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VOL. IV, NO. 2

1888

APRIL 4

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

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- THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.
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- BEEKEEPERS' GUIDE OR MANUAL OF THE BEE, by Prof. A. J. Cook. Price, in cloth, \$1.25.
- FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.
- A. B. C. IN CARP CULTURE, by A. I. Root, in paper cover.
- HONEY, some reasons why it should be eaten, by Allen Fringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers. Price, with name and address, per 1000, 3.25; per 500, \$2.00, per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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See advertisement on another page. We have just arranged for the sale of these machines, and we can quote a price F.O.B. cars at Toronto (duty and freight paid thereto). On application we will forward catalogue and pricelist free.

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Beeton, Ont.

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We will always be glad to forward sample copies to those desiring such.

Send us the names of three subscribers with \$3 in cash and receive 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.

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

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

Subscription Price, \$1.00 per Annum Postage free for Canada and the United States; to England, Germany, etc, 10 cents per year extra; and to all countries not in the postal Union, \$1.00

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All advertisements will be inserted at the following rates

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"American Bee Journal," weekly.....	1.75
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"Bee-Keepers' Magazine," monthly.....	1.40
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"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

TO CONTRIBUTORS

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

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

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

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

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BEES

ITALIAN BEES and Queens, 3 frame nuclei, full colonies at the very lowest rates and safe delivery guaranteed. Send for catalogue to E. T. Flanagan, Belleville, Ill.

FOR SALE.

We offer for sale 200 lbs. of Minion, good face, suitable for Mailing Lists. The whole lot, including an extra supply of quads, caps and figures, we will sell at 18 cents per lb. Can deliver at once.

THE WORLD.

Beeton, Ont.

BEESWAX WANTED

Will pay 30 cents in cash or 33 cents in trade for any quantity of pure Beeswax.

Comb Foundation for sale, to suit any size frame or section. Wax worked on shares or for cash. All freight to Campbellville station C.P.R. If by mail to

ABNER PICKET,
Naasagaway P.O., Ont.

Agent for D. A. Jones Co.'s supplies.

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 bee hives, 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 544 Ruby St., Rockford, Ill. 27

THE BEE-KEEPERS'

REVIEW.

For February is now out. (It has been delayed by the serious illness of its Editor.) The special topic of this number is, "Temperature" as applied to Bee Repositories. So much information upon this topic has probably never before been gathered together into so small a space. The treatment is exhaustive, and it would seem that nothing more need be said upon the subject.

Among the contributors to this number are such men as R. S. Taylor James Haddon, H. R. Bowdman, T. F. Bingham, J. H. Martin, J. A. Buchanan, and C. C. Miller.

Several pages are devoted to Editorials upon a variety of live topics. There are also choice extracts from the writings of Prof. Cook, C. W. Dayton, C. C. Miller and others.

A detailed list of contents will not be published, as a copy will be cheerfully sent to all who ask for it.

Price of the REVIEW 60 cents a year.

THE PRODUCTION OF COMB HONEY.

A neat little book of 45 pages, price 35 cents. The REVIEW and this book for 65 cents. Stamps taken either U.S. or Canadian. Address

W. Z. HUTCHINSON,

Flint, Mich.

-QUEENS WANTED-

Tenders will be received by the undersigned up to the first day of May for between 150 and 200 purely mated and fertilised Italian Queens. They are wanted by the Directors of the Ontario Bee-Keepers Association. One queen must be mailed (post paid) with the usual attendant bees and provision for safe transit, to each member of the Association not later than the first of July next. Parties wishing to compete for the furnishing of these queens will please state lowest price. The successful competitor will be furnished with the names and addresses of the members; and must give satisfactory security for the due fulfilment of the contract. The lowest tender not necessarily accepted.

Address

R. McKNIGHT.

Owen Sound.

March 29th, 1888.

BEES 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

100 COLONIES OF BEES FOR SALE OR EXCHANGE.

For Bee Supplies or anything that I can use. Beeswax wanted. Dealer in all kinds of Bee Supplies.

JAMES ARMSTRONG,

CHEAPSIDE, ONT.

BEES FOR SALE!

I will sell about 50 colonies of bees at the following rates:

- 24 and under \$7 50
- 25 and over 7 00

They are in Jones' S.W. and Combination hives. FOR DELIVERY IN MAY at Beeton or Alliston R.R. station.

SAMUEL BRAY, Beeton, P.O.

ITALIAN QUEENS.

Tested, ready in March. Untested, by April 1st. Contracts taken with dealers for the delivery of a certain number of queens per week, at special figures.

FOUR-FRAME NUCLEUS,

with pure Italian queen, containing 3 pounds of bees when secured—in April and May, \$4.00; after, 25 cts. less. Safe arrival and satisfaction guaranteed on all queens and nuclei.

Early Bees from the south shipped to Canada without loss.

For more particulars, send for Tenth Annual Catalogue.

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BAYOU GOULA, IBERVILLE PARISH, LA.

PRACTICAL BEE-KEEPER.

In time to begin season to go to the North-West in charge of 50 colonies of Bees. Apply to

The D. A. JONES Co., Ltd.

BESTON, ONT.

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Supply Men, Foundation Dealers,
and Bee-Keepers,

SEND FOR ESTIMATES FOR WHATEVER
YOU REQUIRE IN THE WAY OF

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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., Ld.,
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EXCHANGE AND MART.

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

50 HIVES of bees for sale. Price \$5 per hive
Any person taking the lot. Apply to G. L.
PEARSON, Clarksburg, Ont.

WANTED—A situation wanted by an experi-
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Box 78, Woodstock, Ont.

WANTED.—Young man who has had some
experience in apiary. Willing to make him-
self generally useful. For particulars address
WILL ELLIS, St. Davids, Ont.

HONEY.—We can take all that offers in ex-
change for supplies, at prices found in an-
other advertisement in this issue. THE D. A.
JONES CO., Beeton, Ont.

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

READ THIS.

25 PAPERS' GARDEN SEEDS AND THE BEE-
KEEPERS' ADVANCE.

One year for only \$1. These seeds are just such seeds
as everyone having a garden wants and buys, paying
5c. to 10c. per package, the retail price of the seeds is
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at about half price to introduce both to Canadians.
Seeds will be sent post paid and we guarantee satisfac-
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J. B. MASON & SONS,
Mechanic Falls, Maine.

'Practical Hints to Bee Keepers'

Sent free. Address

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Wenham, Mass, U.S.

5 Per Cent Discount

On sections until May 1st. Send for free price
list of everything needed in the apiary. Foundation
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Sample section on application.

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SPECIAL NOTICE.

I have moved to Shelburne, and have purchased a
very large factory. It is the largest factory in which
bee supplies are manufactured in Canada. Our dry-
kilo cannot be surpassed. We are ready for a rush;
Sections away down. The best manufactured Founda-
tion in Canada will soon be ready to ship. Send for
Price List before purchasing elsewhere.

S. F. HODGSON & CO.,
Shelburne, P.O., Ont.

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THE

BEE-KEEPERS' ADVANCE

—AND—

POULTRYMEN'S JOURNAL.

Only 25 cents per year, sample copy free. Address
J. B. MASON.

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D. A. FULLER, Cherry Valley, Ills.
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J. A. ROBERTS, Edgar, Neb.
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GEORGE E. HILTON, Freemont, Mich.
J. M. CLARK & CO, 1409 15th St., Denver, Col.
and numbers of other dealers. Write for SAMPLES FREE
and Price List of Bee Supplies. We guarantee
every inch of our Foundation equal to sample
in every respect. Everyone who buys it is pleased
with it.

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



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

VOL. IV. No. 2 BEETON, ONT., APRIL 4, 1888; WHOLE No. 158

EDITORIAL.

THE first number of the *British Beekeepers' Adviser* is at hand. As we explained some weeks ago, this is a monthly designed especially for cottagers, and published at the very low price of 3c. per number. It will fill a niche in bee-keeping which was vacant until now.

