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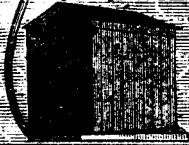
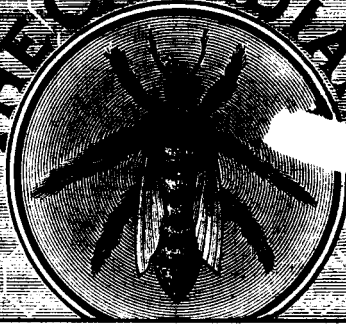
VOL. IV, NO. 9

1888

MAY 23

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

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

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- A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W. F. Clarke. Price 25c
- SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in paper cover, 50 cents.
- BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.
- 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 50c.
- 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, \$4.00; 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 I.O.B. cars at Toronto (duty and freight paid thereto). On application we will forward catalogue and pricelist free.

THE D. A. JONES Co., LTD.
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.

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

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

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

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

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

The number on each wrapper or address-label will show the expiring number of your subscription, and by comparing this with the Whole No. on the JOURNAL you can ascertain your exact standing.

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All advertisements will be inserted at the following rates

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Space measured by a scale of solid nonpareil of which there are twelve lines to the inch, and about nine words to each line.

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	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
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Four inches.....	9.00	15.00	25 00
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AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.75
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.00
"The Bee-Hive".....	1.00
"Beekeepers' Review".....	1.25
"Beekeepers' Advance".....	1.50

TO CONTRIBUTORS

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

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

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

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

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SECTIONS.—We have a large lot of V groove sections put up in 500 boxes in the following sizes, viz., 3½x4½x1½ 3½x4½x1¾, double slotted, which we will sell at \$2 per package, and will take as pay either honey or cash. THE D. A. JONES CO., Beeton, Ont.

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.

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 Annal Catalogue.

P. L. VIALLON.

BAYOU GOULA, IBERVILLE PARISH, LA.

—THE—

-POULTRY MONTHLY-

is the best journal of its kind

INTERESTING & INSTRUCTING.

ITS PAGES ARE GRANDLY ILLUSTRATED

each month with cuts of the various birds and is also full of good reading matter and is

FREE FROM PERSONALITIES.

Send 10c. for Sample Copy or \$1.00 for a year's subscription. Address

CHAS. BONNICK.
TORONTO.

COMB FOUNDATION!

At hard pan prices.

WILL. ELLIS,
ST. DAVIDS, ONT.

My 20th Annual Price List of Italian, Cyprian Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses.

E. H. BROWN,
LIGHT STREET, Columbia Co., Pa.



ITALIAN BEES AND QUEENS. Two or three Frame Nuclei or Full Colonies at lowest price. Every Queen bred from Imported stock and guaranteed second to none. Address

E. HEAL,
LINDEN APIARY,
ST. THOMAS, ONT.

COLONIES

Of pure Italian Bees in L. Heddon hives \$
or shipping boxes..... 3 00
Tested queens..... 1 25
Untested "..... 75

C. WEEKS,
CLIFTON, TENN.

E. L. GOULD & CO., BRANTFORD, ONT.

All kinds of Bee-keepers' Supplies. Sole dealers in Canada of Dadant's Comb Foundation.

CANADIAN HONEY PRODUCER!

Monthly: June, July and August (3 months) for 10c
Send for Price List, free. Queens for Sale.

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.

THE BEE-KEEPERS'

REVIEW.

For May is now out. Having regained the time lost during his illness, the editor will hereafter take pride in getting out the **REVIEW** promptly on the 10th of each month. The special topic of the present issue is "Hiving Bees." The review of Mr. Cheshire's work, which was begun in the March number, is finished in the present issue. We have a surplus of numbers containing this review, and so long as they last, three numbers will be sent free to all who apply. Price of the **REVIEW** is 50 cents a year.

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,
613 Wood Street, Flint, Mich.

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We make a specialty of Apianian Printing, and have unequalled facilities for Illustrated

Catalogue and Label Work.

Note these figures, which include printing.

	500	1000
Note Heads, good quality.....	\$1 15	\$1 90
“ linen.....	1 25	2 00
Letter Heads, Superfine.....	1 75	2 50
“ Linen.....	2 00	3 25
Envelope, business size, No. 7,		
white.....	1 15	2 00
“ Extra quality.....	1 35	2 25
Business Cards.....	1 50	2 50
Shipping Tags, 40c., 45c. and 50c. per 100.		

Our new book of labels contains nearly 100 specimens of elegant honey labels. Write for prices for any printing required.

THE CANADIAN BEE JOURNAL,
7 BEETON.

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.

FOR SALE.—One dozen Heddon hives About half have been in use. Will sell for half price of new. S. J. CHUBB, Eversley, Ont.

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

\$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.

QUEENS FOR SALE.—Tested Italian and Heddon Strain Queens, also a few Hybrids. Price 60c., \$1 and \$2 each, according to kind. CAN SHIP AT ONCE. G. A. DEADMAN, Druggist, Brussels, Ont.

ELLISON'S EARLY ITALIAN QUEENS!

	April.	May.
1 Untested Queen.....	\$ 1 75	\$1 00
3 “ Queens.....	3 00	2 50
1 Tested Queen.....	2 50	2 00
3 “ Queens.....	5 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.

'Practical Hints to Bee Keepers'

Sent free. Address

American Apiculturist.
Wenham, Mass, U.S.

7 PER CENT. OFF.

On Sections, from prices given in price list. We make four grades of Foundation—heavy brood, light brood, thin and extra thin for sections. Send for free price list and samples. Special prices to dealers.

BELL BRANCH
M. H. HUNT,
NEAR DETROIT.

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 kiln cannot be surpassed. We are ready for a rush! Sections away down. The best manufactured Foundation in Canada will soon be ready to ship. Send for Price List before purchasing elsewhere.

S. P. HODGSON & CO.,
Shelburne, P.O., 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 \$1.75. We give away our paper and sell you the seeds at about half price to introduce both to Canadian Beekeepers. Seeds will be sent post paid and we guarantee satisfaction. Address,

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

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SOLD IN 1887.

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- M. J. DICKASON, Hiawatha, Kans.
- ED. R. NEWCOMB, Pleasant Valley, N.Y.
- J. W. PORTER, Charlottesville, Va.
- J. B. MASON & SONS, Mechanic Falls, Me.
- Dr. G. L. TINKER, New Philadelphia, O.
- D. A. FULLER, Cherry Valley, Ills.
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- OLIVER FORSTER, Mt. Vernon, Iowa.
- GEORGE E. HILTON, Freemont, Mich.
- J. M. CLARK & CO, 1409 15th St., Denver, Col.
- E. L. GOOLD & Co., Brantford, Ont.

and numbers of other dealers. Write for SAMPLES Free and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to samples 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. 9

BEETON, ONT., MAY 23, 1888.

