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VOL. IV, NO. 28

1888

OCTOBER 3

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
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BEETON ONT.

ADVERTISEMENTS

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by Rev. W. F. Clarke.....	1 25	1 15

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We have prepared a series of pamphlets on special subjects relating to bee-culture, containing the best thoughts of our most practical bee-keepers, which we offer at very low rates, as follows:

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- Or the whole five books, post paid, for..... .50

THE D. A. JONES Co., LD., Beeton, Ont.

BEE-KEEPERS' LIBRARY.

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

- "A YEAR AMONG THE BEES," by Dr. C. C. Miller Price, 75c.
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- BEE-KEEPERS' HANDY BOOK, by Henry Alley. Price in cloth, \$1.50
- PRODUCTION OF COMB HONEY, by W Z Hutchinson. Paper, price, 25c.
- THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.
- A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W.F. Clarke. Price 25c
- SUCCESS IN BEE CULTURE as practised and advised by James Haddon—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, \$5.25; 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.

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

Barnes' Foot Power Machinery

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.

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

PUBLISHERS' NOTES.

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

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

Send postal card for sample of leaflet, "Honey, some reasons why it should be eaten."

The CANADIAN BEE JOURNAL will be continued to each address until otherwise ordered, and all arrears paid.

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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.

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.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

TRANSIENT ADVERTISEMENTS.

10 cents per line for the first insertion, and 5 cents per line for each subsequent insertion.

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

STANDING ADVERTISEMENTS.

	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
One inch.....	\$4.0	\$6.00	\$10.00
Two inches.....	5.50	9.00	15.00
Three inches.....	7.00	12.00	19.00
Four inches.....	9.00	15.00	25.00
Six inches.....	12.00	19.00	30.00
Eight inches.....	15.00	25.00	40.00

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till tor bid and changed accordingly.

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THE CANADIAN BEE JOURNAL

AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.75
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

TO CONTRIBUTORS

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

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

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

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

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FRUIT PRESERVED WITHOUT HEAT I

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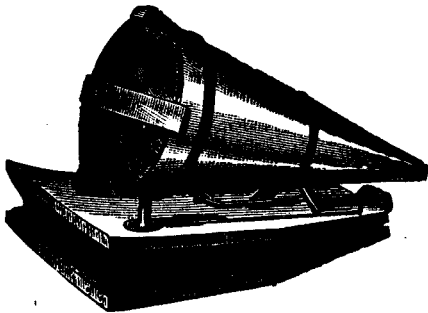
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Fermentation absolutely prevented. Simple, Reliable, Harmless. PRICE 25 CENTS per box. Sold by Grocers, or supplied by

BOOTHE BROS.,
Props., TORONTO.

Or
The D. A. JONES CO. Ltd.,
BEETON.

**CLARK'S
COLD BLAST SMOKERS.**



We are making these, with late improvements, and can forward them by mail or with other goods by return post. The prices are as follows:

Each	With goods.	By mail.
6 at one time, each	50c.	70c.
	45c.	

THE D. A. JONES CO. Ltd., Beeton, Ont

SEND US \$2.50

And we will send you a good servicable man or boy

Nickle Keyless Watch,

And FOREST AND FARM for one year.

The livliest and Best Weekly Paper published in the Dominion. Send your address for sample copy and full particulars. Special terms to bona fide canvassers.

FOREST AND FARM,

CHAS. STARK, Publisher, 50 Church St., Toronto.

THE BEE-KEEPERS'

REVIEW.

For September is specially devoted to "Food and its Relation to the Wintering of Bees. If you wish to know the views of such men as Mr. Heddon, J. H. Martin, L. Stachelhausen, Dr. L. C. Whiting, Dr. C. C. Miller, R. L. Taylor and O. O. Poppleton, read this number.

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

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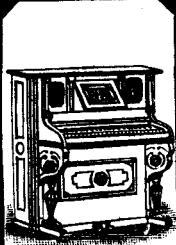
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L. P. THURSTON & CO.

Empire Nurseries, Rochester, N.Y.

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LEADING INSTRUMENTS

FOR PURITY OF TONE & DURABILITY
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BEE-KEEPERS'
PRINTING.

We make a specialty of Apiarian 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
Envelopes, 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 ART.

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.

25 COLONIES of bees for sale, bred from Italian Queen and hybrid drone, the bees to stand the winter. Address L. WADE, Angus, 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.