Mrs. Ellen S. Tupper died on March 12, 1888, at El Pasco, Texas, so says the *A.B.J.* Her name was well known in bee-keeping circles.

Here is an item which is floating around through the local press of Ontario: "Prof. Root has a standing offer of \$1,000 for a sample of manufactured honey in the comb." This should have a good effect on the industry, and help to dispel some of the ideas people have got about artificial honey, even though the paragraph isn't "just in shape."

The directors of the O.B.K.A. at their meeting held in Toronto on the 28th ult. decided that the amount of a grant to local associations be \$35.00 on condition that they become affiliated with the parent association on or before the 1st of August. According to the constitution and by-laws the date for affiliation was placed at the 1st of November, the object being to give such associations representation at the annual meeting held in January. It

was decided however that in order to have the best use made of the grant that the affiliation should take place before the 1st of August. This will give the local associations an opportunity of expending the grant in the way of prizes for exhibits of honey at their local fairs, also for exhibits of apian appliances. Clause 9 of the constitution sets forth the way in which the money is to be expended. The prize lists of the local fairs are generally printed during August, and to have all the proper arrangements made it was thought necessary to change the date. All the local associations which have any idea of becoming affiliated should take steps at once to carry out all the necessary requirements so that all the work may not be left until the last moment. If the grants of the association are wisely expended there will be much good done and the interest in the honey exhibits at local fairs will be enhanced.

All members of the O.B.K.A. for the year 1888 will receive a good home bred Italian queen, as in terms of the motion which will be found on another page. The object is for the purpose of the introduction of new blood into the apiaries throughout the country. It will, of course, be necessary that those who receive queens should be members of the association before the date specified. As will be seen by advertisement on another page tenders will be received

from the queen breeders throughout the country for this supply. There is hardly any bee-keeper but who will be wanting a queen during the coming season and there is no better means of obtaining one than the above, and at the same becoming a member of the O.B.K.A. We should be glad to have every reader of the C.B.J. residing in Ontario forward their dollar to the Secretary-Treasurer at Streetsville, at once.

Ontario Bee-keepers' Association.

DIRECTORS' MEETING.

THE meeting of the Directors of the O.B.K.A., was held at the Albion hotel, Toronto, at one o'clock on the afternoon of Wednesday the 28th March, pursuant to notice of the President. The meeting was called for the object of deciding what amount should be paid to local societies by way of a grant from the parent Association; for the purpose of deciding on what each member of the Association should receive; and for the transaction of general business.

There were present M. Emigh, President; J. B. Hall, Vice-President; W. Couse, Secretary; R. McKnight, Treasurer; J. K. Darling, Allen Pringle, A. Picket, F. A. Gemmell and R. E. Smith.

The President called the meeting to order, and after the minutes of the former meeting were read and confirmed, the following communications were received. A letter of resignation from Mr. E. Schultz, director for District No. 13; letters of acceptance of the honorary membership conferred upon them were read from Hon. Sir Charles Tupper and the Hon. A. M. Ross.

The resignation of Mr. Schultz was accepted and the President appointed F. H. Macpherson in the place and stead of Mr. Schultz for District No. 13 for the balance of the year.

The the amount of the grant to affiliated associations was next taken up. The Secretary gave information to the effect that two local associations had already applied for affiliation, viz.: "Brant" county and the "Western Ontario," with the probability of some three or four others coming in very shortly. After some discussion it was moved by Allen Pringle, seconded by

A. Picket that the amount of grant to be paid by the O.B.K.A., to affiliated societies for this year be \$35.00.

It was next moved by Mr. Pringle, and seconded by Mr. McKnight, that all duly qualified local societies must apply for affiliation on or before the 1st of August next in order to avail themselves of this grant. Carried.

It was decided that the members for 1888 receive a good fertile Italian queen, supposed to be purely mated, the same to be delivered on or before July 1st, the object being the introduction of new blood into the apiary.

The President, Secretary and Treasurer were appointed a committee for the purpose of arranging for the supply of queens to the members of the Association.

The question of granting prizes in the aparian department of the Industrial Exhibition came up for discussion. It was moved by Mr. McKnight, seconded by Mr. Picket, that the O.B.K.A., offer a prize of \$25.00 for the most tasty and attractive display of honey, the display to be the production of the exhibitor, provided the the Industrial Exhibition Association supplement the grant so as to make the premium \$50.00. Carried.

The Treasurer was instructed to secure a corporate seal for the Association.

The accounts of the D. A. Jones Co. for printing, and of S. T. Pettit were passed and paid.

The meeting then adjourned to meet again at the call of the President.

For the Canadian Bee Journal.

Items on Bees and Other Subjects.

PROMISED when you did me the honor of paying me a visit when you were in England, to send you an article or two for the BEE JOURNAL. I have had so much on hand, and the past year has been such an exciting one in making discoveries and inventing new things, I have never felt composed enough to write. However in this I intend to say a little on a number of items, rather than write a long letter on one subject.

Mr. Daniel McFadden, page 654, may be quite right. Singularly enough, I once got hold of the same idea. One winter after a long and hard frost, I found the bees in one of my straw skep hives (i.e., one similar to that shown in the left hand scale on title page of JOURNAL,) to show no

signs of life. I turned it up to see, when the bees seemed quite dead. I took it home—a distance of three miles—and three days after I turned all the combs out, the bees I brushed into an empty skep, and set it near the fire. Judge of my surprise, to find a few hours afterwards, the bees all alive, queen included, and they had certainly seemed quite lifeless for three days at least. Now, it seems to me, that instead of declaring McFadden a "humbug," it would be better to investigate the matter. Say someone went there next fall, saw the bees packed up, and stopped all winter till they were taken out and got to work. Prof. Cook relates that he once had a stock of bees hermetically sealed all over with frozen water or ice, yet they wintered quite safely. I never could see how they could do this and yet not hibernate. If McF. is right, then the matter can easily be explained, as no air can get through ice. You can make a magnifying "glass" of clear ice, and it will also be a burning glass too—rather curious, is it not, that the sun's rays, after passing through one piece of ice, will melt another piece, and even set things on fire.

If I were you, I should certainly close with him for that 6,000 lbs. of wax. If it comes to hand all right, it will show that they have both bees and honey. If it is of good color and quality of course you will want to keep it; if it is dark, or even black, so long as it is pure beeswax, you may send it on to me, I can find a market for any pure beeswax, no matter what its color is. So now you have no excuse for not buying the wax, even if it is buying the "pig in the bag."

LINDEN OR BASSWOOD.

You seem a little exercised over these names for one tree; for as a matter of fact, the American basswood is not the same as the European linden. Though the shape of the flower and the leaf is the same, it is a much more robust grower, the leaves are larger, and of a much darker green, and when grown side by side with the European *Tilia*, it blossoms fully a month later, viz., at the time our heather is in full bloom. Some years ago the American variety was extensively propagated, by grafting on European stocks, these grafts are now twice as thick as the stocks, viz., the latter is 12 inches thick where the former is two feet. I think in a few more years they will all be "strangled," however, there are many being planted out now on their own roots, as they form a pleasing contrast to our native kind, so that in a few years we may be able to produce basswood honey too. Now, what I wish to point out is this: if your basswood is not really the same as the linden, is it wise to call it by that name? There is enough confusion between the Old and New World

already, and it seems to me on a par, to deciding to call cabbages "turnips."

HEATHER HONEY.

You will remember that we had a very dogmatic argument on this subject. You would have it that the extra thickness of above, on account of which it will neither extract nor drain away, is caused by a resinous gum, rising with the honey from the plant. You will be interested in hearing, I now think you are right, and what makes me think so, is this: Last summer was very dry, so much so that everything seemed burned up, and no honey anywhere. I had fully given up the heather as a failure, when it began to rain; enough fell to soak into the ground about four inches—which just damped the heather roots—it then came hot again, and, oh, my! did not the bees work. It kept fine just seven days, in which time they filled all their combs. The strange part was, while warm, the honey would throw out in the extractor, also when cut, it would drain; the color, instead of being a deep brown was a pale straw, and the flavor was very mild indeed, and it had this peculiarity also, it was very much thicker when fresh gathered—ordinarily heather honey is as thin as water when fresh gathered. I account for it in this way: had the ground been very wet, then the sap with its resin would have predominated over the honey, but as it was only just sufficient to allow the honey to flow at all, then of course the honey element was the greatest factor. Now, don't you think that the flavor of all honeys is caused by a corresponding resinous sap rising with it? I have frequently noticed when the sycamores are in bloom the honey to vary in color between nearly a pure white and a dark olive green.