WHOLE No. 165

EDITORIAL.

A COMPANY formed some two or three years ago called the "British Honey Company," with the object of the purchase and sale of honey, has about succumbed. The *British Bee Journal* says of it:—"We very much regret to announce that we have received a circular intimating that a meeting of the above company will be held at the Charing Cross Hotel on May 10, when the following resolution will be proposed, 'That it has been proved to the satisfaction of the meeting that the Company cannot, by reason of its liabilities, continue its business, and that it is advisable to wind up the same voluntarily.'"

We have received at the hands of E. H. Cook, Andover, Conn., a small book entitled, "G. M. Doolittle's method of rearing queens," the price of which is 15c. It describes his method of artificial queen-rearing very minutely. To be had on application to the publishers.

Something new, in the shape of manufactured artificial comb, comes to us from E. B. Weed, 238 Third street, Detroit. We have only room to mention its receipt here. Another week we shall give particulars.

Our next issue will contain a number of articles from practical bee-keepers on "the best method of preventing increase."

This number will be worth the whole price of the *JOURNAL* for a year, we have no doubt.

The English manufacturers seem to have got a mania for patenting every new wrinkle that comes out. There are no less than four new styles of sections and section foundation fastening arrangements brought out these last few months, all of which are to be patented. With one or two exceptions we think each and every one have been tried in this country and discarded. The arrangement as gotten up by Mr. James Lee shows an inventive genius, but the price will interfere with its general use amongst commercial honey producers. We shall describe the different sections in an early number of the *BEE JOURNAL*, the description to be accompanied with illustrations.

OUR OWN APIARY.

AN UNCAPPING TOOL.

A writer in the *British Bee Journal* speaks of a handy and cheap tool for uncapping combs to be used for stimulative purposes. It will be rather too late to be of service this year, but it perhaps will be considered worthy of being noted for future use. The tool is made thus: "Cut a piece of tin $1\frac{1}{2}$ inches long by $\frac{3}{4}$ wide, cut teeth $\frac{1}{4}$ deep and $\frac{1}{4}$ apart. Nail the tin to a piece of $\frac{1}{2}$ wood, 8 by $1\frac{1}{2}$. Shape the end of wood into a handle. The combs need not be re-

moved from the hive when stimulating ; it only requires to be drawn a little apart from the neighbors." We would recommend that a shoulder or shoulders be soldered on the piece of tin just back of the saw teeth at right angles to them to prevent the teeth from cutting in the cells too deep, thus saving the bees extra work in repairing the damaged combs.

THE WEATHER.

We are having the most peculiar weather that has come under our notice for some years. On the 15th and 16th instants we had considerable snow and the weather is more like November than May. If it continues we must caution our readers to look well to their bees and see that they have sufficient stores, if not it is possible that they may be mourning the loss of their colonies when the time comes for the honey flow. We find on examination that quite a number of colonies in our own yards are getting away with their stores so fast that it will be absolutely necessary to feed them in a day or two unless some change comes over the weather.

IRREGULAR CELLS TO PREVENT THE QUEEN LAYING IN THE SECTIONS OR SECOND STORIES WITHOUT THE USE OF PERFORATED METAL HONEY BOARDS.

After reading what Mr. H. J. Stalhammer has to say on page 149, last issue of the BEE JOURNAL, the thought came to us of experiments in this direction tried years ago. The first foundation machine we ever had, made the cells somewhat larger than brood and smaller than drone cells. We noticed at that time that when sheets of foundation were put in the hive in very hot weather many of the sheets sagged, and the top rows, particularly, presented an irregular oblong appearance. The queen would never deposit eggs in such cells, unless forced to. To do this we would put the irregular comb right into the middle of the brood nest. Doubtless all our readers have noticed that, in the majority of cases, there are several of the top rows of cells more or less irregularly shaped, and the queen seldom lays in these upper rows. So that there may be something in the experiments tried in Sweden. Whether it would be worth trying on a more extended scale we question. Besides,

what unsightliness finished sections would present, compared with those we now have.

FEEDING IN THE COMBS.

Our foreman has been practising this method of stimulative feeding in the spring for years back and he is satisfied that no better plan is offered. His method of giving them the stores is to fill the empty frames full of honey diluted with water or with sugar syrup by holding the frame at an angle of say 45 degrees. The mixture can be poured into combs without any trouble. He then places the frames so filled at the rear and next to the brood nest. The inmates of the hive feel that honey is coming in plentifully and their efforts are turned in the direction of brood-rearing. Another beauty of this plan is that it is inexpensive; there being no outlay for feeders. We have nothing further to write about under this head this week. In the next issue we will have something to say with reference to a new style of section which we think will probably meet with considerable favor.

QUEENS TO CANADA.

MORE TROUBLE IN THIS CONNECTION.

WE are in receipt of intelligence to the effect that the Canadian postal officials have decided that queen bees shall not be admissible into Canada from the United States through the mails. Why they have so decreed is beyond our comprehension, the advice received being our first intimation of the fact. We are now endeavoring to get further information on the subject, and may possibly have it before this issue of the JOURNAL goes to press.

CHESHIRE'S BEES AND BEE-KEEPING

[CONTINUED.]

INTERCHANGING HIVES PROMISCUOUSLY.

ONE point upon which we did not touch in our last issue we take up now. We gave a quotation from chapter 3 with reference to painting hives all one color, and the covers a variety of shades. For want of space we did not make any comments at that time. Some four years ago the question of moving bees came up at the Interna-

tional Convention, held, we think, at Cincinnati, and the statement was then made that all you had to do was to have the location specially marked, and the hives could be changed promiscuously, with no bad results. We did not believe that such was the case, but we were satisfied to give it a good trial, which we did, at the expense of a number of good queens. We found that the bees did do just what friend Cheshire says they will—go back to the same place—but they would go into the hive, and in the majority of instances the queens would be killed. The bees, on coming back, found a strange queen in their hive, and in the presence of strange bees *she* acted much as a queen does when introduced to an entirely unfamiliar colony. It is likely that if lots of honey were coming in the danger would be less; but our advice is to cage the queen every time. It is not much trouble, and would cost less in the end.

CHAPTER IV.

NATURAL INCREASE.

