B. LAMONTAGNE,
Box 964, Montreal.

GLASS JARS!

We have several gross of these jars ready for shipment by return freight or express, at the following prices:

		Gross.	Half gross
"Crown" brand"	1 Pint	\$14.75	\$7.50
" "	1 Quart	15.75	8.00
" "	1/2 Gallon	19.00	9.75

They are put up in half-gross cases—no charge for packing or cases.

D. A. JONES.

FRIENDS If you are in any way interested in BEEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE CULTURE**, with descriptive price-list of the latest improvements in HIVES, HONEY EXTRACTORS, COMB FOUND TIONS, 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

Queen City Oil Works!

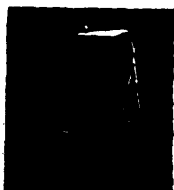
The Highest Honors and Gold Medal For Our

PEERLESS OIL,

Manufactured only by

SAMUEL ROGERS & CO.
Toronto, Ont.

BARNES' FOOT-POWER MACHINERY.



Read what J. I. PARENT, of CHARLTON, N. Y., says—We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-inch cap, 130 honey-racks, 500 broad frames, 2000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN

BARNES, N. 472 Kuby St., Rockford, Ill.

FLAT-BOTTOM 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.

SPROUT BROOK, MONT. CO., N. Y.

HONEY KNIVES.

We have just to hand a large shipment of honey knives from the makers, Lockwood Bros. Sheffield, England. These are undoubtedly the finest we have had made yet, being the most perfect in shape and neatness of manufacture.



These Knives are made of the Finest Razor Steel.

- Ebony Polished Handle, mirror polish.....\$1 50
- Ebony Polished Handle, glazed polish..... 1 25
- Wood Polished Handle, glazed polish..... 1 00

If by mail, add 50c. for each knife.
D. A. JONES, Beeton, Ont.



Electrotypes

We have them in stock, same as engraving, at 40c. postage 6c. They are good ones too.

D. A. JONES & CO.
Beeton, Ont.

THE INVERTIBLE HIVE

INVERTIBLE FRAMES,

- Invertible Surplus Honey Cases,
- Entrance Feeders, Top & Bottom Feeders,
- Hive-Lifting Device, Honey Extractors,
- Wax Extractors, Comb Foundation, etc.

My new Illustrated Catalogue is now ready, and will be mailed to all who apply for it. Address

J. M. SHUCK.
DES MOINES, IOWA.

BEEES AND HONEY

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

M. RICHARDSON & SON,
Port Colborne, Ont

APIARIAN SUPPLIES

MANUFACTURED BY

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

Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all styles of the **Simplicity Hive**, including the **Van Deusen-Nellis**. 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.

DOVE-TAILED SECTION.

Same price as one-piece. Also manufacturer of **VAN DERVOET FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**. Send for Illustrated Catalogue for **1885**. Free. Prices always reasonable. Mention this paper.

COMB HONEY PACKAGES.

THAT HOLD SECTIONS OF HONEY 4 1/4 x 4 1/2 IN.



We call these in our pricelist "Honey Boxes for Sections." Each box has a nice tape handle, and when adorned with labels "A" or "B," which are made to fit this package, they look exceedingly attractive. The price for boxes is: per 1000, \$20.00; per 500, \$12.50. The price of labels will be, extra, per 1000, \$3.50; per 500, \$2.00; per 100, 45c.

In the blank space at the bottom of label (see cut) is room for name and address of producer, and these may be printed in at the following extra charge. Per 100, 30c.; each subsequent 100 to 1000, 12c.; per 1000, \$1.25. Sample boxes, labelled, sent on receipt of a 3c. stamp.

D. A. JONES,
Beeton, Ont

BEE-KEEPER'S GUIDE, OR MANUAL OF THE APIARY.

11,000 SOLD SINCE 1876,

The twelfth thousand just out. 10th thousand sold in just four months. 2,000 sold the past year. More than 50 pages and more than 50 costly illustrations were added in the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-Keeping.

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

A. J. Cook, Author and Publisher,
State Agricultural College Lansing, Mich

THE NEW ONE-PIECE SECTION.

Though these sections cost more to make than the old style, still we are supplying them at the same price. We keep in stock 3 1/2 x 4 1/2 (ours), and 4 1/2 x 4 1/2 (Langstroth), and can make any other sizes to order on short notice. Prices:

- Per 1,000.....\$ 6 00
- " 5,000..... 27 50
- " 10,000..... 50 00

Sample sections sent on application.

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Beeton, Ont