SYCAMORE MAPLE.

We have only two native maples, though the American varieties are being largely introduced. One is called maple, and is of very little value to bees, the other is called sycamore, and is, I believe, the finest honey yielding tree in the world. It keeps in bloom from three to six weeks, and here follows apple bloom. The size and shape of the leaves are just the same as your sycamore maple, but the blossoms more resemble the mignonette, with this difference they are greener in color and hang downwards, nor do they open until the leaves of the tree are fully expanded. The honey is nearly always of an olive green color, and is very richly flavored, so much so, that some pronounce it sickly, and some beekeepers, who cannot of course get their bees in in order to harvest it, say they would not have it at any price. However it is the honey I like best of any, and

what nine-tenths of everyone I meet like best, so that it can't be a *bad* honey. The timber is very valuable here, being close grained, white, and not inclined to crack or shake. It is what is used for the backs of all the best violins made in Europe; so if you want to see what it is like, examine the first good fiddle you see. If you would like to try if it will grow in Canada, I shall be happy to send you some seeds. In my opinion I think it is the best honey plant you could introduce. It blooms between apples and raspberries and gets bees in fine order for the clover, while the heather—if you introduce it—will be in bloom during basswood.

INTRODUCING FERTILE QUEENS. THE HALLAMSHIRE LAW.

For a long time now I have been trying to drive a simple law into British bee-keepers, by means of which *anyone* may safely introduce a fertile queen without any caging. I have met with the greatest opposition by all who profess to be authorities on bees. It is declared to be absurd, and all the abuse possible has been heaped on it, and yet, if every bee-keeper in the world was to get up and say I am wrong, I would still affirm its truth; also if I wanted to convince anyone that I knew a little about bees, I would prove it by putting this simple law in motion. Here it is: If bees have no queen and no means of rearing one,—that is they have no eggs, unsealed brood or queen cells—they will accept another, either dropped in at the top or given at the entrance, providing they have been in such a condition forty-eight hours. This law is infallible with bees of any age, at any time of the year, or day or night, and no matter how long they have been queenless, it will never fail, as long as the queen is simply given as stated, and no caging or doctoring is resorted to. Virgin queens can also be introduced same way, providing they are given at dark. If given in the day time and they have been amongst bees, though they are not molested, they take fright and run out of the hive.

I call this the Hallamshire Law. All my acquaintances are using it, and I know also very many more are doing so, having first tried it out of curiosity. I know it runs direct in the teeth of the teaching of many. It seems something like putting your hand in red hot lead, which can be safely done as long as the lead is red hot. Many old lead workers think because they know just melted lead will burn severely, it must burn much more so, if it gets red hot. Here we see the same standard of reasoning, if old and long queenless bees will not readily accept, a new queen by means of caging, they at once think it

would be so much worse to try to do so without the cage.

When I wish to introduce a queen and I do not happen to have a stock in the right condition, I simply remove the queen and all the combs containing eggs or brood; the brood combs I distribute amongst other stocks or use them in other ways; if there are not enough combs left I give more. Sometimes I divide the stock, putting the queen, brood, and half the bees in a fresh hive on another stand, then in 48 hours I give the bees the queen. I drop her in at the top and listen for a loud buzzing noise; if I hear it, the thing is done; if not, or if she happens to be balled if given at the entrance, I examine the hive for a stray queen. I have found very many stocks to re-queen themselves, particularly in the swarming season, when new mated young queens are about. Another system of direct introduction has been much puffed in this country, in which the queen is given at night (after thirty minutes fasting) of the same day the old queen is removed and without any brood or eggs remaining. This plan seems identically like what was first published by Mr. J. E. Pond, jr. Last season I carried out an elaborate course of experiments, to see what merit there was in it, and how much better it was than my law, as nearly all the boasted successes with the system were quite in accordance with it, *i.e.*, the bees had been broodless and queenless more than forty-eight hours. Well, here is the result. On carefully examining the hives on the third or fourth day, I invariably found queen cells; on the seventh or eighth day I found them sealed. If the queen was heavy with eggs, or in full laying when first given, she would always present the appearance of a non laying queen, proving conclusively that the bees had not accepted her as the new mother. After the cells were sealed she was generally allowed to destroy the nymphs, and in about eleven days she would begin to lay again. This was the rule, the exceptions were, that the queen cells were well protected right forward. In one I tore down, the nymph was fully matured and marched about in my hand, though the queen I had given was quite safe, but in many cases the queen introduced disappeared about the eighth day.

I had much better success in removing the old queen by lamplight at night, and giving the new queen at the same time, without any preparation whatever, but even in this case, queen cells were started.

The party under whose name it is put forward in this country, admitted in the *British Bee Journal* last summer, (see June 23, page 267,) that the bees showed signs of queenlessness and often

started queen cells, which he denied were sealed. I am quite satisfied they are all first sealed before the new queen is allowed to destroy them, therefore, considering such an enormous loss in egg-laying, 10 or 12 days, and 25% loss of queens, I claim that my law "bosses" them all. If the queen is in laying condition, she is immediately accepted and she goes on laying, if not so, then she is stimulated by the bees, and in two days is in full lay.

Following the clue up, by giving queens at dark, and virgin ones running away at day time but staying at night, by "Pond's system," queens cells having started, I thought virgin queens might be accepted in normal stocks as soon as the old queens were removed, and, trying the experiment, I did not find it to be true, but I found if I allowed at least 24 hours between removing a laying queen and dropping in a virgin queen, (which, of course, must always be done at night), I was always successful. I am not sure that the plan will never fail, but still it is of such success, to open up quite a new practice in honey raising; viz.: say one works his stocks up to swarming condition with the old laying queen, then he removes her and gives a virgin in her place, or if he does not like the delay in egg-laying, then he can make up a nucleus alongside, and as soon as the young queen begins to lay and remove the old one and unite the young one. With a young queen of the current year, there is very little inclination to swarm, or rear drones, and there is no idling during a honey glut because they have the swarming fever on.

Now, Mr. Jones, I want you to try this law of mine. I give you my solemn word that it will never, NEVER fail, and if you can persuade the Canadian bee-keepers to try it, you will benefit them by many, very many dollars. Also they will be ready to accept a few more things I can give them.

You will find more particulars of the "law" in the pages of the *British Bee Journal* for 1886. In that for July 15th, page 318, I give eight ways of applying the law. Also the *Journal of Horticulture* for '85, '86 and '87, the oldest bee-paper in the English language.

The first opportunity bee-keepers will have of practising the law will be when looking over their stocks for the first time in the spring; some will be weak and have a queen all right, others will be strong, yet without a queen. Now, all that is necessary is to offer any stock that is suspected to be queenless, a queen—just drop her on the comb amongst the bees, say one from a weak lot—when if they are queenless, the bees will at once commence a peculiar hum, something like the swarming hum. I am not sure

that they do it for joy, but to communicate the fact that they have a queen to all their companions, for if a comb is held 12 or 18 inches above the hive, and the queen dropped on almost at one instant the bees on both sides will be seen to be vibrating their wings, also those in the hive below, and proving conclusively to me that bees have a language and that they can hear. If the bees really have a queen, they will at once "ball" the stranger. So here is a sure test as to whether the bees have a queen or not, and will save a lot of time in examinations, stocks or colonies. It is remarkable how you persist in calling stocks of bees, "colonies," dubbing every hive stronger than a nucleus such, and for what should be called a colony you have to employ a purely Latin word to describe it. In England, we describe hives of bees as follows: All those which have stood the winter are called "stocks," for the simple reason that they were kept for stock, not because they are "stuck" on a stool, as once contended in the *A.B.J.* The first swarm from a stock is called a "swarm," a second swarm, a "cast," a third swarm, a "colt," a swarm from a swarm is called a "virgin swarm" etc., and by these names a bee-keeper always refers to his bees. He will tell you how many stocks he has, how many swarms, how many casts, etc., and thus we instantly know his strength; also when he says he keeps 20 stocks we instantly know this is the number he wintered. At the end of the season he examines his "stocks"; if too light for wintering, he condemns them, then he examines his "casts," to see if any will do for stocks. If he still fails to make up his number, of stocks he selects them from the swarms, and having done so, he calls all he has reserved to stand the winter "stocks" because they have to produce his future profits. All the others are "condemned," either for the sulphur pit or the driver, that is a man who makes a practice of going around "driving" the bees out of their hives.