BEES FOR SALE.--40 good Colonies of Italian Bees for sale at \$6 per colony; for quantity write for discounts. Also a few young Queens at \$1 each. E. HEAL, St. Thomas.

SPLENDID OPPORTUNITY.

FOR SALE in Culloden, County of Oxford, a comfortable Dwelling, Outbuildings and four-fifths of an acre of splendid land, planted with the choicest fruit. In connection there are 60 Hives of Italian Bees with plenty of stores to winter, and everything else for carrying on Bee-keeping. All for Six Hundred Dollars (\$600). Owner leaving, and must sell. One of the finest districts for Bee-keeping in Ontario, situate two miles from Brownsville station, Michigan Central Railroad. Come and see, or apply to
JOHN A. CAIENES,
Culloden, Ont.

WINTERING

—AND—

PREPARATIONS THEREFOR.

A small but exhaustive and practical treatise on this important subject.

POSTPAID 15 CENTS.

THE D. A. JONES CO., Ld.
Beeton, Ont.

WANTED--all your loose magazines, periodicals, and journals to bind, at the BINDERY, BEETON, Ont.

'Practical Hints to Bee-keepers'

Sent free. Address

American Apiculturist,
Wenham, Mass, U.S.

A RARE CHANCE!

The Authorised Capital by Government Charter of the D. A. Jones Co is \$40,000, the subscribed and fully paid-up Capital is \$19,000. We yet require

TWO PRACTICAL MEN

To assist in the management of our large supply business, who could invest \$2,000 to \$3,000, each of which will be fully secured, and good salaries will be paid. We want those who would remain permanently with the company. Good chance for suitable men. Arrangements can be made to take farm lands in lieu of cash. Principals only dealt with.

D. A. JONES,
BEETON, ONT.

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 - E. KRETCHMER, Coburg, Iowa.
 - 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.
 - JOS. NYSEWANDEK, Des Moines, Iowa.
 - G. B. LEWIS & CO., Watertown, Wis.
 - PAUL L. VIALLO, Bayou Goula, La.
 - B. J. MILLER & CO., Nappanee, Ind.
 - J. MATTOON and W. J. STRATTON, Atwater, Goodell and Woodworth Mfg. Co., Rock Falls, Ills.
 - J. A. ROBERTS, Edgar, Neb.
 - 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 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. 28

BEETON, ONT., OCT. 3, 1888.

WHOLE No. 184

EDITORIAL.

MR. T. B. Blow, an extensive apiarian supply manufacturer of Welwyn, Herts, England, advises us that he is on his way to Canada and expects to be with us sometime this month.

Have you prepared for next year's honey flow by seeing that the bees have lots of stores *now*?

Why is a resolution to subscribe for the CANADIAN BEE JOURNAL like a crying baby in a public hall?

At the Toronto Fair we noticed, among the Algoma Exhibit, a couple of nice samples of mixed honey bearing the names of subscribers to the CANADIAN BEE JOURNAL on Manitoulin Island.

Manitoba was also represented by samples of both comb and extracted honey, but from whose apiary we did not learn.

Writing from Victoria, B.C., whither Mr. Thos. Collins, late of Portage-la-Prairie, Man., has gone to assume the editorial chair of the *Colonist*, we learn that while quite a number of bees are kept in that vicinity, they are mostly in box hives. Mr. C. purposes introducing the movable frame hive next season.

We have already received a large number of names of bee-keepers in response to the offer we made of the Bee-keeper's Dictionary for lists of ten. In one or two instances, we notice that most of the names sent are already on our subscription list. Of course, the prime object in securing the names is for the purpose of procuring new subscribers, and we would be glad if those who send in lists would be careful not to include names of present subscribers. In most instances it can be done without much trouble.

The President of the O.B.K.A. is already moving toward the preparation of a program for the next meeting of the Association, to be held at Owen Sound, beginning Tuesday, Jan. 8, next. We are sure he would be pleased to receive suggestions from each and every member of the Association, of which there are now considerably over 200. Let an effort be made to make this meeting a grand success, despite the partial failure of the business the past season.

