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VOL. IV, NO. 3

1888

APRIL 11

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

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- 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.

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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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Send us the names of three subscribers with \$3 in cash and receive as a premium one C. B. I. Binder.

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

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

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

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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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BEEES ITALIAN BEES and Queens, 3 frames 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.

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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,
Nassagawaya P.O., Ont.

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

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Read what J. J. PARENT, of Charlton, N. Y., says—"We cut with one of your Combined Machines last winter 50 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of beehives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. & JOHN BARNES 54 1/2 Ruby St., Rockford, Ill. 21

THE BEE-KEEPERS'

REVIEW.

For March is devoted to "Planting for Honey." If undecided upon this subject, by all means read this number. The April number (which will be out in about two weeks) will take up the topic of "Securing Workers for the Harvest," or perhaps it would be more proper to say "Spring Management." R. L. Taylor, James Heddon, Dr. A. B. Mason, Dr. C. C. Miller, E. E. Hasty, F. P. Stiles, H. R. Boardman, J. H. Robertson, J. H. Martin, and Oliver Foster are among the contributors to these two numbers. Besides this, there are several pages in each issue devoted to extracts and to short, pointed editorials upon live, practical subjects. An exhaustive review of Mr. Cheshire's great work "Bees and Bee-keeping," is begun in the present issue. Price of the REVIEW 50 cents per year. Samples free

THE PRODUCTION OF COMB HONEY.

A neat little book of 45 pages, price 25 cents. The REVIEW and this book for 65 cents. Stamps taken either U.S. or Canadian. Address

W. Z. HUTCHINSON,

618 Wood Street, 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.

R. McKNIGHT.

March 29th, 1888.

Owen Sound.

BEEES AND HONEY.

TO ALL that are interested in Bees and Honey, send for our FREE and Illustrated Catalogue of Apian 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.

BEEES 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 Ann I Catalogue.

P. L. VIALLO.

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PRACTICAL BEE-KEEPER.

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

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Supply Men, Foundation Dealers,
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A large number of cuts in stock of
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THE D. A. JONES CO., Ltd.,
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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 **specially** intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

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-
enced hand for the season of 1888. Address
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-
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JONES CO.**, Beeton, Ont.

\$1 00 Will secure you by mail, post paid, 250
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corner of each. Send in your order now. **THE
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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,
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'Practical Hints to Bee-Keepers'

Sent free. Address

American Apiculturist.
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
wholesale and retail. Alsike clover seed cheap.
Sample section on application.

Bell Branch, Mich.

M. H. HUNT,
Near Detroit.

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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-
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Sections away down. The best manufactured Founda-
tion in Canada will soon be ready to ship. Send for
Price List before purchasing elsewhere.

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

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BEE-KEEPERS' ADVANCE.

—AND—

POULTRYMEN'S JOURNAL.

Only 25 cents per year, sample copy free. Address

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J. W. PORTER, Charlottesville, Va.
J. B. MASON & SONS, Mechanic Falls, Me.
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OLIVER FORSTER, Mt. Vernon, Iowa,
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. 3

BEETON, ONT., APRIL 11, 1888.

WHOLE No. 159

EDITORIAL.

WE have to thank Mr. Thos. W. Cowan, editor *British Bee Journal* for copies of the last revised edition, (Jan'y '88) of his "guide book." We have only had time for a cursory glance through its columns, but we find it considerably enlarged, and with many new illustrations which the author has had specially prepared for this, the ninth edition. 27,000 have been sold in six years, a sale almost unprecedented in bee literature. Of these 10,000 have been printed in foreign languages, to suit France, Spain, Russia, Germany and Belgium. We have no doubt but that with the recent additions made, this last edition will be disposed of even more rapidly than former ones.

The last number of the *Bee-Keepers Magazine* contains some rather startling information regarding the terrible extent to which adulteration is carried on by dealers in the United States. Some of the largest dealers are deeply implicated, and it behoves bee-keepers to see that their honey does not get into the hands of unscrupulous men, who will mix with it "glucose" and other adulterations. The table of analyses shows that out of thirty-one samples obtained from dealers only six were pure. All the samples obtained from farmers were pure.

We always make it a rule to notice all catalogues and price-lists received at the office of the *CANADIAN BEE JOURNAL* whether the senders of same, be advertisers and subscribers or not. We cannot carry out our motto to its fullest extent without doing this. Our subscribers pay for the privilege of knowing all that we can tell them, and if we can direct them to some queen-breeder or supply dealer by mentioning the existence of a catalogue gotten up by such dealers, we are only doing what we conceive to be our duty. It may look to some as being rather against our own private interests, but we must let these go to the wall where the general good is concerned, that is if it is against us which we very much doubt. Unselfishness generally reaps its reward.

In a private letter from Mr. Thos. Wm. Cowan, editor of the *British Bee Journal*, he advises us that he has written to Mr. Couse, the Secretary of the O.B.K.A., acknowledging the honorary membership conferred upon him at the last annual meeting.

There seems to be a misunderstanding with some of our subscribers as to the number on the address wrapper. They do not understand our mode of figuring out how each subscription stands. Let us explain briefly: On the editorial page of every issue of the *BEE JOURNAL* the whole number is given. If you will look at the top of this page you will find that the whole number is

158. If the number on the printed slip reads 158 it signifies that your subscription is paid up to date and no farther. If it should read 208 it signifies that you have to receive as many JOURNALS as there is difference between the present number (158) and the number on your wrapper. If, on the contrary, the number is less on the JOURNAL wrapper than the whole number of this issue, then you are in arrears just the difference between the two numbers. Any label which bears the number 104 is behind just 54 numbers, or one year and two weeks. We hope that this explanation will be satisfactory and that there will be no one who does not now understand the mode of reckoning out their subscription account.

THAT NEW INVENTION.