Now, the word "colony" means a community that has not sufficient strength of itself to maintain its own existence, e.g., our own "colonies" and a queen-rearing nucleus, a number of colonies united may do so, viz.: the United States and a lot of queen nuclei united into one good stock. So when I speak of a colony of bees, I mean a few bees by themselves in a separate hive, while one that is capable of yielding a profit, I call a "stock," the proper English name.

A HALLAMSHIRE BEE-KEEPER.

Your letter is interesting, and we are sure will prove pleasant reading to all. That 6,000 lbs. of wax will never be realized on, at least that is the conclusion to which we have come. Daniel

McFadden and his whole story is, in our estimation, a "myth." We have looked up considerable evidence on the point, and if our conclusion is wrong we will be glad to admit it.

The interesting account of the difference between European and American basswood is very instructive. We have noticed that grafts placed on stocks of would grow much is would grow much faster than the stock itself, but we think with you that our Canadian bass-wood grows much faster than the European linden but we think you must have two species of linden even in Europe. When we were visiting C. J. Grovenhurst, Brunswick, Germany, there was a large park in front of his residence where linden trees had been planted and they had grown as large as any forest trees. The leaves of these seemed much smaller, and the twigs finer, in fact they appeared like a different variety.

HEATHER.

We think we simply advocated the theory advanced by Mr. Cheshire and Mr. Raitt in regard to heather honey. We cannot speak from experience, as our knowledge on the subject has been gathered from others.

SYCAMORE.

Our Hallamshire friend has kindly sent us a few seeds and we shall endeavour to grow and test them. As they are propagated very easily, we see no reason why we should not be able to secure these trees for our parks, lawns, roadsides, etc. After we have given them a fair trial we will say something more on the subject.

INTRODUCING QUEENS.

We have ordered our foreman to give your entire "law" a fair trial and report. If any of the friends will do the same it might assist in determining how this matter will work in this country. We have frequently taken combs from queenless bees and introduced queens without any trouble and we have never had any trouble getting queenless colonies to accept virgin queens when they were hatching or just hatched.

Our "Sundries" department, though only in going order for a week or two, has proved a decided success. We are getting good orders every day.

FOR THE CANADIAN BEE JOURNAL.

WIRING FRAMES.-- MOISTURE IN CELLARS.

WIRING FRAMES.

WHIS is one of several things which to the novice, disturbs the gentle current of his nature. Perhaps the wire unrolls too quickly, and the loose part slips over the ends of the spool; or the frame-holes may be poorly punched; or the wire kinks and breaks, and then the young (and sometimes old) bee-keeper may realize that "things are not what they seem." To remedy these evils, see to it that the frame's holes are smooth.

SMOOTH HOLES

can be procured by awls, (a) chisel pointed; (b) set to cut across the grain of the wood; (c) made of steel wire filed to suit and fitted in metals from shoe-maker's awls; (d) should descend vertically and rise in the same plane; (e) five awls may be worked at once, thereby punching a top bar at one drop of the foot. Slipping of frames should be prevented by tacking short strips of wood upon the table. Spools should be on a wire and prevented revolving too rapidly by means of a thin strip of wood, tacked at one end to the table; the other end resting lightly upon the spool. The strip also prevents the wire slipping over the ends of the spool.

KINKING OF WIRE

can now be prevented by screwing empty thread-spools to the table at each end of the frame. Place the thread-spools a little from the frame between the holes as needed. For five strands three are sufficient. To tighten your wire tack the threading end; with one hand hold the wire between the wire-spool and frame and draw, as you remove with the other hand, the wire from the thread-spools, commencing at the attached end first. Complete by the usual way.

FASTENING FDN. ON WIRES.

Several methods have been advocated, some, no doubt, serving the purpose very well. The following will be found efficient, simple and speedy: See that your frames have a neatly-fitting, solid and level wiring-board, and your fdn. is of proper temperature.

WIRING-BOX.

Around a piece of hard wood (oak), well-seasoned, $2\frac{1}{2}$ in. and as long as your wire between the bars, wind a soft wire tightly, (one-eighth inch is a good size) having the laps one-half inch apart; keep this damp when using. Place the edge of the wiring-bar on each wire and by a gentle tap from the hammer the work is completed—if the other joints were not neglected.

DEGREE OF MOISTURE IN CELLARS.

This is a question which is constantly coming up in the journals. One writer prefers a damp,

warm cellar; another a cool, dry; some either dry or warm apartments with normal temperature; others winter over running water. Anomalous and confusing as this at first sight appears, the differences in the degrees of moisture may not, however, be great, or, if real differences do exist, it must be patent to many that success with this diversity must be due to something apart from the question of moisture. A few propositions will best serve my purpose.

1. Saturation depends on temperature. The greater the heat of the atmosphere, the greater is its capacity to retain moisture and *vice versa*.

2. Condensation takes place only on surfaces of lower temperature than that of the surrounding air; currents of air from the outside not being allowed to enter.

3. The degree of saturation comfortable to man is from 65 to 70%. More than this checks evaporation, while less unduly increases it, producing thirst and a parched condition of the skin.

4. Nature's method to maintain saturation is to expose surface of water, e.g., in North America we have large lake surfaces.

5. The atmosphere of health resorts is remarkable for uniformity of temperature and constancy of saturation.

6. Spring is fatal to consumptives—the air being too dry.

In spring the sun's rays having more power increase the temperature of the atmosphere, and therefore its capacity for moisture.

The ice, snow and frozen ground keep the temperature of the water on the surface too low for evaporation sufficient to meet the demand. An unusually dry atmosphere is the result.

7. Health resorts are in the neighborhood of bodies of water in some form, and have about the proper degree of saturation.

If these propositions are true, the lessons to the bee-keeper may be enumerated:

(a) Repositories should be of uniform temperature. (b) The saturation should be constant. (c) They should have dry exteriors, i.e.: walls and floors. (d) Vessels containing water should be exposed in the repositories to allow evaporation when needed. (e) Currents of air should be prevented. (f) Hives should be comfortably full of bees. (g) Running spring water, if the spring be near, is a benefit; air, other than that contained in the water, not being allowed to enter.

E and G condemn improper, but say nothing concerning proper ventilation.

R. KNECHTEL.

Walton, Ont., Mar. 27, '88.

For the Canadian Bee Journal

Good Season's Work.

COMMENCED the season of 1887 with sixty-eight colonies in fair shape for work and increased to ninety-seven, sold two swarms as they came off, and one left for the mountain. I took up to the 16th July 4,600 lbs. of extracted honey all well ripened before taking, and fifty-six lbs. comb honey, reserved 700 lbs. in well sealed combs for the fall if needed to supply winter stores when fixing up for winter. I had to give about 400 lbs. to have ample stores for winter. I fixed up fifty the last week in

September for winter, the balance on hand, forty-four, the first and second week in October. They seem to have wintered well so far as I could see as they are packed on summer stands. I lost three colonies in February the time of the blizzard, they were in the row next the fence and got drifted over; after the storm was over I went out to the yard and could hear the roar of the bees in this drifted row. When I dug away the snow I found large clusters of bees on parts of the hives and the entrance way, which is six inches, filled with bees and the honey running out of four hives three of which had all the combs melted and most the bees drowned in the mass. My hives mostly had very strong colonies in them, for I use double story hives for extracting. My mode of wintering is: I build boxes six inches longer than the hives all round and two feet six inches deep, then I put six inches of dry sawdust in the bottom, set in my hives, place on top of it a rim made of boards ten inches deep the size of the outside of the hive, then fill up all around with dry sawdust to top of rim then fill the rim with dry wheat chaff and throw over it two inches of sawdust and cover all up with a tight lid sloping four inches to the foot and don't unpack until the fruit bloom is out.