This chapter goes over the ground very fully all the way from the time in the spring when the "sun" begins to climb the heavens" and the days begin to lengthen, till the end of the swarming season, describing graphically all the particulars throughout the various stages of egg-laying, drone and queen rearing, swarming, etc. Speaking of first swarms the author says: "The common idea that the queen issues first and the bees follow, is, at least as applied to first swarms, erroneous." He thinks, too, that there was "method in the madness" of those who in old times used to rattle frying-pans, keys, ring bells, hammer pans, and blow horns. He says: "I believe that the old idea, now almost universally discredited, that these noises disposed the bees to settle, is accurate. The investigation of undoubted auditory organs in the antennæ, the difference between the flight note of the queen and that of the worker, experiments made on small swarms and divided stocks, and the observation that bees choose quiet times—Sundays notably—for their departure, all point in one direction." There does seem a good deal of logic in what we have quoted here, and perhaps it may

be so; but there are other and more civilized ways of settling such swarms as seem desirous of taking a longer flight, chief among these being the use of the force pump and sprayer. In speaking of hiving swarms he says, what has doubtless come under the attention of most readers of the JOURNAL, that you will observe at the entrance to the hive, "a small army of fanning bees, all heading toward the opening." He then says: "Singularly, no writers mention what I have always observed, viz., if the queen be within, bees continually issue from the skep, running from fanner to fanner, in alternate diagonals, giving each one two quick raps with the antennæ, which seems to me to convey: 'All right, keep it up; mother's at home but she's awfully hot.' The fanners, thus encouraged, do not relax their exertions for a moment. If, instead of these assuring indications, the bees within the skep are apparently disquieted and begin to leave in numbers; the fanners also, lacking information, impatiently stopping their work and running about, while the mass on the bough is comparatively tranquil, and evidently increasing in bulk, we may be pretty sure that the queen is not of our party"—in the hive. Have any of the readers of the JOURNAL ever noticed anything of this?

The swarming boxes and mode of swarming in use in this country are described.

With our English friends a sure cure for repeated cases of desertion is "the giving of a frame of unsealed brood."

The idea that wing-clipping interferes with the movements of the queen is pretty well done away with; in fact the author believes with Professor Cook that it is possible that the queen may be even more vigorous through the excision "as useless organs are always nourished at the expense of the organism." Would there not be as much logic in this as in the case of a human being, who, having lost one arm, has an almost double power in the other? The Alley queen trap is described as also an improvement, in the author's opinion, by Mr. Howard. Speaking of these as a whole he says: "They are more likely to suit the tastes and needs of the amateur than to find favor with those who look to honey production as a serious matter."

Such traps are used but to a small extent in Canada, and seldom by any but the amateur. Our ideas and those of the author are at one in this respect. There is much else upon which we should like to touch, but space forbids.

CHAPTER V.

ARTIFICIAL AND NATURAL COMB BUILDING.

In commencing this chapter the old style of painting the top bar and wooden comb guide with wax are given. Systems of giving the bees a start in the way of comb-building are given, which we would consider too slow and tedious, where "honey-production" as a living is practiced. The methods of making foundation as formerly practiced are given as well as the modes now in vogue. For a lubricator, the starch paste used by A. I. Root, and the soap-suds used by ourselves are mentioned. The author suggests as a substitute for the latter an infusion of Quilla bark, its action, he says, in preventing sticking being simply perfection. We do not know sufficient of the properties of the bark referred to be able to say what the result might be. As Quilla is a vegetable substance of the same nature as soap, we do not know why it might not work, and we shall give it a trial first opportunity. Saponin, which belongs to the same family, should answer just as well.

Lee's frame comes in here for a very minute description. The author considers it has so many good points that it is likely to become a favorite. To this and the other subjects dealt with in this chapter we may refer again.

CHAPTER VI.

CONTROLLED INCREASE.

With the editor of the *Review* we must take objection to the statement contained in the first paragraph, to the effect that artificial swarming is practised to a greater extent than "natural." We hardly think that this is the case—the majority of those who keep bees are as yet amateurs, and they, in almost every instance, allow the bees to follow their "own sweet will" in this matter. In making this statement we do not take the stand that the bee-keepers who permit natural swarming are working in their own best interests; but simply that such is the case. Of natural swarm-

ing the author says it "can never secure results so favorable to apiculture as those that must flow from wisely conducted artificial methods." In this he speaks quite truly.

The method of transferring as practised in England is here given. The principles are much the same, but the work a great deal more than by the plan practised in this country, and which we published on page 86 of this volume of the BEE JOURNAL.

The different methods of dividing are described, viz., by the shake down process and by interchange of combs, both of which have received attention in the columns of the journals in the past. One paragraph upon which too much stress cannot be laid is that: "Honey production and rapid increase cannot co-exist. A mania for the making of swarms, has, in its results, disgusted more young bee-keepers than all other sources of disaster put together. The manufacturer of weak colonies has usually to pay for their maintenance in the summer and mourn their decease in the spring; so that instead of profit he loses money and his bees into the bargain." He further thought a little advice once given by the editor of this JOURNAL as worthy of reproduction, as follows: "Advice as terse as it was quaint was given many years since, by Mr. D. A. Jones, in my hearing, at a little private party of bee-keepers in reply to a question, "What do you think the most important rule as affecting profit in the management of our stocks?" He said at once, "Keep as few as you can." Supplying the illipsis which was conveyed by the smile and twinkle of the eye, the reply would run, "Keep your bees in as few colonies as you can," which tersely gives the very kernel of all that can be said respecting success if honey-production be our goal." The author is wedded to the non-swarming system brought out by Mr. S. Simmins and described in a back number of the C.B.J. by Mr. S. Cushman. He believes that time will show it to be the *ne plus ultra* in the prevention of swarming.

DETROIT HONEY MARKET.

Best white comb honey in one pound section is now quoted at 15c. to 16c. with little inquiry extracted 9c. to 10c., Beeswax 22c. to 23c.

EARTH WINTERING.

SOMETHING AFTER THE FASHION OF THE
MCFADDEN SYSTEM.