WE have had many good things spoken of the New Reversible Honey Board and Super Reverser, and very little adverse criticism. We have courted the latter in order that any bad or defective points might be remedied, if they could be found, and we are glad to have those who fancy they can improve the smooth working of the apparatus, write us their suggestions for publication. The first to come to the front in the way of criticism is our good friend A. I. Root, editor of *Gleanings*, in the last number of which there appeared the following :

On page 763 our friend W. F. Clarke spoke of a great forthcoming invention, and a good many jokes have been cracked at his expense because of the slowness with which said locomotive has got up steam. By the last issue of the CANADIAN BEE JOURNAL, however, we find that steam is up and the locomotive has started. One good thing has certainly been accomplished. We have got an unusually long editorial, presumably from friend Jones himself, illustrated by some nice pictures. Perhaps, now, we are premature in offering criticisms, but I am sure the new arrangement will be the means of having more streaks of propolis on the sections, to be scraped off, than we have heretofore had, and I am not sure, either, that the new plan has lessened the number of "chicken fixins." The new idea, however, is quite ingenious, and it offers valuable suggestions, and furnishes food for thought. Had I gotten up the whole arrangement, I am not sure but that I too should have imagined that

it was going to revolutionize fixtures for comb honey. I want to say, however, that, from what experience I have had with side-opening crates and supers, I do not believe anybody will ever want them a great while. Don't go to work and make a great many of them until you have tried them one season.

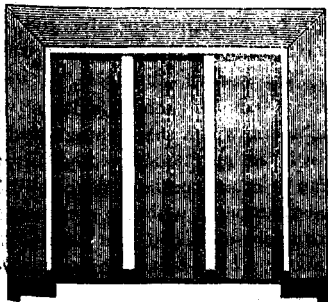
We are pleased that the editor of *Gleanings* has come out so squarely with his objections, because we think that we can easily remove them; and we are under the impression, too, that he hardly understands our arrangements as thoroughly as he should, else his objections would not be made. Perhaps we did not make our explanations sufficiently plain. We shall try now, however, to elucidate as much as possible from time to time.

How more streaks of propolis are going to get into the sections, we cannot understand. The only possible spaces the bees can have to crawl over are those above and below the top and bottom openings. They cannot by any means get at the sides or edges. Of the two systems, we think this one is much preferable to the \perp rest method. The latter has more space to catch the propolis of the bees than has ours, and there is always so much more trouble putting in the sections. The edges catch on the strips of tin and make a man feel very wicked at times. Now, in case side opened sections are used with these new arrangements, you will see that the sections come together so tightly and compactly that there is no chance of the bees getting at the edges, to stick glue into the crack which is invariably left with the \perp rests. There is always the thickness of two pieces of tin left between the sections in which the bees can shove propolis. But we do not insist that sections with side-openings shall be used; it is not at all necessary. The same results can be obtained with the ordinary section (open top and bottom) as can be got in any other style of super, with the same kind of sections. We do not claim the use of side-opening sections as necessary to the successful working of the arrangement, neither do we claim that side-opening supers are a part of our invention. We have had this latter idea in view and in use a long time, as have others. The super which is described on page 246, of *Gleanings*, as proposed by T. P. Andrews, was the

first style which we thought of, and though we did not make and try it, still we decided that it would not work on account of the liability of the apparatus getting out of true, and the nails pulling, as they certainly would to a more or less extent. We think it will prove but a rickety affair at best, unless some other arrangement is devised than mere nailing to hold the other two corners of the case together. Screws would better serve the purpose. We can hardly think that it is advisable to do away with the central supports, as Mr. Andrews purposes, for the very reasons given by Mr. Root in his comments on the article. We have just received from Mr. Andrews a request for copies of the JOURNAL containing description of our arrangement, and these we have sent him. We feel satisfied he will see in this, something worthy his attention.

THE REVERSIBLE HONEY BOARD.

WHEN describing the Reversible Honey Board and the way in which the sections are placed in on the raised strips, on pages 1051-1, we could not explain it as thoroughly as we could wish, in the absence of an engraving which would show it perfectly. The sectional view of the Honey Board which is here given,



shows very plainly, the raised edge all around the rim of the Honey board and the raised strips up through the centre at proper distances to suit the sections. These raised strips and rim answer exactly the same purpose as do the L and I rests and do away with the manipulation of the latter entirely.

Let us compare the number of pieces required to manipulate the I rests, and this new arrangement taking into consideration the number of pieces which

have to be handled. In the former case you have the honey board, super, two L rests and two I rests. In the latter, the honey board, super and reverser. Who will say that it is easier to manipulate six pieces than three?

If you wish to arrange the super fitted with I rests so that it will be reversible, it will be necessary to use yet two each more I and L rests, thus adding four other pieces to the number to be handled, and if we count the two tin strips which are used to hold the rests in place, we have yet another two. On the whole, we think that the number of "chicken fixings" is very materially reduced, and we yet hold to our statement, as made on page 1049 of the JOURNAL.

EVOLUTION TOO STRONG FOR HIM.

A BEE-KEEPER in the County of Oxford sends us, along with \$1 and his desire to discontinue the BEE JOURNAL, a long screed directed against our friend and valued correspondent, Allen Pringle. He says:—

"If you are to have an evolution editor the sooner your readers are made aware of it the better. I don't expect, neither have I any wish to be laid in Westminster Abbey, beside a descendant of the baboon tribe, such as Chas. Darwin claims to be, and which from appearance as well as moral character goes far to prove, that as regards himself he was not far astray. If Allen Pringle wishes to ventilate his favorite theory of evolution, he would, if he was endowed with a fair share of common sense, seek some other avenue than a BEE JOURNAL to ventilate his views. * * * * He writes as if the evolution theory was proven beyond all contradiction. I ask does not all theorists, no matter how ridiculous their theory may be, come to the same conclusion, speak of all those who will not fall into line, as little better than fools."