W. J. HONEYFORD.

For the Canadian Bee Journal.

That Rudimentary Food Gland.

MR. Pringle says on page 1031 "I have read Mrs. Chaddock's letter in the last JOURNAL, and am pleased to know that she really does accept the principle of evolution no less than Prof. Cook and myself—if not more so." But Mrs. Chaddock must pardon me (i.e. if I am wrong) for interpreting this confession of faith on her part as *ironical*, because the position she takes cannot be reconciled with the facts and philosophy of evolution." So Mr. Pringle is pleased, is he, that I accept the principle of evolution along with Prof. Cook and himself—we three and no more—I never knew before that there was any patent on the evolution theory. In my "prejudice" I thought that the evolution theory was free to all, and any man might walk in and help himself. But if there is a patent on it and Mr. Pringle and Prof. Cook object to my accepting the evolution theory, I am sure I sincerely beg their joint pardons, and promise never to do so any more. I will be like the little boy in Sunday School who, when the superintendent asked in a loud voice "Who made the world?" answered in a frightened, agitated tone, "me, sir, but I won't never do it again." But Mr. Pringle doubts my sincerity when I say that I believe in the evolution theory, because of the position that I take. I suppose that in order to prove that I believe the evolution theory, I must swallow everything that Prof. Cook, Mr. Darwin and Mr. Pringle says (I mention Mr. Pringle last on the ascending scale principle) and smack my lips and say "good, good, say it again."

Evolution teaches that man descended from some animal (descended here means ascended or else we are all in a pitiful plight), some of the scientific men say baboons, some say lemurs, I accept this view. I believe that our ancestors

were apes or some other kind of four-footed beasts, (some scientists claim that man lost some advantages in assuming the upright position—that the valves in the veins are not placed right when a man stands erect but are right when he gets down on all fours—and the great prevalence of hernia is instanced as another of the ill consequences of man's assuming the walk of the gods, that they lived in trees or logs, and ate fruits or worms. That is easy to believe. But I am not obliged to stop just where these scientific men stop, am I? Can I not go little ahead of them if my brain lets me without a permit from either Mr. Pringle or Prof. Cook? Darwin's was a great mind, and he did wonders for his century, for all the centuries that are to be—but I am not going to pile Darwin's books about till I cannot see over, and when I am asked a question, look into them and if Darwin says "no" or *does not say anything in particular*, make my answer "no" or *not anything in particular*. Prof. Cook did not answer my questions at all—he simply wrapped his scientific mantle around them and laid them away on the shelf. He did a little better when Dr. Proctor asked him almost the same questions. I asked Prof. Cook then, and I ask him now, if it is possible to hatch out a queen bee without that rudimentary food gland. Every worker egg must be supplied with the nutriment that will congeal into all the necessary organs of the worker bee and as queen bees are hatched from worker eggs they are obliged to have this gland in some form, it is there and it cannot get away—will Prof. Cook please tell me how? Then if this gland is in the queen-bee because it cannot help itself, how can evolution have anything to do with it? Nothing at all. It seems to me that Prof. Cook cannot help seeing this, even if he is steeped ten times over in scientific books. Prof. Cook quotes Prof. Le Conte as saying, "It is as irrational to talk of evolutionist as it is to talk of quotationist." This quotation was not meant for me (I think) as Mr. Pringle seems to suppose, as the C.B.J. containing my reply to Mr. Pringle and the A.B.J. containing Prof. Cook's reply to Dr. Proctor are both dated March 7th (unless the proof sheets were forwarded to Prof. Cook.") I suppose it was thrown out as a general warning to everybody in general but no one in particular. And with all due deference to Prof. Le Conte, (and I bow low and speak with bated breath whenever I say the word Professor) I still cling to being an evolutionist. If I have newer and better thoughts to-day than I had yesterday, then I am an evolutionist. If I believe what I read on a subject, and then go ahead of what I read and add something to it out of my own brain, then I am an evolutionist. Or if I read, and *do not believe but evolve* a reason that is plainer than the one given, then I am an evolutionist. This is why I am more of an evolutionist than Prof. Cook is. Prof. Cook believes in the evolution theory as other men teach it; believes in it so much that he puts props under it, that it does not need, and thus teeters it over to the other side; but he does not go a hair's breadth beyond what the books say; he would lay aside his Professor's gown and resign his office sooner. Calling a man, or a hundred thousand men "irrational" proves nothing, anybody can call names.

MAHALA B. CHADDOCK.

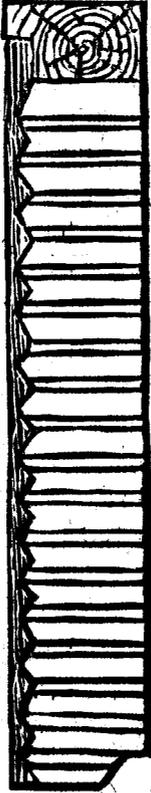
From the British Bee Journal.

One Side Cell Comb Foundation.

UNDER the heading "A New Artificial Comb," we gave on page 7 of the *B.B.J.* for this year, a letter from M. Koerbs, respecting a new comb which he had discovered, and which he stated could not be used for brood-rearing, and also the remarks of Mr. Gravenhorst respecting it taken from the *Deutsche Illustrierte Bienenzeitung*. This announcement has, naturally enough, caused a great deal of talk, and many speculations and "guesses" as to what this artificial comb could be have been the result. The article was inserted after some correspondence with M. Gravenhorst about it, and a promise from M. Koerbs to send us a sample comb for inspection if we would keep the secret. This we consented to do; but, at the same time, pointed out that we did not consider the means adopted for making the invention public would be one that would commend itself to British beekeepers, and that they would regard with suspicion a promise to send out a pamphlet only when a few thousand subscribers at 1s. 6d. each were obtained. How many thousands it was not stated. We also suggested that M. Koerbs would do better by selling the invention to some foundation maker, or take out a patent. Our suggestion has been acted upon, and now the invention is in the hands of M. Otto Schulz, of Buckow, one of the largest manufacturers of foundation on the Continent of Europe. In the meantime, the ball being set going, ingenious minds went to work, and not having any secret to keep, we, as well as others, had our own ideas of how a comb should be constructed to fulfil all the requirements set forth.

We were led to the ideas from our recollection of the behavior of our bees with the flat-bottom wooden base foundation, introduced many years ago by Mr. Abbott, and his proposal at the meeting on the 7th of April, 1881, to use these combs with wooden bases as dummies. In that year we had several such combs, and on some of them, strangely enough, the bees built regular cells only on one side, nibbling the wax on the other side and using it for making struts or braces at right angles to the board. This we found was because the board was not sufficiently covered with wax, there being more on one side than on the other. Bearing this experiment in mind, the thought occurred to us that if bees were induced to build combs only on one side and to lengthen the cells so that the queen could not lay in them, the desired result might be attained. We therefore prepared a drawing, and asked a manufacturer to make us some foundation on calico with cells on one side only. The

illustration is a reduced copy of drawing sent, and shows our plan of fixing the foundation to the side of the frame. Since then there have appeared the ideas of some of our own bee-keepers on pages 22 and 34 of *B.B.J.* However, it now appears that the same idea of having cells built on one side of foundation only and fixing this to the side of the frame instead of the centre occurred to others besides ourselves, for about a week after this our friend M. Bertrand sent us a



circular describing the identical thing. A few days later, in the second number of the *Norddeutscher Bienenzeitung* for this year, appeared from the pen of W. Vogel, the editor, a description of the very same thing, and it has since transpired that the invention of M. Koerbs is the same.