PROBABLY incited to it by the reading of the articles printed in the BEE JOURNAL as coming from Daniel McFadden, away up near the Arctic regions, Wm. Raitt, one of the editors of the *Record*, (British), decided to bury a couple of colonies of bees as an experiment, and in the last number of that journal he portrays, in readable style, the result of his experiment :

Neither earth nor cellar wintering are, we know, new things in this country, and they are quite common in America, Russia and other countries having more severe winters than ours. So that in venturing on experiments in this direction we did not mean to have it supposed we were after something new ; we only resolved to resuscitate ideas that have somehow slumbered, with a view to testing whether there might not be something in them suited to our modern system. In referring to our proposals, a leading writer in the *British Bee Journal* seemed to question, whether the system of underground wintering might not be too much trouble. The very opposite was our idea. We hoped to be able to do away with much of the trouble connected with preparing our bees for winter. Should we succeed, we argued that it would be very much easier to carry our compact little hives into and out of the cellar than to pack them on their summer stands, and do all the watching of entrances, etc., necessary during the alternations of snow and sunshine we are generally subject to. We further expected to prolong the lives of a large proportion of bees that would otherwise die off as the result of these recurring changes, and so bring our stocks out in spring nearly as strong as when we put them in in early winter. And we had before us the oft-repeated assurance of American bee-keepers that such was actually the case in successful cellar wintering. In the CANADIAN BEE JOURNAL for March 7th, for instance D. A. Jones assures us that in one of his cellars just examined, containing 125 colonies, he did not find more than two quarts of dead bees on the floor, which means but a few bees to each colony. True, in another case, an experiment in wintering with a high temperature approaching 70° reports two painful to as many colonies. But even this is a small loss compared with our usual dwindling in open wintering. Then also we had the not inconsiderable saving in stores

before us and the expectation that in an even cool temperature, there would be little or no untimely breeding, thus giving us in spring stocks whose queen and bees are both in prime condition for doing rapid up-building. In this we had every sort of reliable evidence from American writers, and from the fact so patent in their reports that they were so soon able to get their bees ready for the honey harvest.

So far our experiments, crude as they have been, have verified our anticipations. We buried two stocks in a "pit" on November 23rd, and exhumed them on March 30th. Both had wintered safely, the one having decreased only five pounds in 18 weeks, the other eight pounds. The former, a skep, had not lost over half a teacupful of bees ; the other, a frame hive, had lost probably three times that quantity, and was in rather a soiled condition for reasons quite patent. Neither had any sealed brood, the frame hive only showing a few eggs the next day.

We had intended to open the pit at the end of sixteen weeks, but as we formerly observed we were then suffering from the severest snow storm of the season, and even on the 30th it was still wintry weather. Our impatience, however, combined with the prospect of a good day following led us to rather premature action. For it turned out that the next day, while sunny, was yet bitterly cold from a north-westerly wind, and a good many bees from the soiled stock flew and were beaten down. We intensified this trouble from our anxiety to join this unlocated stock to a queenless one, we did not well know how otherwise to save. The other stock in the skep behaved beautifully, the bees flying strongly from the first.

The following were the conditions under which the hives were wintered : Happening upon an old packing case large enough to contain both, we sunk it about a foot into the earth, spread an inch or so of moss litter on its bottom for dryness, divided it into two by a close-fitting box lid lying handy, put in the hives after weighing and taking notes, covered the case first with pieces of board, then a little straw and a few short branches, and lastly shovelled the excavated soil and some litter over all, finishing with a coating of sods to throw off rain and keep the fowls from scraping off the covering.

No warm coverings were put on the hives only the usual summer quilt and an extra bit of sack- ing. Thus each hive wintered in an air chamber fully double its dimensions. One difference, however, there was, slight but important. Before covering all up, we noticed on the side where the skep lay, a broken part of the box, through which one might put a hand. Thus

being near the bottom, suggested its being used as a ventilator. We accordingly, with some pieces of board, formed a connection between this hole and the outer air, leading out near the side of the pit. The stock that wintered so well was the one that had this ventilation; the other evidently suffered from want of it, for its surroundings were all musty and damp and all its honey apparently candied. We noticed, too, that in putting it in its quilts had accidentally been displaced so that the bees could easily get out from under. Altogether, a rougher style of "burial" could scarcely be expected from any man calling himself a bee-keeper. Our success, then, in earth wintering is so far, considering the circumstances, of a very hopeful cast. How stocks so wintered may afterwards thrive is another matter. We are now sorry we only risked two of our poorest, from which little would have been expected in any case, and from one of which we can now learn little since it has had the addition of a queenless stock. Both, however, had still about five fair seams of bees when exhumed. But we shall notice all we can, pro and con, and by another season shall not hesitate to experiment more fully and with hives in fair ordinary condition.

What we have learned from this experiment may be thus tabulated:

1. Bees will live through an ordinary winter; though buried for eighteen weeks, provided conditions are at all favorable,

2. They will consume far less stores and lose fewer bees.

3. The favorable conditions are: That the situation be a dry one; that the hives have an air-space around them of at least double the capacity of the hives themselves; that this air-space have ventilation sufficient to allow the air to be changed without violence; that each hive be warmly covered in addition to the general covering over all; doorways left open full width; stores in good condition, and sufficient external covering to exclude frost.

4. That the stocks be quietly wintered when they have just clustered for winter, and be exhumed only when a fine day promises them a good flight.

And we propose the following as perhaps the simplest plan generally available for forming what we may call the "clamp." The surface soil should be shovelled out to form the sides of a trench, long enough to contain the number of stocks placed side by side. The bottom of the trench may be covered with dry sawdust or moss, either. Then two scantlings or rails may be laid in the bottom, say eighteen inches apart, on which the hives may be set as close as possible,

each alternately facing a different way. At each end a triangle may be erected with two poles crossing at the top and a ridge pole laid on long enough to reach over all. Any rough boards or sticks may now be leaned against this ridge from both sides, and a little straw or loose litter spread over all; and then a covering of at least a foot of loose earth, sawdust, milldust or other porous material. Such provision as may suggest itself for ventilation must provide for the exclusion of mice, and a few spruce branches or some turf will keep all in place. In such a clamp the stocks will raise the temperature on their own account and help to keep each other warm.

We learn from the *British Bee Journal* of April 5th, that Mr. W. B. Webster, Wokingham, has also wintered a skep in a clamp very similar to ours, with the result that after a confinement of four and a-half months, the stock was taken out in excellent condition with a loss of only two pounds in weight. In this case there was no ventilation, except what found its way through eighteen inches of soil.

Another case of a similar experiment is reported in the same number of the *Record*, which we also reproduce. Just here we want to correct that portion of Mr. Raitt's report where he speaks of our "bee-cellars." We wintered, last winter, in *bee-houses*, entirely; have not wintered in a cellar for years. The report mentioned above is as follows:—

"In the beginning of November Mr. Neil and myself buried two straw hives, and took them up again on the 27th March. They were in first-class condition, the bees humming, and as lively as when put down. They at once treated themselves to a cleansing flight, and were just two pounds lighter than when covered over. The most remarkable thing was that in my hive there were young bees almost ready to fly, and also grubs, (larvæ). I am of opinion that if we had let them remain for another month under ground, they would have been almost ready to swarm. We dug a pit deep enough for the skep to be level with the surface of the ground, and left about a foot of air space below, then covered up with brackens (brackens are dried ferns, the name common in Scotland) and earth, mounded up, the same as a potato pit. They are now our strongest stocks."—MR. GIBSON, Gatehouse, Scotland.