There is considerable of the same sort, but the above is sufficient to show the intemperateness of the statements made. Let us first say that one lost subscription has been made up by two others. Prof. Cook seems to be of pretty much the same mind as Mr. Pringle regarding this "nightmare" to which the Oxford Bee-keeper takes such objection, as he says substantially, that evolution stands firmly on the platform of truth, and that it is about as

well established as the law of gravitation. Mr. Pringle did not go so far as Prof. Cook either, though he might quote many scientific authorities to corroborate the Prof.'s statements. It now remains for this "bright and shining light" of the west to go and stop the *American Bee Journal*, and while about it he might as well sue for an injunction to restrain this and the *A.B.J.* from publishing any opinion contrary to his own. Just here we suggest that he stop reading all the newspapers, because he can scarcely pick up one of them without coming across some of the heretical food, which seems to so ill-become his appetite. Why does he not allow his fellow bee-keepers the same rights and liberties he claims for himself? As to Mr. Pringle's desiring to introduce subjects of an irrelevant nature to bee-keeping into the columns of the CANADIAN BEE JOURNAL, we positively deny such desire on his part. Mr. Pringle has never yet introduced any subject foreign to bee-keeping into our columns, unless as an argument to assist him in defending some position he has taken relative to subjects pertaining to our pursuit. Oxford bee-keeper cannot point out in all Mr. P.'s writings one item which was not strictly pertinent to the subject in hand, and so long as this be the case this narrow-minded man should not grumble. We do not intend carrying this subject any further, but in justice to Mr. Pringle, and to show how small and opinionated some men are in their views, we take the space. In writing the above we do not admit or oppose Mr. Pringle's, but we do like liberality.

OPEN vs. CLOSED SIDE SECTIONS.

IN our reply to friend Root's objections to open sections and supers, we did not attempt to show that *open-sided sections were an advantage*. All that was sought to be explained there was the fact that these open-sided sections were not *necessary* to complete the invention that we had brought out. But we do think that sections open at the sides as well as at the top and bottom *are* an advantage, and a very great one. You might just as well shut each one of your frames in the brood-chamber off in a stall of its own, giving the bees

entrance to them only at the bottom and top instead of at the sides, and through the combs if they were not all built out solid and full. Did any of you ever try the experiment? If it applies in one case, it must certainly apply in the other. Some *very good* arguments in favor of side-opened sections are given in the last number of *Gleanings*, by Oliver Foster, Mt. Vernon, O., which we reproduce:

In 1883 I conceived the idea of opening up communication between these cross-rows by making entrances between the sections at the sides, like those at the top and bottom. I accordingly went back to the 1-lb. section with open sides, and contrived a case especially adapted to their use which has since developed into what I now call the "adjustable" case. The chief object of this change was to combine the advantages of large frames with those of small sections.

One important advantage is, that after work is once started anywhere in the case, the bees gradually work through into the next row, and on to the ends of the case in the direction the combs run, which is the natural way for bees to work; whereas with the closed sides, work must be started in four places, and then progress "across the grain."

Another advantage claimed is that of a more perfect ventilation, facilitating the ripening process. Practice proves that the objects sought are realized. The main object is the same as that sought by the many expensive and complicated contrivances under the heads of "reversible frames," "contraction dummies," "invertible hives," and "divisible brood-chambers" with the queen-excluders, which these things necessitate. In brief, it is to get honey stored in sections rather than in brood-combs. With full 10-frame L., brood-chambers, without contraction, inversion, or queen-exclusion, but with open-side sections above, I have found, throughout a good honey-flow, the queens holding their position up close to the top-bar, leaving always plenty of empty cells below and around the brood. From such colonies I have had good yields of comb honey with but few swarms, and at the close of the season I have found scarcely honey enough in all the ten brood combs to winter the colonies:

I do not claim that the use of open-side sections will give us *all* the advantages claimed for contraction and inversion, but with them there is not the necessity for the unnatural extremes of compulsion, to which many are now resorting.

The unfavorable reports from open-side sec-

tions are evidently the result of improper construction, poor workmanship, or the want of a suitable case to hold them. They should be pressed close together, especially from the ends of the case; and for easy manipulation the case should be capable of enlargement.

Let us emphasize the point Mr. Foster makes with reference to keeping the sections close together.

For the Canadian Bee Journal.

Dr. Tinker's Wood and Zinc Queen Excluding Honey Board.

It appears from Mr. Heddon's communication on page 9 that he is sadly mistaken in regard to his claims on my wood and zinc honey board. At the outset I wish to state that I cannot answer him by retaliating abusive language. I do not believe in it. It is ungentlemanly and unchristian. Unfortunately for Mr. Heddon, his attack upon me is full of malice and bitterness, especially in the *American Bee Journal*. Yet he is unable to point to one word I have written that is not courteous and bearing my good will. I do not rejoice that he has covered himself all over with the blight of wicked and undignified thought, although he could not have harmed me less and his cause more than by such an attack. I had rather by far, he should have made a manly and honorable defence of his hive and system, and that I should be put to greater stress in reply. As it is, does not the intelligent reader infer that abuse is the most powerful weapon in defence of a hive and system of little merit? Wherefore, if the truth has so wrought upon my friend that he is beside himself, what need have I to answer him else than to refer again to that truth on page 956, vol. III of this JOURNAL?

In this matter of honey-boards Mr. Heddon's claims are a great surprise to me and will be to all when the truth is known. I know not what his motives are, but the discerning reader must infer that there is a deliberate effort on foot to defraud me of my rights and ultimately to deprive me of all credit as the original inventor of the combined wood and zinc honey-board. Since the winter of 1886 Mr. H. has claimed it as an original idea of his own; that also Mr. Hutchinson, Mr. Boyer and myself had thought of the matter "at about the same time," but inasmuch as the invention could be attached to Mr. Heddon's old slat honey-board it should all go together and be known as "Heddon's honey-board." Now it appears very strange that four men should have conceived the same thing at the same time, and especially that three

of these men should reside in Michigan where one of my hives having one of my wood and zinc honey-boards was exhibited by Mr. H. D. Cutting at the State Fair in September 1885. It will further appear more strange when we are told by Mr. Cutting that "Heddon said it was something new and an extra good thing, and I am sure he never saw or heard of such a device before, constructed in that way. Heddon, Hutchinson and myself talked it over at the time." However, only Mr. Heddon has set up any "claim" to it. Mr. Hutchinson frankly gives me full credit for the invention. He says, (page 438 vol. XXVIII of *American Bee Journal*) "During the past two years I have been using the combined wood and zinc honey-board, as first invented, I believe, by Dr. Tinker."