With the *Centralblatt* for 1st March we receive a circular from Otto Schulz, in which he states that the same idea occurred to him, and he corresponded with Koerbs about it, but as the latter asked so high a price for his invention, he could not come to terms. He, however, made application for a patent, and subsequently visited Koerbs and submitted his own ideas to him, with the result that they have come to terms, and by amalgamating their ideas the article will be manufactured and sold by the name of

"Schulz-Koerbs" foundation. The new foundation is made on glass, wood, tin, card-board, or other material, with the impression of the cells in wax on one side, the other being left smooth. Of those who wrote to us, it will be seen that only one is anywhere near the mark, namely, Mr. J. Hall, who "guessed" that Koerbs did away with the midrib, although he did not "guess" that the rib was placed on one side. Although we do not for one moment wish to claim any priority in the invention, and should have thought nothing about it had not our attention been directed to the matter; still, while giving M. Koerbs the credit of the invention, it shows that when a number of minds are directed upon one subject, the same idea may occur to several at the same time, as it has to Vogel, Schulz, and ourselves; and we might even include Mr. Hall, as his idea is very near the mark.

The idea of having one-sided foundation is certainly novel, but it remains to be proved by experiment whether it will be of so great a value to us as it would be to German bee-keepers, whose hives have a brood-space so much smaller than ours.

Embedding various materials in wax for foundation is not new, and has been tried from time to time during the last twenty years or more; we ourselves used foundation on paper fifteen or sixteen years ago, and it has been repeatedly described, as well as embedding thread, silk, and other substances, both in the English and American journals, so that there is no novelty in this. We take the present opportunity of mentioning this because a correspondent on page 38 has evidently fallen into error by supposing that the idea of embedding other material than wire originated with him. A search in the back volumes of the *B.B.J.* would have shown him he was mistaken.

A great many years ago before foundation machines were made we became interested in comb foundation and tried glass, wood, tin, paper, etc, without much success. In one of our experiments we waxed the side of the division board and placed it next to the combs. They drew out cells on some of it, other places they would build brace combs between that and the combs next. Portions of the wax, especially towards the bottom of the division board they did not seem inclined to draw out, and spots of smooth wax were left untouched. We could induce them to build comb or draw them out by taking a small hexagonal stick and indenting the thin layer

on the board so that it had somewhat the appearance of an imperfect septum. We became much interested in the comb foundation question from previous experiments and believe we secured the second comb foundation roller mill ever made, manufactured for us by A. I. Root, and this mill manufactured cells slightly larger than ordinary worker cells, yet not so large as drone. After using it for years we laid it aside and adapted the Dunham and Vandervort and other later improved machines. Since then we have tried calico, bleached cotton, various kinds of paper, tracing linen, tin, glass, wood and tin foil. On our return from Cyprus with bees in '80 we brought samples of wood foundation from Mr. Abbott, of Southall, London. The only cloth we could get the bees to accept with any degree of satisfaction was tracing linen and the only paper a very heavy linen with a smooth surface. On sheets of this paper we have frequently written the Lord's Prayer in a large bold hand, dipped the paper in hot wax, passed it between the rollers, and had the bees draw it out into perfect comb and fill with honey. Years ago we exhibited this at Toronto Exhibition, also wood, metal and cloth foundation. After it was drawn out the bees would gnaw at the septum and seemed to fancy the threads in the cloth were moth webs, and commenced pulling and gnawing them out, if they were left in long enough they would tear every shred of the cloth away.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

MOVING BEES IN SPRING.

QUERY No. 174.—I wish to remove about sixty colonies of bees a distance of eleven miles over a rough road, early in April on the last sleighing. Would it be better to put them on the summer stands for a flight and look them over before moving, or would it be better to move without looking them over when there is a chance of a flight within a day

or two after moving?—R. H. S., Muskoka.

DR. C. C. MILLER.—I'm not sure. Perhaps better have the flight first.

S. CORNEIL.—Move them when you get ready but do not open the hives till the temperature is up to 60° in the shade.

G. M. DOOLITTLE.—I should leave the bees where they are till into May, when they can be moved without any danger from any source.

PROF. COOK.—While I do not suppose it would make any very material difference I think I should look them over and clean the hives first.

M. EMIGH.—If the weather is warm enough you might give them a flight before moving, but I would not look them over at that season of the year.

H. D. CUTTING.—I would leave them alone until I had finished moving them and had them in position where they were to remain then give a fly.

O. G. RUSSELL.—It will be necessary to disturb more or less in preparing them for moving. I would put them on summer stands for a flight before moving if the weather would permit.

ALLEN PRINGLE.—Should the weather be sufficiently fine and warm before you move them I should prefer giving them a flight and fixing them up before moving them. But doctors will differ.

WINTER FEEDING.

QUERY No. 175.—If you found a colony short of stores in January how would you, with as little disturbance as possible save them?

DR. C. C. MILLER.—Give them sealed honey or candy.

G. M. DOOLITTLE.—By setting in frames of sealed honey.

S. CORNEIL.—Give them "Good" candy over the cluster.

H. D.—CUTTING.—If you have a frame of honey place it on top of the frames or a few sections filled with honey. If you have no honey use a soft candy made from pure white sugar.

ALLEN PRINGLE.—If I had good capped honey in frames I would gently put the frames in on each side of the cluster. If not I would put good candy on top of the frames or use a Jones top feeder.

M. EMIGH.—I would raise the quilt carefully and lay a piece of good sealed honey on top of frames. The prepared sugar as recommended by D. A. Jones will do as well if some liquid food is fed after they begin to fly.

O. G. RUSSELL.—If I had them, and the weather would permit, I would give them frames of sealed honey, if not I would make a candy of granulated or best A. sugar, and place cakes of it on top of the frames directly over the cluster.

PROF. COOK.—If there is room above the frames place a cake of "Good candy" on the frames; or even a cheese cloth bag of granulated sugar on the frames. If no room open carefully on a warm day, if out doors and give them a frame of honey or comb filled with syrup. If in cellar open and do same at any time.

Learning Bee-Keeping Mechanically.

QUERY No. 176.—Can bee-keeping be learned mechanically the same as music, without any natural fitness for the same?

S. CORNELL.—No.

H. D. CUTTING.—Yes.

G. M. DOOLITTLE.—No. If you don't believe it try it and see, setting a musician at it.

O. G. RUSSELL.—No, I do not think one will make a success of it, unless he is naturally adapted to it.

DR. C. C. MILLER.—Yes, you can learn something about bee-keeping or music with no fitness for either, but I wouldn't give much for you in either case.

M. EMIGH.—Yes, just about the same as music. Some people will bring music out of almost anything, while others under more favorable circumstances are a complete failure.

PROF. COOK.—What is "natural fitness"? If it means brains, no. If it means caution, energy and punctuality, no. Any man with ordinary intelligence, caution, energy and punctuality can become a good bee-keeper, unless he is terribly poisoned by the virus of a bee-sting.

ALLEN PRINGLE.—Shades of Handel, Beethoven and Mozart! The idea that music can be learned "mechanically without any natural fitness!" The bones of these dead masters would surely turn in agony in their graves could they catch the sound of this materialistic and "mechanical" philosophy! No, no, my dear apicultural friend; neither music or bee-keeping can be learned mechanically without some natural fitness.

SUNDRY SELECTIONS.

EXPECTS A BIG SEASON.

W. M. BARNUM.—Bees pretty lively to-day, acting like business; they are "cleaning house" and scouring the country. My anticipations are way up high for the coming season. Shall prepare for unusual heavy honey crop. Friend Jones, you are making the C.B.J. "as good as they make 'em." Don't want to lose a number.

Angelica, N.Y., March 26, '88.

WEATHER BACKWARD IN WISCONSIN.