The total number of directors to which the O. B. K. A. is entitled is thirteen—one for each district as laid down by the Agriculture and Arts Act. Districts Nos. 1, 3, and 5 were not represented last year, although it is possible that there are at present members of the Association residing in these districts. According to the statute under which the Association is worked, no

one is eligible for office unless he has prior to the commencement of the election of officers become a member of the Association for the incoming year. It is desirable that a full board of Directors should be elected at annual meeting otherwise the districts then left without representatives remain so during the entire year, and this is not satisfactory either to the Association or to those who may become members from those districts after the annual meeting. It would be well, therefore, that bee-keepers who intend joining the Association at all, do so before the date of the annual meeting.

* * *

To further assist those in the unrepresented districts and for the general information of all concerned we publish the districts as laid down under statute:

1. Stormont, Dundas, Glengarry, Prescott and Cornwall.
2. Lanark North, Lanark South, Renfrew North, Renfrew South, Carleton, Russell, and the City of Ottawa.
3. Frontenac, City of Kingston, Leeds and Grenville North, Leeds South, Grenville South, and Brockville.
4. Hastings East, Hastings North, Hastings West, Addington, Lennox and Prince Edward.
5. Durham East, Durham West, Northumberland East, Northumberland West, Peterborough East, Peterborough West, Victoria North (including Haliburton), and Victoria South.
6. York East, York North, York West, Ontario North, Ontario South, Peel, Cardwell, and City of Toronto.
7. Wellington Centre, Wellington South, Wellington West, Waterloo South, Wentworth North, Wentworth South, Dufferin, Halton and City of Hamilton.
8. Lincoln, Niagara, Welland, Haldimand and Monck.
9. Elgin East, Elgin West, Brant North, Brant South, Oxford North, Oxford South, Norfolk North and Norfolk South.
10. Huron East, Huron South, Huron West, Bruce North, Bruce South, Grey East, Grey North and Grey South.
11. Perth North, Perth South, Middlesex East, Middlesex North, Middlesex West and City of London.
12. Essex North, Essex South, Kent East, Kent West, Lambton East and Lambton West.
13. Algoma East, Algoma West, Simcoe East, Simcoe South, Simcoe West, Muskoka and Parry Sound.

During the coming winter we intend making a "big push" to increase our already large circulation. Every reader can assist us either by canvassing the bee-keepers in his vicinity or sending us their names so that specimen copies may be forwarded. Liberal cash premiums will be given to canvassers. Let us hear from you by return mail.

CONDENSED CURRENCY.

A DIGEST OF ARTICLES APPEARING IN OTHER PERIODICALS.

ALFRID Neighbour, of London, England, tells us that a favorite dish with the Jews of that city on their New Year's day—September 6th—is "new honey and new apples." The demand for comb honey at this time is very large.

"X-tractor" in *B.B.ȳ.* tells of a swarm a friend hived, which weighed 24½ lbs. nett. Five or six swarms issuing at the same time had amalgamated.

Friend Alley's idea that "only one kind of honey is stored in any one cell" is proven erroneous by a writer in the *B.B.ȳ.* He prefers a mixture of heather and fruit blossom nectar, and to obtain it retains unfinished sections of the former in all stages until fruit bloom the succeeding year.

The word "storify," meaning tiering-up, cannot be found in any of the dictionaries. It is of recent coinage.

"The Canadian" is in our opinion one of the best rapid feeders for use on a frame hive.—*B.B.ȳ.*

Apiculteur, of Paris, states that that city is not using so much wax as thirty years ago when its annual consumption was from 100,000 to 150,000 kilos. Carpets are superseding the waxed floors.

During August England imported honey to the value £1365.

What percentage of hives swarm under any non-swarming system? My experience is, that by tiering up and giving plenty of room, not more than three per cent. will swarm. Consequently in an apiary of six hives we shall probably have only one swarm in five years.—Honeysuckle in *B.B.ȳ.*

At the close of an article on Honey Resources in the October *Api*, Mr. J. S. Biddle speaking of the culture of nectar yielding plants says: "If as much attention was paid to it as there is de-

voted to the hive with all its late affixes, etc., the success (of bee-keeping) would be greatly improved."

An interesting article on Carniolans is that by L. Stachelhausen in the *Api.*, but it cannot be said that the writer is prejudiced in their favor. The first Carniolan queen imported into Germany had no sign of yellow blood, and he avers that the Carniolan bee proper is nothing else than a variation of the so-called German. North Germany has a bee allied to the Carniolans, only more black, good breeders, raise drones all the time and frequent swarmers; Southern Germany has a brown bee, slow in breeding and swarming. Mr. S. argues that by admixture with other races and by a line of management pursued for a century the distinctive qualities of the Carniolans and Germans have become fixed—that they are like the Bostonians, "victims of culture."