Mr. Heddon is the champion claimer. A little authority, by way of a patent, from the U.S. Government sent him clean daft. He was ready to claim Mr. Armstrong's new hive and every other new thing including my wood and zinc honey board. He gave us the law on patents with the authority of a Blackstone, and woe be to the man who should oppose him! How it turned out we all know. When faced by the foe he took to his heels ingloriously.

Mr. Heddon may have tacked zinc strips on his honey-board but he did not antedate me even in this; and a year before that I used a wooden queen excluding honey-board and then tacked on tin strips, one of which I sent to Mr. Doolittle. But none of these expedients are to be compared with supporting perforated zinc in saw kerfs made in the edges of the slats.

It now appears that all Mr. Heddon had to base his claims upon was the tacking of zinc strips on his honey-board and that was as far as he had got. He had not invented or conceived of a practical queen excluding honey-board at all. Finally he concedes it to be "morally" mine, and not so very long since advised me that he would have applied for a patent upon it.

I now leave this matter for the general public to decide whose invention it is and to whom is deserving the credit.

As to Mr. Heddon's statement that four rows of perforations in a wood and zinc honey-board are "more than ample" I am perfectly willing he should "go on record." It will probably turn out as it has in regard to open side sections and several other matters where he has gone "on record" that his record was not worth the paper it was written upon. It is quite useless now days for any man to set himself up as possessed of infallible authority on any subject. Mr. H. has made no experiments with two-rowed zinc and hence knows not whereof he writes, and

until he can prove that bees can walk as easily upon smooth surfaces like sheet metal or glass as upon wood;—it would be safer to be chary about going "on record." I hardly need to add that if a wood and zinc honey-board is not provided with enough perforations to admit of a proper ventilation of the super, the bees will labor under great disadvantages in ripening their honey.

Now, Mr. Editor, allow me to thank you for quoting my article from the *Apiculturist* with reference to the "value of honey-boards generally," also for your suggestion about "charity." Had we all Christian charity I do feel that there would be less occasion for angry communication to our journals. I cheerfully accord to you the honor of first making a practical use of perforated zinc in bee hives. Although used abroad, there must have been improper construction or use, else it would not have been abandoned. That you should have revived its use in a practical form will secure to you all credit and the greatest remembrance of all who prize the use of perforated zinc.

DR. G. L. TINKER.

New Phila., O.

We publish the above in justice to Dr. Tinker, and insofar as the use of our columns are concerned this controversy must cease. Dr. Tinker, we observe is taking out a patent on the Honey Board in the U.S. and any further controversy can be had in the U.S. law courts. We do not understand the patent laws in the U.S., but here in Canada a patent cannot be taken out unless before one year from the time the invention was first made public. This honey-board has been before the public now nearly *two* years, and therefore would not be patentable in Canada.

For the Canadian Bee Journal

MY EXPERIENCE.

RESULT OF THREE YEARS' HARD WORK.

FOR years I had been reading and hearing of the wondrous profits made out of bee culture, the tons of honey procured, and the amusement the pursuit afforded those engaged in it. I actually began to hanker after a sting; my sleep was nightly sweetened by dreams of sailing over seas of "liquid honey," seated on a "one pound section of comb;" I could talk of nothing else than "centrifugal force," "reversible frames and hives, Italians, Syrians, Carniolans," and other strains, *ad nauseam*, so

far as my friends were concerned. I could stand it no longer, so on the first of January, 1885, I took my plunge by sending \$2 to Chicago as a subscription for the *American Bee Journal*. This only made matters worse, and added fuel to the already fierce fire, for had I not now the evidence before me, if the mountains of honey gathered by the bees of Brother (!) Blank, if his account were true (and of course every American beekeeper emulates "the father of his country" and sticks fast and close to the truth.) I soon followed my first investment by procuring "A. B. C. of Bee Culture," and at once set to work to post myself theoretically in "the art of handling bees," for pleasure and for profit. By the time May arrived, I thought I had gained sufficient knowledge to venture in purchasing two colonies of Italians, and become in a very modest way one of the fraternity. I did not expect to rival Jay Gould or any other "king of finance," with the profits of my first season, but I certainly did think that in two or three years, with fairly good management, I would see some return for the trials and tribulations, to say nothing of the stings I had to undergo. I am situated in a fairly (for a city) good locality, have plenty of time on my hands, and think I possess ordinary intelligence, patience, and pertinacity; still I am a long way, according to my thinking, from success. I am now going to give you the result of my three years' work among the bees, and then to ask you for your honest opinion. The first year I increased my two colonies to four, and got seventy pounds of surplus honey. I bought a lot of supplies, so on balancing my accounts at the end of the year I found I had expended \$39.83, credit \$7.25, and I was behind \$32.58. I wintered my four colonies in the cellar, keeping a uniform temperature of 42°. In the spring of 1886 I found my four colonies in good condition and increased them during the season by natural swarming and division to twelve, but I only secured eighty pounds of surplus honey, and with my cash balance on the wrong side of the ledger to the tune of \$55.60. This amount also represents the previous year's deficit, \$32.58, brought down. I again wintered my stock without the loss of a colony, and began the year of 1887 with twelve colonies, which I increased to twenty-three. I got but 338 pounds of surplus, for which I received in cash \$38.80, but as I had to feed, last fall, \$21 worth of sugar made into syrup, I really had but \$17.80 for my year's work. This morning I balanced my books, and find that during the three years I have expended in cash \$99.53, and have received for surplus honey, etc., \$56.65, leaving me after three years'