It may be well to observe that three out of the four experimented with were straw skeps, and that the frame hive did not come out so well as did the others. Maybe this has something to

do with the case. May not the straw hives permit of a ventilation not obtainable in the ordinary movable-frame hive, of pine? We should be glad to hear from Messrs. Corneil and McKnight, as to how the bees wintered in the straw hives which both tried the past winter. Our readers will remember seeing one of these on exhibition at the fair at Toronto last year, very cleverly made, we believe, by a son of Mr. Corneil.

THE MCFADDEN MODE OF WINTERING.

We have from D. McLaren, of Alliston, a report of his success, which we have pleasure in inserting. If there are any others who have tried it, we would be glad of their reports:

I reported in your JOURNAL last October that my bees were light in stores, and that I was going to put them away on the McFadden plan. I did so, as near as I possibly could. On the 26th April I dug them out, with many misgivings and doubts. I bared each hive to the sun that fine warm day and to my relief and delight they all rallied but one. I put away seven hives—that one was musty. I never had bees as strong before as those are now. There does not seem to be any dying off; they are very active and are filling the hives with brood. I believe I will have earlier swarms than ever before. I shall report first swarms.

D. MCLAREN.

Alliston, Ont., May 12th, 1888.

It would have been interesting to know the amount of stores consumed by each colony. Perhaps Mr. McLaren can tell us. To refresh the memory of those who read the plan said to be practiced by McFadden, and for the benefit of new subscribers, we will reprint the method. This is, of course, not a very seasonable article, but it may be worth keeping:

“The first cold nights we uncovered the hives so they will get perfectly cold through, then keep them in a cool place in the shade, with covers on loose, so as to keep them dry. As soon as there comes a good fall of snow, which always comes there before hard frost, we have a cave into which we pack a lot of snow, then lay dry bark on it, then the hives, then cover with dry bark, then pack about two feet of snow over them, shut all up, and cover all over nicely with snow. We never look at them till about the first of May; but if there comes a

thaw we are careful not to let any wet get down. We do this by packing more snow on, and cover with green hemlock brush, so as to keep the sun off the snow. When it begins to thaw rapidly and spring is upon us, we dig the bees out, set them in the sun with covers off; and if it is a fine warm day we have them humming in a few hours. We cover them at night uncover them next day, and cover at night again for the last time. Our bees are all in full blast in three days, carrying in pollen. The hives are in full strength—no sickly hives, no spring dwindling. By the 1st of June we have on the top hives. The only danger in putting up bees for winter our way is, if there are any hives with the least warmth left in them the bees will come to life, then smother or starve—at any rate, die they must, and be worthless. We never lost more than two hives in that way in eight years.

I now think you can all understand the cold plan of wintering bees. I suppose it would be more difficult where the winter is not cold enough.”

From the Review.

THE HIVING OF SWARMS.

IN preparation for the hiving of swarms when the time for their issuing comes, while making an examination of the several colonies in the spring I seek out each queen and clip one of her wings if one be not already clipped. I find it quite an advantage to do this before young bees begin to hatch largely because then the bees are comparatively few and the queen is generally easily discovered.

Then in anticipation of the advent of the swarming season other preparations must be diligently attended to. Hives must be all ready for immediate use and in a cool shady place as convenient as possible to the apiary. If the apiary be large, three or four baskets will be necessary and a good supply of cages for the queens as they issue with swarms is indispensable. The cages I use differ from anything I have seen described and may be made thus: Take a piece of soft wood five-eighths by one inch, four and one-quarter inches long and with a three-quarter or seven-eighth inch bit bore a hole through it from side to side so near one end as to leave at that end one-half inch of solid wood and cut the stick carefully and squarely in two through the centre of the hole. Then enlarge the half circle in the larger piece by boring

through it, (the stick) one or two holes with a smaller bit and smooth out with a knife. Also form a piece of wire cloth four inches long and about three and one-half inches wide, around a piece of wood five-eighths by one inch, beat with a mallet and weave smoothly together where the edges meet, then withdraw the wood, and having pushed into one end of the wire cloth tube the shorter piece prepared as above, tack it firmly in place. Now push the longer piece into the other end of the tube for a stopper, and you have a cage always ready, convenient safe and durable.

With these preparations all made I will suppose I am set to hive the swarms in a large apiary on a warm day in the height the swarming season. Everything likely to be needed, including heavy wire hooks for suspending the baskets, a pair of large white cotton sheets and a lighted smoker, are at hand in the shade of a centrally located tree. It is nine o'clock, and a hive near by spurting forth excited bees indicates that work has begun.

With a cage in my hand I step to the side of the hive and watch for the appearance of the queen in front. In one or two minutes she is seen climbing the blades of grass and trying the wing. The open end of the cage, the stopper being withdrawn, is held immediately over her, when she at once enters and the cage is closed, placed in a basket and the basket hung by its hook in a tree out of the sun at a place where the swarm is likely to find the queen. I then take a new hive (how excellent is the new Heddon hive for this purpose) to the one sending out the swarm, removing the latter from its place and turning it around, put the new hive where the other stood and change the section cases from the old hive to the new. In the meantime the swarm has found the queen and is soon clustered in the basket, when I pour the bees out upon the ground in front of the hive prepared for them and when they fairly take up their march for their new home I release the queen and see that she runs into the hive, because many of the bees will refuse to go in until she does. This is hardly done before another swarm issues. I cage the queen and arrange the hives as before, but the swarm, instead of finding the queen in the basket, begins to cluster at another place, so I at once remove the basket and hang it near that point and the swarm at once takes possession of it. Before this one is fully hived, another swarm is in the air, and by the time I have caged its queen it discovers her absence and is already returning as I place their new hive in position. I hasten the return by placing the queen at the entrance and as soon as the

bees are rapidly alighting I release and run her in.

It is now ten o'clock and swarming has fairly begun. Two swarms come out almost at the same moment and unite in the air. I cage their queens but notice that the swarms are attracted by the commotion at the hive into which the last swarm was put and are already beginning to alight there. I push the queens into my pocket, snatch a sheet and the smoker, and spreading the former over the hive threatened with invasion, with a few puffs of smoke from the latter I drive away the flying swarms, when they begin to cluster on a neighboring branch of an apple tree. I at once put each queen in a basket by herself and hang the baskets together where the cluster is forming. Soon one basket has its share of the bees and I steal it away and hang it out of sight in thick foliage or set it in the beecellar.