W. SWATY.—We have 85 colonies in the cellar and all seem to be wintering well so far. Will let you know how they come out later. We intend to keep them in the cellar until natural pollen is to be found which will probably not be before April 20th in this locality this spring as snow is still very deep and weather cold. I take three other bee journals, but I think I could hardly get along without yours.

Ahnapee, Wis, March 26th, '88

THE NEW SURPLUS ARRANGEMENT PLEASURES HIM.

JOSHUA BULL.—I am admonished that it is time to renew my subscription for the C. B. J., so here goes the money. Could not think of getting along without the JOURNAL. Why the description of your new surplus arrangements in the last issue is worth a years' subscription to any bee-keeper who wishes to catch on. Since the 1st of January we have had a great deal of cold and stormy weather, the thermometer having been as low as 46° below zero. Notwithstanding the severity of the weather, bees appear to be wintering well. From the 17th to 20th of March the weather was quite mild and the bees that were out of doors had a good fly. I have 40 colonies upon their summer stands, and 7 in my cellar; 47 in all. Wintered without loss up to this date, and they are all in excellent condition, except three, which were somewhat affected with diarrhoea, but they also appear to be all right since they had a cleansing flight. Snow is fully two feet deep on the level in this part of the country at this date, and the spring thaw has not yet commenced. When is winter going to retire?

We are anxious for summer to come this way
And scatter cold winter without delay,
Lest our bees shall consume all their honey in store,
Before, from the fields they can gather some more.

Seymour, Wis., March 29, '88.

Convention Notices.

The Lambton Bee-keepers Association will meet in the council chamber in the town of Forest on Tuesday, April 10th. All interested are requested to attend.

J. R. KITCHIN, Sec.

KIND WORDS.

I think your invention will be far ahead of the judging from what I can learn from the JOURNAL. It is just what I have been looking for.

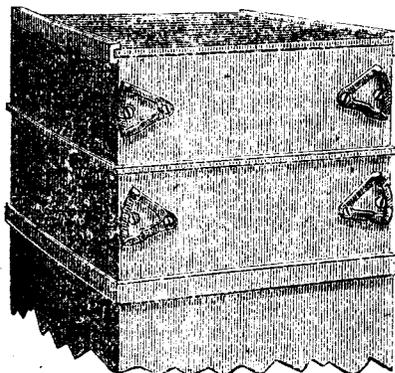
E. T. ABBOTT.

St Joseph, Mo.

OUR NEW Reversible Honey - Board

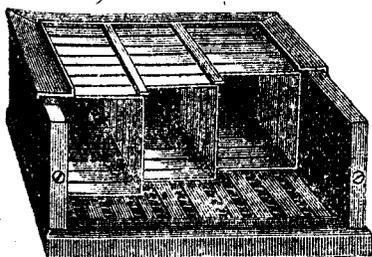
—AND— SUPER REVERSER.

This is the invention about which so much has been said in the bee journals during the past winter, and we are satisfied it will meet



THIS CUT SHOWS THE GENERAL APPEARANCE OF THE SUPERS.

with the approbation it merits. We have tested it thoroughly in our own apiaries, and have had it in operations in the apiaries of three other able, practical and successful bee-keepers.

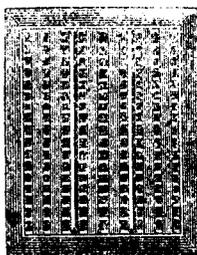


IN THIS ENGRAVING THE SECTIONS ARE SHOWN AS RESTING ON THE HONEY-BOARD WITH THE REVERSER COVERING THE JOINTS OF THE SECTIONS.

We claim for it:

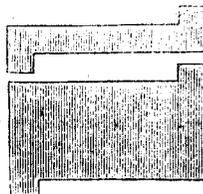
1. That section honey can be produced with less expense and with less handling than with other hives.
2. The great simplicity of the whole arrangement which adapts itself to the requirements of the merest novice as well as to the skilled apiarist.
3. It can be adapted to any hive in present use at very small cost.
4. The cost of wide frames, section cases, skeleton crates, rests, etc., is done away with.

5. The hive and supers are rain proof and wind proof.
6. The trouble of having the sections propolis together is done away with entirely.



SHOWING REVERSIBLE HONEY-BOARD AND REVERSER.

7. A most perfect and exactly correct bee-space is maintained at all times.
8. There is no shrinking and swelling of wide frames or section arrangements, there being none.
9. The sections may be reversed or interchanged, either by the whole crate or individually, with the utmost simplicity.
10. Separators can be used with this style of super just as readily as with any other.



CROSS SECTIONS OF SIDES OF REVERSIBLE HONEY-BOARD AND REVERSER.

11. The sections are brought just as close to the brood chamber as it is possible to get them in the tiering up system, and a quarter more sections can be put in every super.

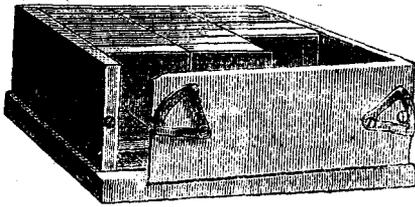
12. There being less weight and bulk the shipping charges will be much less than ordinary.

The prices of these honey-boards and reversers, for the different styles of hives, are given under their proper headings. We keep on hand a stock suitable for the "Jones," "Combination" and "Langstroth" hives. In ordering for any other style of hive, be particular to give the exact inside and outside measurement of the hive, so the honey-boards may be made to fit properly.

SPECIAL PORTABLE SUPERS.

Almost any super will suit this new arrangement, and we give in the price list the prices of the honey boards and reversers separately. We make a special "portable" super which is put together with a very light hive clamp, which answers its purpose capitally. When the sections are ready to take off, all that you need to do is to unfasten one corner (see cut following), and lift off the whole super. We make

them for the Combination Hive only, except to order.



SHOWING PORTABLE SUPER WITH SIDE THROWN OPEN SO SECTIONS MAY BE REMOVED.

The price in flat includes the clamps and screws necessary to put them together.

	made up in flat	
Portable Supers each.....	\$ 25	\$ 22
“ “ 10 and under, each	22	20
“ “ over 10 and up to 25	20	18
“ “ 25.....	19	17

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

THE COMBINATION HIVE

We believe that for all general purposes this hive is the best and cheapest in the market today. It combines all the good qualities of the most expensive hives offered, and the simplicity wanted by the novice or beginner in bee-keeping; its cheapness alone being one great characteristic.

The inside dimensions of the hive are: Length, 10 $\frac{1}{2}$ in.; width, 13 $\frac{1}{2}$ in.; depth, 12 $\frac{1}{2}$ in. The frames are 10 $\frac{1}{2}$ x12 $\frac{1}{2}$ in. In other words, the frames are of the same dimensions as in the "Jones single walled hive" but are turned over on the side. There are those who object to using a hive with so deep a frame as the ordinary Jones hive for comb honey, while the frame turned on its side meets their views; the supers are worked by the use of skeleton crates or \perp rests, and either 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ or 4 $\frac{1}{2}$ x4 $\frac{1}{2}$ sections may be used, unless, of course, you desire the new reversible honey-board and reverser, prices of which are given farther on, when neither skeleton crates or \perp rests are needed.

COMPLETE HIVE FOR EXTRACTED HONEY

Will consist as follows: 1 Brood Chamber, (including cover, bottom and frames) 75c.; 1 Second Story, (including frames) 65c. Total (ready for use) say.....\$1 35
3 and up to 5..... 1 20
Over 5 and up to 10..... 1 10
Over 10 and up to 25..... 1 00
Add 15 per cent. to these prices for one coat paint; and 25 per cent. for two coats.