hard work just \$42.88 out of pocket. Now, that is the way the cash stands. Against the three years' work and the \$42.88 deficit, I have in winter quarters 28 colonies of Italian bees, worth, I should think, at present, \$7 a colony or \$161; fixtures, etc., say \$39, in all \$200. Deduct \$42.88 from this amount, and I stand ahead \$157.12. I am charging nothing for my own labor and time. I am willing to allow as credit against that the experience gained. I have been induced to give this plain unvarnished statement, as I think too many are induced to enter upon beekeeping as a vocation from reading accounts which I cannot help thinking are in many instances exaggerated. It is human nature that men should not wish to publish to the world their failures, but, on the other hand, are anxious to have their fellow men think them just a little beyond themselves, and as a consequence, men, constantly seeing the credit side of the account, forget there is a debit side as well, and rush into a business which results to them, in many instances, in disappointment and failure. I keep abreast the times by reading nearly everything I can buy in the shape of bee literature. I am deeply interested in the pursuit, and give a great deal of time to it, spare no expense in procuring the best supplies, queens, etc. I have not once failed in introducing a new queen; have not lost one swarm of bees, nor have I lost, as yet, a colony in wintering; still, withal, I must have sadly bungled the business somewhere down the line, or I should—if the great majority of the reports in the BEE JOURNAL are true—be able to show, after my three years' work, a more satisfactory balance sheet. What says the Editor?

C. H. CORBETT,

Kingston, Ont., Canada.

We are pleased to have your accurate report. We think such a report must be more encouraging and satisfactory to beginners than many of the high colored ones. It shows clearly that where proper investment is made in bee-literature and the subject thoroughly studied in a few years a mere novice may become master of the situation. To commence with two colonies and in three years clear \$157.12 is better in proportion to the investment than any other we know of. Your experience and the knowledge you gained during the term is worth more to you than your time and labor, now you are just where you can commence making money. Why friend Corbett with fifty or one hundred

colonies to start with and no better success you would have had quite a little fortune. Your facts and figures ought to encourage many to go into the business.

For the Canadian Bee Journal

A Report from the N.W. Territory.

YOU do not get many reports from the North West Territory so that perhaps mine may be interesting. I had three colonies of bees in the spring of 1887; on the 20th April they began carrying in pollen. My first swarm was on the 11th of June and this swarm filled nine frames with honey and young brood and swarmed again on the 16th July. The parent hive in this case swarmed again on the 21st June, and the third time on the 23rd. The other two hives have not swarmed for two seasons. I found dead queens at the entrance of their hive during the swarming season so I think they superseded their old queen. The hive which gave forth the three swarms was left queenless for about three weeks before I became aware of the fact. The third swarm had three queens issue with it so I thought best to double up the parent colony with the third swarm. The honey crop was fair during the months of June and July though August should be the best month for honey gathering in this locality, but last season it was a total failure and my total production was only one hundred pounds of honey. I transferred one colony from a box hive in August last to a Jones hive, feeding them honey from the old combs. They are wintering without pollen. Pollen is gathered from a shrub blooming through the spring season on the open prairie. I think that if we were to have a severe drought in mid-summer bees would be likely to dwindle very much. I have noticed during a time of dry weather that the bees go to the woods, cliffs and deep ravines, and work on golden rod and blue saltee. The flowers that grow on the open prairie in time of drought suffer more from heat and wind and are barren of nectar. I do not wish you to understand from this latter portion of my letter that I am desirous of discouraging anyone from keeping bees in the Northwest because along the banks of the river and in other localities there is lots of good bee pasturage. I have now six colonies in winter quarters. They are very quiet and have shown no signs of uneasiness up to this time.

JOHN HEMSWORTH.

Sunnymeade, Assi., N.W.T. March 22nd, '88.

For the Canadian Bee Journal.

Mouldy Combs--Transferring.

YOU asked me in your answer to my letter if I was looking for the two dead Italian queens that I stated were dead. I was not. I merely took the lid off that sits on top of frames, but before I moved it I could see that there was frost on the glass and I knew that they were dead. I have not moved the boxes out of the house yet. Should I move them out? I looked in about the 10th of March and found some of them very wet on the bottom of the box and the water would run out so I raised the back end of the box and took a wire and pulled all the dead bees out. Some of them had about a pint and those that were dry had very little dead. They all seemed to be cleaning out and there was considerable dirt. Should I take all the dead bees out of the house? I asked you in my last how I would move the bees out of the old fashioned hives and also how to use the comb that is in them and what time is the best? They seem anxious to get out and when I was cleaning out the ones near the door, I had to leave it open to see to clean them out and it was cold and they could not fly far but they dropped. I took a dry brick and placed it at the hole to keep them in till I would get through with the rest of them. On Saturday I bought a lot of old boxes and frames and comb, some of which is mouldy and moth eaten. They have not been used for about three years. The bees that were in them were smothered. Will it do to use the combs for new swarms? Tell me the best way to get Italian queens in all of them. I have ten alive and would like to get them as cheap as possible as I have not made anything out of them. Give full particulars how I will work it. I suppose you would say the best way would be to get them when changing out. Does it make any difference how the hives are set in summer, facing the north, south, east or west. I have not let my bees out yet, but if the weather continues as it now is I think they will be able to get out this week. I am anxious to see how they will turn out. I think I will have to feed some of them. They seem to be light but they were heavy when put into winter quarters. Some say that they eat more when they are too cold. I will report to you frequently about my own and others' bees if it is of any use to you.

SUBSCRIBER.

Varna, March 19th, 1888.