Now other swarms come out—five in pretty quick succession—so I take the other basket with the swarm and hang it in plain sight on a branch favorable for holding a large cluster of bees and convenient for shaking them off. Here attracted by the swarm in the basket, all swarms will for the present congregate. I now proceed first to cage all the queens out all others as they came out and put them in baskets hung near the cluster or out of the way in the shade till wanted. Then as I have time to arrange the hives and hive swarms taken from the general cluster, giving each a queen till all the bees are distributed.

It would make a long story to recount all the expedients at times resorted to induce the bees to assist in making their hiving easy, but the foregoing indicates the general methods used. Sometimes a swarm will cluster out of reach from the ground. In such cases, if practicable, a basket with the queen is hung under the cluster near the ground and with a little shaking the cluster drops down, the queen is soon discovered and the swarm gathers in the basket, or, more convenient, a pole is used with a hook for the basket, say twenty inches from the upper end. The basket is raised with the pole and held under the cluster while the latter is jarred off with the upper end of the pole. With unclipped queens on a good day for swarms I should be almost in despair. I never had but one queen superseded that I thought was superseded on account of clipping, and she had all four wings cut off short. My queens are not superseded soon enough to please me, I find too many that are approaching three years in age.

I am looking for a better way of managing swarming. Will the queen trap help? Who can give us new light?

R. L. TAYLOR.

Lapeer, Michigan, May 5th, 1888.

From the American Agriculturist.
What Becomes of all the Sugar and Honey.

IN the United States the consumption of sugar per head of the population was twenty-nine pounds in 1869; thirty-nine in 1879; forty-eight in 1883, and fifty-four in 1887. In England the consumption of sugar was thirty-two pounds per head in 1858; forty-one and a half in 1867; sixty-two in 1876. For several countries the consumption is placed as follows:

United Kingdom.....	63 lbs.
Austria-Hungary.....	15 "
France.....	25 "
Italy.....	6 "
Germany.....	18 "
Spain.....	7 "
Denmark.....	33 "
United States.....	54 "
Holland.....	25 "
Canada.....	51 "

Australia is put at eighty-six pounds *per capita* and Venezuela at one hundred and eighty—a figure that seems incredible. In all countries the average consumption annually increases. Sugar is becoming as much a necessity of life as bread. What wise cultivation has done for beet sugar it may do for the sugar cane and sorghum. Mr. Darwin puts on record the statement that the beet in France has yielded almost exactly double the quantity of sugar that it formerly supplied, and this has been effected by the most careful and systematic selection. The specific gravity of the roots being regularly tested and the best roots saved for seed.

The annual honey product is about 28,000,000 pounds, or half a pound apiece to the population. In 1880 Tennessee made 2,131,000 pounds; New York 2,089,000; Ohio 1,627,000; North Carolina 1,501,000; Kentucky 1,500,565, and seven other States—Arkansas, Georgia, Illinois, Iowa, Michigan, Pennsylvania and Virginia—produced more than one million pounds each; altogether, in the States named, more than half the entire product of the country.

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 are 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.

POLLEN IN DRONE COMB.

QUERY No. 187.—Will bees put pollen in drone comb if placed close to the brood?

H. D. CUTTING.—I don't know.

M. EMIGH.—I never noticed any.

ALLEN PRINGLE.—Yes, sometimes.

DR. C. C. MILLER.—Generally not.

O. G. RUSSELL.—I believe they will sometimes.

PROF. COOK.—I have seen pollen in drone cells.

S. CORNEIL.—I do not recollect seeing pollen in drone comb.

G. M. DOOLITTLE.—Yes, to a certain extent, but not nearly so much as in worker comb.

PREVENTING PLACING OF POLLEN.

QUERY No. 188.—Would drone foundation in sections, or drone comb in sections, prevent the placing of pollen, if put over the brood-chamber, a little before the honey flow?

H. D. CUTTING.—I don't know.

G. M. DOOLITTLE.—To a certain extent, but should not advise its use.

DR. DUNCAN.—No, I never knew any. I have no particular knowledge of it.

DR. C. C. MILLER.—It might have a little effect, but the remedy would be worse than the disease.

PROF. COOK.—It would tend to. But by use of slatted honey board we could do the same and use working foundation and have nicer honey.

ALLEN PRINGLE.—I think it would tend to the prevention. I am never troubled with pollen in the sections. Pollen is not apt to be stored in places to which the queen has no access. Use the perforated zinc.

J. F. DUNN.—I do not think it would. I do not want any drone comb in my sections; worker comb looks much better when filled. If your brood frames are not too shallow you can largely prevent the placing of pollen in sections by using a Haddon slatted honey board.

Finishing Sections on Extracted Honey.

QUERY No. 189.—In feeding back extracted honey to colonies to induce them to complete sections after they are sealed over, is there any difference between that and honey stored as the bees gather it from the flowers, and is it as sealable?

DR. DUNCAN.—Never tried it.

DR. C. C. MILLER.—You cannot count on its being as nice.

G. M. DOOLITTLE.—Honey so fed is more ap-

to granulate, otherwise there is no real difference, as far as I can discover.

H. D. CUTTING.—It is just as sealable and saleable; but it doesn't pay to use your honey that way.

PROF. COOK.—No difference if as good quality or if from same flowers. Just as saleable, if saleable is meant, as I suppose it is.

J. F. DUNN.—I never practise feeding back extracted honey to get sections filled out at the close of the honey flow, so cannot answer from experience.

ALLEN PRINGLE.—If you feed back the same kind of honey as the sections contain there will be very little difference. If not, of course there will be considerable difference.

SUNDRY SELECTIONS.

CHARLES MITCHELL.—Will you give me your best authority on "How to prevent increase." I put my bees into winter quarters very early. I lost one colony in winter and one queenless one since. I am very much puzzled how to keep down increase, as I have all the bees I want. I marked the weight of each colony last fall when I put them into winter quarters, and six months later when I took them out of my cellar, one lost only seven, some eight and one 14, but the average was 10½ pounds. My loss altogether was two colonies out of eighty-eight. I am satisfied that the bees which I had packed out doors did not lose three pounds more per colony, who can tell?

Molesworth, May 14, 1888.

THE IRE OF THE IRISH.