The prices of the above complete hives in the flat, will be:—

Over 3 and up to 5.....	\$1 00
“ 5 “ “ 10.....	90
“ 10 “ “ 25.....	85
“ 25 “ “ 50.....	82
“ 50 “ “ 100.....	78
“ 100.....	75
Brood chambers alone, in flat, each...	55
Second stories, alcne, in flat.....	45

COMPLETE HIVE FOR COMB HONEY

Consists as follows: Brood chamber (including cover, bottom-board and frames) 70c. two supers made up, each 15c. (30c) say...\$1 00
Over 3 and up to 5 each..... 95
“ 5 “ “ 10 each..... 90
“ 10 “ “ 25 each..... 87
“ 25 “ “ 50 each..... 85

Add for one coat paint 15 per cent; two coats 25 per cent.

Prices in the flat—include brood chamber, as above, and two supers—and are as follows:

Over 3 and up to 5 each.....	\$ 75
“ 5 “ “ 10 each.....	70
“ 10 “ “ 25 each.....	65
“ 25 “ “ 50 each.....	63
“ 50 “ “ 100 each.....	60
“ 100.....	58

Supers, in flat, each..... 12
“ “ per 10, each..... 10

Strips of sheet iron for bottoms of supers or section cases are included.

We do not include the \perp rests or skeleton crates, in prices of the comb honey hives. We prefer leaving the choice with the customer. If you use \perp rests you will require to buy 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ sections; if skeleton crates, 4 $\frac{1}{2}$ x4 $\frac{1}{2}$.

We make up sample surplus cases complete with sections in any of the above ways at 45c. each.

The prices of ordinary queen-excluding honey-boards of metal and wood to fit this hive are as follows:—

	MADE UP.	IN FLAT.
Price, each.....	\$ 25	
“ per 10.....	2 35	\$ 2 10
“ “ 25.....	5 50	4 75
“ “ 100.....	20 00	17 00

Prices for New Reversible Honey-board to suit the Combination Hive

WITHOUT PERFORATED METAL.		Made up.	In flat.
Honey-boards, each.....		25	22
“ “ 10 and under.....		22	20
“ “ over 10 and up to 25.....		20	18
“ “ over 25.....		19	17

QUEEN-EXCLUDING BOARD WITH METAL.		Made up.	In flat.
Honey-boards, each.....		30	25
“ “ 10 and under.....		28	23
“ “ over 10 and up to 25.....		27	22
“ “ over 25.....		25	20

REVERSERS.		Made up.	In flat.
Reversers, each.....		15	13
“ “ 10 and under.....		14	12
“ “ over 10 and up to 25.....		13	11
“ “ over 25.....		12	10

The super arranged as above holds 24 sections 3 $\frac{1}{2}$ x4 $\frac{1}{2}$.

Where separators are wanted add 10 cents to the price per super.

PORTABLE SUPERS.

For the prices of these see page 5. We only stock these to fit the Combination Hive.

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

D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

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

Manufacturers of and Dealers in Apiarian Supplies

OUR CIRCULAR SENT FREE ON APPLICATION.

Publishers Canadian Bee Journal.

Fine Book and Job Printers.

QUEENS.



Our trade in queens grows greater each succeeding year, and we seem to be giving better satisfaction as well. We endeavor to raise queens which will produce good honey-gatherers irrespective of breed or race.

We pay much attention to the class of drones with which our queens come in contact.

The annexed table shows the prices at different seasons, of different varieties. These are, of course, subject to change depending upon the supply and demand. All changes will be noted in the CANADIAN BEE JOURNAL :

MONTH.	Untested	Tested	Selected	Virgin
May	1 50	2 50	3 00	
June	1 00	2 00	3 00	0 60
July	1 00	2 00	2 50	50
August	1 00	2 00	2 50	50
September	1 50	2 00	2 75	
October		2 50	3 00	

Three at one time, deduct 10 per cent ; six at one time, deduct 20 per cent.

EXPLANATIONS.

We are not, owing to our high latitude, able to sell queens before May, nor later than October.

Untested queens will be ready for sale as soon as mated, and before they have had a chance to prove themselves.

Tested queens are those which have been proven as to race and honey-gathering qualities.

Selected queens are chosen because of color, size and honey-gathering qualities.

Queens cannot be shipped unless the weather is warm enough, except at risk of purchaser—otherwise safe delivery is guaranteed.

We replace all queens lost in transit, but not those lost in introducing.

BEEES.

Bees should always go by express, unless they are personally cared for *en route*.

We do not hold ourselves responsible for breakage or delay in transit of colonies of bees ; they always leave our hands in good shape. We will send out only such colonies as we are sure will give satisfaction. Our bees will be such as the queens we offer will produce.

MONTH.	Italian	Italian Crosses	Carolinian Crosses
May	\$8.00	\$ 8.00	\$ 9.00
June	7.00	7.00	8.00
July	7.00	7.00	8.00
August	6.50	6.50	7.00
September	6.00	6.00	6.50
October	6.50	6.50	7.00

The above prices are for up to *four* colonies ; five colonies up to nine, take off 3 per cent. ; ten colonies up to twenty-four, 5 per cent. ; twenty-five colonies and over, 10 per cent—*always cash*. Bees at these prices will always be sent out in the Combination Hive, and each colony will contain a good queen, some honey, and brood according to the season.

BEEES BY THE POUND.

Just as soon as we can raise them in the spring, we will have for sale, bees by the pound at the following prices :—Up to July 1st, \$1.25 per pound ; after that date, 90c. per pound. Orders must be accompanied by the cash, and they will be entered and filled in rotation as received. We are booking orders now. Do not delay in ordering if you want prompt shipment.

NUCLEI.

A two-frame nucleus will consist of one-pound of bees, two frames partly filled with brood and honey, and an extra good queen, price \$4. Two at one time, \$3.75 each—up to July 1st.

After that date the prices will be \$3 singly ; two at one time, \$2.75 each.

We can send frames that will suit either the Jones or Combination hive. Please specify which you wish. Should you prefer the nucleus in either Jones or Combination hive, add price of the hive, made up, to the cost of nucleus.

Bees by the pound and nuclei must always be sent by express. Orders for nuclei filled, in rotation the same as bees by the pound.

APIARIAN SUPPLIES

MANUFACTURED BY

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

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

Send for Illustrated Catalogue for 1888. 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.

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BEETON ONT.

Muth's Honey Extractor.

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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

BEES FOR SALE CHEAP.

30 COLONIES OF ITALIAN BEES FOR SALE. In lots of 3 or more \$6.00 each. Now is the time to send in orders for spring delivery. Bees second to none.

Address

LEWIS JONES,
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IS THE ONLY PAPER PUBLISHED IN CANADA IN THE INTERESTS OF THE

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H. B. DONOVAN,
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FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

BEES AND HONEY

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE**, with a descriptive Price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly.

A. I. ROOT, Medina, Ohio.

Headquarters in the West

for the manufacture and sale of **BEE-KEEPERS' SUPPLIES.**

CHAFF AND SIMPLICITY HIVES, SECTIONS, FDN., SMOKERS, ETC.

furnished at a great reduction in price. A full line of supplies always on hand. I also have on hand for sale at all times, Pure Italian Queens, Bees by the pound, Nuclei and Full colonies at very low prices.

Send for Catalogue.

A. F. STAUFFER,

Sterling, Ill.

ELLISON'S EARLY ITALIAN QUEENS!

	April.	May.
1 Untested Queen.....	\$ 1 15	\$1 00
3 " Queens	3 00	2 50
1 Tested Queen.....	2 50	2 00
3 " Queens.....	6 00	4 50

Many of the above will be reared in the height of the swarming season and all will be nearly, if not quite as good as the best swarming queens. In every case safe arrival and satisfaction guaranteed

W. J. ELLISON.

Stateburg, Sumter Co., Sth. Carolina.

SECTIONS FOR THE MILLION.

We are turning out sections at the rate of 10,000 per day, right along, in addition to our regular hive and supply trade, and we are prepared to furnish them in any regular size and style in large quantities at very low rates.

Our prices are as follows:—

1000.....	\$ 4 50
3000.....	13 00
5000.....	20 00
10,000.....	37 50

All orders entered as received, and shipped with promptness. Order early to avoid the rush. These prices are spot cash.

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

BEETON, ONT.