We seldom do any transferring before fruit bloom, then all the good and suitable combs may be transferred into frames when the weather is warm enough for the bees to repair them. We

should not care to use mouldy or moth-eaten combs three years old even to put swarms on, they would be as well placed on foundation. It would take them longer to repair the old combs than to draw out the foundation, besides whenever there are moth webs in them the bees will cut them down in order to get them out. If there are any perfect combs that have been kept dry and free from moth webs they might be used or rendered into wax. The cheapest way to get queens is to buy spring queens in the swarming season, you can get them very cheap. We usually set our bees facing the south and east. If the weather is very warm after the snow is gone you might set them out for a while, but we do not believe in leaving them out until pollen can be found, so unless to see that they have sufficient stores it would be scarcely worth while. When they are wintering well they should be let alone until the weather is settled.

FOR THE CANADIAN BEE JOURNAL.

EXPERTS VS. AMATEURS.

THERE not the opinions of the "experts" very perplexing for new beginners, and are not the bee journals more for beginners than experts. Bee-keepers are like all other men, everyone wants his own way, and when we read the convention report each has a hobby. There they never come to definite conclusions, but merely talk nonsense for their own amusement, discussing at length such questions as: "Do runaway bees select and clean a tree before leaving the parent hive?" What has that to do with making money with bees? Us farmers that "keep bees" have to smile a little, and sometimes we listen with fear and trembling lest we should be deprived of our beloved pursuit that of keeping bees, along with our farming. We cannot build fences that will keep bees on our own farm and the specialists will buy corner lots, monopolising the whole, when the law is made in their favor. Tut, tut mon! I have been a bee-keeper all my days, and I am forty-one. For more than twenty years we have used movable frame hives, and I think I have as good a right to keep bees as any specialist, although we do not keep many swarms.

Here are my hobbies: I do not want more than twenty or thirty swarms to start with. I will sell off to that every spring. Will use nothing in the future but Langstroth hive for it is just the thing for extracted honey (and

will produce nothing else) and bees winter in them splendidly.

A GOOD WORD FOR CARNIOLANS.

We killed all our Syrian and Holy Land queens last fall and will keep none but Carniolans and Italians in the future. We would keep none but Carniolans for they are so gentle and great honey gatherers, but I fear they can not work on red clover like Italians. I think a cross between Carniolans and Italians the coming bee. We all know away back when we got our first Italians, a cross between them and blacks was an improvement for honey gathering, but they were so fierce. A cross between Carniolans and Italians, and I think better honey gatherers, better even than Syrians or Holy Lands and Italians crossed, and far more gentle.

ILA MICHENER.

Low Banks, Ont.

We find that to keep everybody interested in the JOURNAL, it is necessary to fill its columns with matter of interest to both experts and amateurs and we aim in that direction. By the way, you seem to have just about as many hobbies as some of these specialists that you "go for" so hard. In a paper submitted by the senior editor of this JOURNAL, some two years ago, to the North American Bee-keepers' convention, the Italian and Holy Land and Italian and Carniolan crosses were mentioned as the coming bees. So you see our opinions on that point are pretty well agreed. If you think we have too much "strong meat" for the experts, and not enough nutritious food for the amateurs, why don't you write us every few weeks on some practical work in the apiary. Let us have from you a description of just how you go to work in the spring with your colonies till you are ready for the honey flow for the first article. Then give us your mode of procedure during the honey harvest for the second paper. Your papers will help fill the niche you complain of as empty.

For the Canadian Bee Journal.

THE RESULT OF DIFFERENT HIVES.

BEING many discouraging reports in the CANADIAN BEE JOURNAL from last season I will give mine in brief as follows: I commenced the spring with 145 colonies, increased by natural swarming to 217, obtained 7,000 lbs. of comb and 1000 lbs. of extracted honey, for which I realised something over \$1,-

300, besides I have sold bees enough to pay nearly all expenses of the apiary, not counting my own labor of about five months. When I consider that the past season was a very poor one for most bee-keepers, then I feel thankful with the result of the season's work, but when I imagine what the patentee of the Heddon hive tells us in the controversies in your JOURNAL in 1886, particularly where he says, "with that new hive more than double as much profit could be obtained, than with any other." Could I believe this statement I would feel rather "blue" not adopting the new hive and losing thereby over \$1,300 in one single season. I do not wish to go into any controversy, but I am waiting for the reports promised, and I hope that the facts may be so crushing that those "doubting Thomases" will be convinced beyond any doubt.

We are having a very cold winter with about two and a half feet of snow and sleet which is frozen hard enough for the past ten days so that we can drive a team with a heavy load behind them most anywhere in the open fields over it without breaking through, but will not hold up a team in the woods. Sidehill roads are nearly all blockaded with the sleet that came down the hillsides onto them, and many places nothing of the road can be seen. The stuff is frozen solid and has to be chopped out with the axe. The whole country is as slippery and hard on top as if it was a chunk of ice; the oldest settlers have never seen the like here.

My bees seem to winter nicely in two caves, at from 42° to 45° above zero, a number of times we had it 44° and once 50° below zero this winter, but did not affect my bee caves any. So far it was never warm enough so that bees could fly without getting chilled when they left the hive.

C. THIELMAN.

Thielmanton, Minn., March 20th, 1888.

For the Canadian Bee Journal.

THE REVIEW.

REV. W. F. Clarke says that he is disappointed in the calibre of the Review. Hand us our specs to see if we are right. Yes, there it is as big as the horn of some of the fine bovines at a Guelph Agricultural Fair. What can the matter be? Is it because some of the remarks clash with his hibernation theories, or because we Michiganders (in this Canadian colony) have not been sufficient calibre to run an apicultural journal, or because he looks at objects through English colors. He assured us that the "Amateur Expert" was a "model" for all of us, but I can assure him that

I consider the writers of *Review* far ahead. Rev. W. F. Clarke, Messrs. Emigh, Pettit, Thom and the logical McKnight are persons whose writings are of more practical utility to me than "the English knight of the quill" can be because I regard him as too conservative. One of the New York *oracles* said that a certain element of the Canadians showed disgusting funkism towards everything English and I am afraid it is true. An able Canadian journalist (who wants annexation or independence) claims that Englishmen of equal and inferior talent are driving the Canadians from the editorial chairs on the Canadian dailies to the States. As a consequence the editorial and reporters' chairs in this State, and Chicago and New York are largely filled by Canadians who are selected by newspaper managers on account of fitness and not of descent or nationality. One Canadian Minister of Education entirely ignored home talent and set off to England in quest of a professor for one of the chairs in the Toronto University. The Englishmen regard their supposed superiority over the men Canadians have established, and in consequence their "Jack Falstaff" figures perambulate the Canadian streets with peacock strides and dudish get-up, that one would think they owned the whole country. I love the English and the masses, but not the classes, and the Gladstones, Laboucheres and Morleys are superseded in my humble estimation by no statesman on this side.