APIARIST, ALLISTON writes: Mr. Thos. Callaghan put away six colonies, and in the middle of April found them all dead. He set the lot out in his garden. One fine warm day he called over to his neighbor, Mr. Agan, that one of the swarms which had honey left had returned to life and was fairly booming. Mr. A., who has had some experience with the honey harvesters and keeps a few hives, winked to himself and remarked: "Take care; maybe it's visitors you have." "Oh, faith, no! No siree, they are flinging out the dead bees and working like heroes. The hive is full of bees." "Alright Tom, we shall see," said Agan. Next morning Callaghan remarked to Mr. A.: "Bad luck to the bees! There isn't one in the hive, an' divil the tint of honey is left in the hive either. I believe they were throwing out the dead bees to deceive me till they got all the honey away. I didn't know they were such villians. I had bad luck with them before but this finishes me with them. Bad cess to them anyway."

PETER NICOL.—I send you my order for supplies for the coming summer. Wintered five, all came through, three very strong, one medium, and one weak, which I united with the medium one to-day. I thought that it was queenless, as I looked in last week and saw no eggs and very few young bees, and they were peculiar-

looking; looked as if drones were in worker cells. But after shaking the bees off the frames into the other hive, having sprinkled them with syrup and a little essence of peppermint mixed, I found a queen adhering to one of the frames unwilling to be shaken into another queendom, and on examination found one frame pretty well filled with eggs, but as "Her Majesty" was rather small and poor-looking, and as there were but few bees in the hive, I killed her and completed the union. Unfortunately the frames of the one hive would not suit the other, or else I could have tested what these eggs would have come to by putting them into the other hive along with the bees, or had I thought of it in time, could have put them into another hive where the frames would have suited, but expect she was a queen unfertilized.

Albion, April 28th, 1888.

M. B. FREEBORN.—Enclosed you will find subscription for the BEE JOURNAL. I do not know what I would have done without it, as I had no experience whatever in bee culture when I entered in the business. I chanced to be at an auction sale in the fall of 1886 where some colonies of bees were offered. As I always had a fancy for them I purchased a colony. I wintered them outside in a clamp packed in wheat chaff. They came out in the spring of 1887 in first-class condition, and notwithstanding last summer being a poor season for honey, I extracted one hundred and fifty-six pounds of honey and increased my stock to six colonies, which I have brought through the past winter all right, although there do not seem to be as many bees in the boxes as there were last spring, that is to say, the colonies are not as strong as the colony I had last spring, but they have plenty of stores, and as the weather is now fine, I think they will do very well. The only trouble I had with them last winter was, I wintered them in the cellar, and during a thaw in the fore part of the winter the water came into the cellar to the depth of six inches, which caused mould in the hives. I do not know whether or not it will injure the bees to any great extent, but I intend cleaning the boxes as soon as possible.

Millbank, April 28th, 1888.

MOVABLE FRAMES VS. BOX HIVES.

J. GRIGER.—One day a farmer was passing my house and I called to him and asked him if he would like to buy a hive of bees but the answer was that he already had two hives and that I could not sell him any. He told me he would sell me a first swarm and on ascertaining at what price he informed me that it would be \$1.50. I said if he would stop at my place on his way back and take a hive along with him for me that I would go up to his place some day and set it up. On his way home he called in and took the hive with him, which I had ready, and I went to his place and set it up. The hive I sent up was a single-walled Jones hive, I cut it down to fit what we call simplicity brood frames that were full of nice white comb. I put on two supers, each with thirty-one pound sections, 4½ by 4½, with a sheet between the supers. The sections had starters half six. In about two weeks I went up and looked at my bees and saw

ADVANCE IN NAILS.

Owing to a rise in the prices of nails, we are forced to advance our prices somewhat, as will be seen by the following list. All orders will be filled only at these prices.

PRICES OF WIRE NAILS.

Length of Nails.	No. in Pound	Size Wire	Price of 1 Pound	Price of 10 lbs.
$\frac{1}{4}$ & $\frac{1}{2}$ inch	7200	21	22	2 00
$\frac{3}{4}$ inch...	5000	20	17	1 60
$\frac{1}{2}$ inch ...	3880	10	17	1 60
1 inch....	2069	18	12	1 05
$1\frac{1}{2}$ inch...	1247	17	11	1 00
$1\frac{1}{2}$ inch...	761	16	10	90
2 in.	350	14	9	80
$2\frac{1}{2}$ inch...	214	13	9	75
3 inch....	137	12	8	70

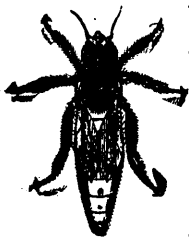
PRICES OF BOX OR HIVE NAILS.

	Per lb.	Per 10 lbs.	Per 100 lbs.
$\frac{1}{2}$ inch.....	7	65	6 00
$\frac{3}{4}$ inch.....	$6\frac{1}{2}$	60	5 50
$2\frac{1}{2}$ inch.....	6	55	5 25
3 inch.....	6	55	5 25

THE D. A. JONES' CO., Ltd.

BEEES FOR SALE.

One full colony of pure Italians, \$5.00; ten colonies, \$4.75 each; twenty-five colonies, \$4.50 each. Full colonies of Hybrids with queens from pure Italian stock, 50 cents less than Italians. Safe arrival guaranteed and references given when wanted. Address
JULIUS HOFFMAN, Canajoharie, N.Y.



Italian Queens!

Untested, May, \$1.25; June, \$1.00; July, 90 cts. Send for 16-page ILLUSTRATED PRICE LIST of Bees, Queens, Chaff Hives, Barnes Foot-power Saws, Langdon Miter-Boxes, and Apiarian Supplies. Address

WILLIAM E. GOULD,
 Fremont, Newaygo Co.
 Michigan.
 5-3 mos

Headquarters in the West for Pure Italian

BEEES & QUEENS.

Two-frame nucleus, untested queen, in May, \$2.50; June, \$2.25; after, \$2.00; 3-frame, in May, \$3.50; June \$3.00; after, \$2.50. With **TESTED** queen, add 50c. more. Bees, per lb., in May, 90c.; June, 75c.; after, 60 cts. Untested queens, in May, \$1.00; after, 75c.; six, \$4.00. Tested, in May, \$1.50; after, \$1.25. Write for circular of Bees, Queens, Sections, Foundation, etc. 5-3 mos. Address **JNO. NEBEL & Son, High Hill, Mo.**

PURE—ITALIAN BEEES FOR—SALE!

Full colony in A. I. Root's Simp. hive \$6.00. Two-frame nuclei \$3.00. Three-frame \$3.50. Each nucleus and full colony to contain a tested queen and plenty of bees and brood, all on wired L frames, combs drawn from fdn. Hives new, everything first-class. To be shipped in May. Safe arrival guaranteed. I shall do by all as I would be done by. Address

N. A. KNAPP,
 ROCHESTER, LORAIN CO., O.

BEEES

ITALIAN BEEES 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.**

-Comb Foundation-

Having purchased one of the best machines I am ready to receive wax to manufacture or buy. Pure Italian bees, queens and comb foundation for sale. Agent for the D. A. Jones Co. supplies. Can ship by C.P. R'y or H. & N.W.R., (now G.T.) and by Dominion or American Express.