I beg leave to reassure the Rev. W. F. Clarke that I eagerly read his writings; that I respect the free and independent manner he treats apicultural matters and if any one reflected on his literary ability I shall be the first to censure him.

It seems to me that Mr. Hutchinson possesses quick perception, good reasoning faculties and moves to any undertaking with the skill of an accomplished chess player. His writings are eagerly sought after, and I should imagine that he is eminently qualified to run a "bee-paper." I believe, though, that if we must have an honest press we ought honestly to support it, and that there are about enough papers in the field. The C.B.J. is the only one that I find time to take, and I hope to see it enlarged, and this would be done if our Canadian friends concentrated their support on it, as I believe one journal is enough in that country.

GEO. J. MALONEY.

Cheboygan, Michigan.

Our friend is fond of good practical apicultural articles, and we will, therefore, cut short this discussion as to the

relative merits of different apicultural writers right here.

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.

QUERY No. 177.—What is the difference between the workers from a black queen mated with an Italian drone, and workers from an Italian queen mated with a black drone, and which are best for honey gathering?

DR. C. C. MILLER.—Common people like you and I would hardly find any difference.

M. EMIGH.—I never experimented with such bees much, but would prefer those from the Italian queen.

G. M. DQOLITTLE.—The difference would be very slight, if any, besides it is very difficult to know how a queen has mated, even when we are very desirous so to do.

O. G. RUSSELL.—1. I have not been able to distinguish any particular difference. 2. The workers of an Italian queen mated with a black drone.

H. D. CUTTING.—It is said that an Italian queen mated with a black drone produces very cross bees and the reverse cross produces gentle hybrids, but I fail to see it in my apiary.

S. CORNELL.—I could only give what is commonly said about the matter. Until we can secure fertilization in confinement, the subject must be one of conjecture in many localities.

ALLEN PRINGLE.—I prefer the cross between the Italian queen and black drone for amiability, and the cross between the black queen and the Italian drone for comb-building. The latter are more irritable, and perhaps a little behind the others in honey-gathering.

PROF. COOK.—At the risk of criticism I will say what I believe, that "Odd's the difference." Because in our higher animals, males have generally been bred with care and females not so bred, people think the potency lies with the male. I don't believe it. I believe if bred with equal care the female is as likely to give character as is the male and no more so. Nor do I believe one is apt to give special or specific characteristics. I see no reason to think that bees differ from other animals in these respects. This requires a longer answer.

QUERY No. 178.—If the entrance to a hive is half an inch deep by eight inches long, should it be left open full width for winter, if so, why?

DR. C. C. MILLER.—Yes, it gives a better chance for ventilation, and is not apt to be clogged.

M. EMIGH.—A good deal depends on size of colony, where it is wintered, etc. I am in favor of a large low entrance.

PROF. COOK.—Yes, if in the cellar, because that is none too large. If out-doors, no. It is too large an opening.

G. M. DOOLITTLE.—Yes, so the bees could have plenty of air; yet I would not have an entrance over three-eighths of an inch in depth, on account of mice getting in.

H. D. CUTTING.—Yes, it is best to give plenty of room at the entrance, for better ventilation and less liability of becoming obstructed with dead bees.

S. CORNELL.—Yes, if the hive is sealed at the top. If there is a porous covering on top, less opening will suffice below. The reason is because it is better that the air in the hive should be changed frequently.

O. G. RUSSELL.—This depends on the strength of colony, and whether wintered on summer stand in open air or in cellar. If in cellar, I would leave it open full width to give proper ventilation. If a strong colony out-doors, I would also leave open full width, but if weak, I would contract according to strength of colony.

ALLEN PRINGLE.—That must, of course, depend upon circumstances. If they are wintered on the summer stands with but little protection, that would be altogether too much winter entrance—if in a cellar or other proper repository of right temperature, it would not be too much, for the simple reasons that in the former case they would get too much cold air, and in the latter not too much.

SUNDRY SELECTIONS.

BEEES IN GOOD ORDER.

JAMES BRETT.—I began the spring of 1887 with 17 colonies, doubled to 34 and took about 60 lbs. of comb and 950 lbs. of extracted honey. I put 23 into cellar and left one on summer stand in a D.W. hive. I was looking them over last night and find them all alive, and I think in good order.

King, Ont April 5, 88.

A GOOD REPORT FOR 1887.

THOS. J. WEBSTER.—I commenced the season of 1887 with 125 colonies of Italians and increased to 215; extracted 9,000 lbs. of honey and took 200 lbs. of comb. I put into winter quarters 150 colonies in my cellar, and they are doing very

well so far. The balance of my colonies are packed in chaff out doors. Those in the cellar seem to be wintering the best.

Oakwood, April 2, 1888.

A SPRING REPORT.

E. CAVERLEY.—Began season of 1887 with 23 colonies; increased to 43 and sold three for \$25. I extracted 2,000 lbs. of honey; took from one colony through July 25 lbs. comb honey. Bees did well the first part of the season, but after July gathered no honey. Set bees in cellar Nov. 25. On examination to-night I find they are wintering well with the exception of one colony. This I find is rather weak but may pull through; said colony did not swarm and was very strong when set in cellar but consisted chiefly of old bees.