H. COUSE.

Cheltenham, Ont., April 5th, 1888.

BEEES! BEEES!! BEEES!!!

40 colonies bees for sale. These bees are in fine condition with lots of honey. Two-storey hives with eight racks in each story \$8.00 per colony. Single story hives with 12 racks \$7.00 per colony cash, or P.O. order to accompany order. Address
W. H. SANFORD.

Tottenham, Ont.
 Reference Bank of Hamilton, Tottenham.

TESTED ITALIAN QUEENS.

Before June 15th, \$1.50 each, after, \$1.00 each; untested, 75 cents each. Six for \$4.00. Bees for sale by the pound. Nuclei or full colonies.
 For prices, write for what you want.

I. R. GOOD.

NAPPANEE IND.

Italian Queens, Queens.

Also bees by the lb., and all kinds of bee-keepers' supplies at rock bottom prices send for price list of 1888 now out.

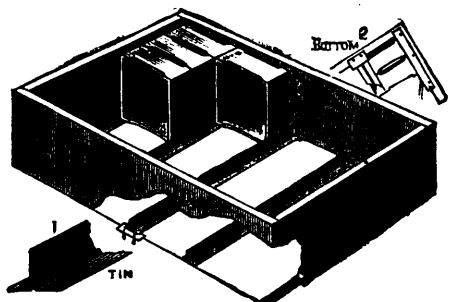
R. E. SMITH.

BOX 72, TILBURY CENTRE, ONT.
 Formerly Smith & Jackson.

COMB FOUNDATION.

I manufacture the best, or as good as the best foundation in Canada. Comb foundation for sale to suit almost any sized frame or section. Pure bees wax worked on shares or for cash. Samples with prices on application. No circulars. All freight to Ridgeway station, if by mail to **Henry B. Parker.**

MORPETH, ONT.



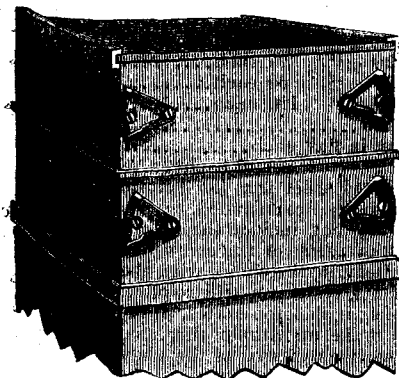
For circulars, paper or any other bee-keepers' supplies send to
J. & A. G. DYERS,

Illustrated catalogue free. Box 94, STRATFORD.

OUR NEW Reversible Honey - Board

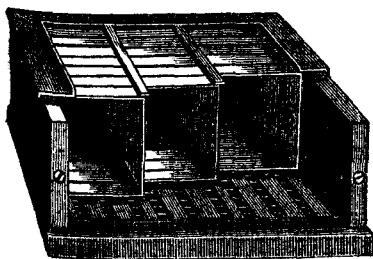
—AND—
SUPER REVERSER.

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.

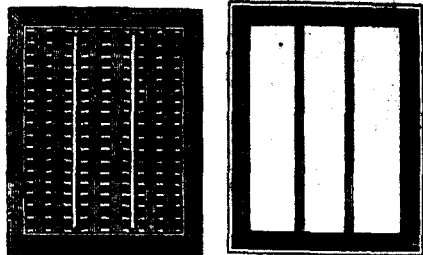


IN THIS ENGRAVING THE SECTIONS ARE SHOWN AS RESTING ON THE HONEY-BOARD WITH THE REVERSER COVERING THE JOINTS OF THE SECTIONS.

We claim for it:

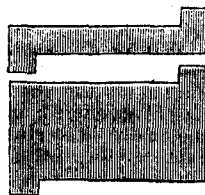
1. That section honey can be produced with less expense and with less handling than with other hives.
2. The great simplicity of the whole arrangement which adapts itself to the requirements of the merest novice as well as to the skilled apiarist.
3. It can be adapted to any hive in present use at very 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 proposed 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.

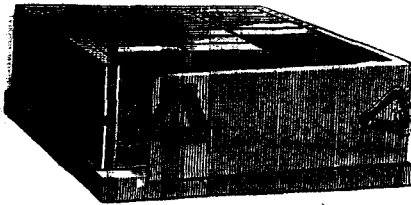
11. The sections are brought just as close to the brood chamber as it is possible to get them in the tiering up system, and a quarter more sections can be put in every super.
12. There being less weight and bulk the shipping charges will be much less than ordinary.

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.

Portable Supers each.....	made up in flat	\$ 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.,
BEEETON, 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 going 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) 75c. 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..... 17
" " 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.,
BEEETON, ONT.

D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

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

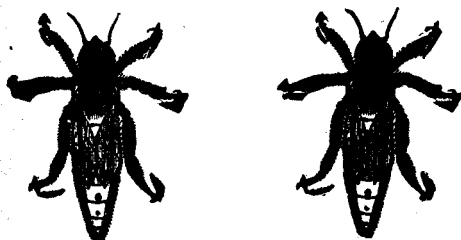
Manufacturers of and Dealers in Apiarian Supplies

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	Carniolan 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**. Dealer 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.

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.

BEE WAX WANTED

Will pay 40 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 Campbell Station C.P.R. If by mail to **ABNER PICKET**,
Nassagawaya P.O., Ont.

Agent for D. Jones Co.'s supplies.

250 ENVELOPES

—AN—

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

QUEBEC.—Beautiful fdn., cut to fit frames, 48c. for brood and 58c. for sections Wax made up, 10 and 20c. Sections, No. 1 dovetailed or one piece \$5 per M. Yellow ITALIAN bees in 10-frame hive, \$8. HYBRID bees. SMOKERS \$1. If you are in want of anything let me hear from you. F. W. JONES, Bedford, Que.

BEEES 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.

THE CANADIAN

POULTRY REVIEW

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

Poultry, Pigeon and Pet Stock Fraternity.

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

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

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

BEEES AND HONEY

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

BEEES AND HONEY.

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

M. RICHARDSON & SON,

Port Colborne, Ont

BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Charlton, N. Y., says—"We cut with one of your Combined Machines last winter 50 chaff hives with 7 inch cap. 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of beehives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. & JOHN BARNES 544 Ruby St., Rockford, Ill. 21

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