BEEES DESERTED THEIR HIVES.

A. BOOMER.—My bees are wintering fairly well, although I have been unable to keep the temperature as high as recommended. The bees have left two of my best hives in which were plenty of stores. In one case they must either have deserted a hive immediately before being put into the cellar or they have made their way into other hives adjacent thereto. In the other case, I know the colony was strong in the fall, and to-day there are not more than 100 dead bees in the hive and a few dead ones in front. The combs are pretty clean and full of well-capped honey. One of my neighbors says his bees, in a similar cellar, are brooding largely, and in some hives the capping of the young brood was cut. I have not examined mine so closely fearing to break the cluster. I duly received the sample combination hive sent me and will order those exclusively. I expect to set out 27 of the 29 colonies put in.

Sinwood, March 31st, 1888.

ALSIKE AND OTHER CLOVERS KILLED OUT.

THOS. RAMAGE.—I began last season with 27 colonies; put 39 into winter quarters last fall, having sold five during the summer. I got about 500 lbs. comb and 400 lbs. extracted honey. The honey flow was cut short on account of the dry weather, and I expect the coming season will not be a good one, as last spring's seeding of alsike clover was all killed out as well as a great deal of the old clover. I do not know how bees may come out, but it is my opinion that on the whole this has been a bad winter for them. I will report when I get to know how matters stand with me.

Richview, Ont., Mar. 27, 1888.

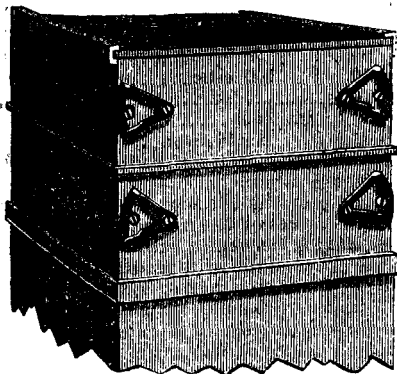
We are sorry to know that the clover is killed out so badly in your district. If you have to depend on that for your crop it's possible that there will be a dearth of honey another season, but we hope the results will not be so bad as you anticipate.

Note the usefulness of the *Exchange and Mart* column. It combines cheapness with utility, and is of much use to the bee-keeper who has anything to dispose of, and who does not care to go to much expense in advertising it.

OUR NEW Reversible Honey - Board

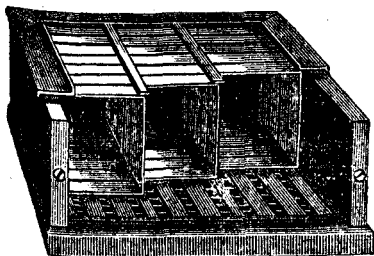
—AND—
SUPER REVERSER.

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.

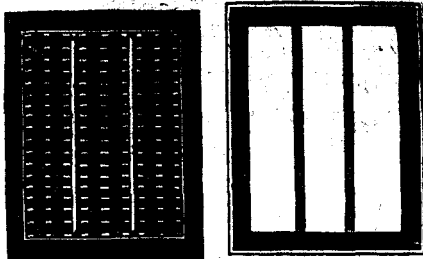


IN THIS ENGRAVING THE SECTIONS ARE SHOWN AS RESTING ON THE HONEY-BOARD WITH THE REVERSER COVERING THE JOINTS OF THE SECTIONS.

We claim for it:

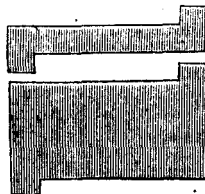
1. That section honey can be produced with less expense and with less handling than with other hives.
2. The great simplicity of the whole arrangement which adapts itself to the requirements of the merest novice as well as to the skilled apiarist.
3. It can be adapted to any hive in present use at very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

5. The hive and supers are rain proof and wind proof.
6. The trouble of having the sections propolised 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.



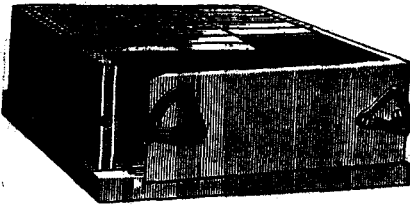
CROSS SECTIONS OF SIDES OF REVERSIBLE HONEY-BOARD AND REVERSER.

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 capitably. When the sections are ready to take off, all that you need to do is to unfasten one corner (see out 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, 10½ in.; width, 13½ in.; depth, 12½ in. The frames are 10½x12½ 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 3½x4½ or 4½x4½ 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, alone, 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 3½x4½ sections; if skeleton crates, 4½x4½.

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 3½x4½.

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., BEEFON, ONT.

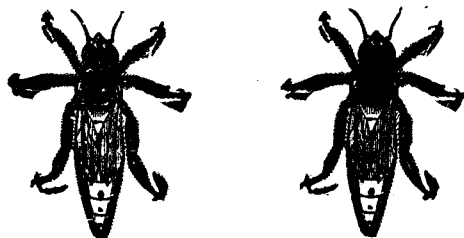
Manufacturers of and Dealers in Apiarian Supplies

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.

BEES.

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	Carniolan Crosses
May	\$8.00	\$ 8.00	\$ 8.00
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.

BEES 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**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

Bee-Keepers Guide

—OR—

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15,000 SOLD SINCE 1876.

The fourteen 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, 75c. Liberal discount made to dealers and to Clubs.

A. J. COOK, Author & Publisher,
STATE AGRICULTURAL COLLEGE,
LANSING, MICH.

250 ENVELOPES

—AND—

250 NOTE HEADS

FOR \$1.

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

CANADIAN BEE JOURNAL OFFICE,

BEETON ONT.

Muth's Honey Extractor.

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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

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,
DEXTER P.O. ONT.

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

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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-MONETLY CLEANINGS IN BEE-CULTURE**, with a descriptive Price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly.

A. I. ROOT, Medina, Ohio.

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