A "fixed race" of bees Mr. Stachelhausen thinks cannot be had by crossing two different races, because in a couple of generations the markings of one will disappear. He believes the Italian to be a cross between an Egyptian and a black, but not a fixed race yet. An Italian can by selection be bred to a more yellow color, or in the other direction to a darker. This, he concludes, is proof enough that the Italian is no fixed race, but a cross of two races that may be more than one thousand years old.

Swarming out in the spring is the result of the absence of a sufficient quantity of young bees to keep company with the queen when a general flight of the workers takes place. Finding herself so nearly deserted, the queen becomes excited and takes wing with the workers and the excited colony may return to their home and they may not; in the latter contingency, it is a case of "swarming out." A queen and drone guard at entrance will prevent the queen taking wing and the cause is removed.—G. W. Demaree in *Apiculturist*.

A virgin queen, says A. L. Swinson in Friend Alley's journal, is one of the most satisfactory methods of introducing

new stock, attended with comparatively little risk and danger of loss. A breeder would not sell his *best* queen for probably \$20, but would sell a selected virgin daughter from said queen for less than a dollar, that would, mated to an Italian drone in purchaser's apiary, produce in some instances better drones than would the unpurchasable mother queen.

Before closing up for winter be well assured that every hive contains a fertile queen. We fear that many will be found queenless. There seems to have been a mania among the bees for changing their queens, and in many cases they have been unable to provide a successor, owing to the unfavorable season, no doubt. People who fail in life generally become morose, and dissatisfied with all around them. Just so with the bees. When confined to their hives during the summer months by cold and rainy weather, and unable to store food for the winter's supply; aware that a screw is loose somewhere; restless, unhappy and morose; the blame is often laid at the door of the poor queen, and sentence of death is passed. The foreign races are said to change queens oftener than the English bees, but of late English and foreign races alike have been practising this amusement to a greater extent than we ever experienced before, so abnormal has the season of '88 proved.—B. B. ♀.

For the Canadian Bee Journal.

FEEDING IN FALL.

FROM the letter by Mr. John F. Gates in last issue of JOURNAL and comments by the editor, I infer that both have slightly misapprehended my position on fall feeding and late breeding.

In feeding inside the hive I do not pour the feed over the frames and bees, thus besmearing the latter, but pour it in the back part of the hive, touching only the back frame, and perhaps a few bees. Nor would I think of pouring feed into a hive through which it could leak out. The fact is, I see that all my fast-bottom hives are made bottom-tight, filling in any crevices or worm holes with putty where the feed descends inside, and giving it a good coat of paint. There will, therefore, be no leakage or even soakage.

As to raising a lot of young bees "late in the

fall," I do not practice it and never advised it. The brooding ought to be all over and the bees settled down to quiescence some time before being put into winter quarters. Of course, it is better to supply bees late in the fall with winter stores, whether it induces brooding or not, than to put them in with deficient stores and risk them starving, but it is better still to have the feeding and breeding all done at the proper time.

ALLEN PRINGLE.

Selby, Ont., Sept. 26, 1888.

For the CANADIAN BEE JOURNAL.

This Season of the Best.

FRIEND BLACK SECURES 108 LBS. SURPLUS PER COLONY IN SPITE OF DROUTH.

THIS year has been one of my best in bee-keeping. Last fall I put in seventeen and brought through the winter fifteen. Ten of them were outside in chaff and paper packed hives and the remainder in the cellar. The two that died were of the cellar lot. Their food was half honey and half sugar syrup and fed on September 7th. This spring I sold two and hence have now to report results from thirteen.

As soon as the weather warmed a little about the first of May, I began to give them room by adding empty frames, and equalising them in numbers by the removal of young bees and brood from the stronger to the weaker, so that by the middle of June they were well prepared for any honey flow that might come. But the big flow did not come, barely sufficient to keep up brooding. Thus it was throughout June and first half of July. By this time the severe drouth had told on vegetation and I gave up hopes of a clover yield. Basswood and buckwheat and wild flowers were yet to come, but Barrie and lands adjacent are limited as to these, so feeling the need of a month's rest I determined to go and take my bees with me.

The place selected was the bank of the Nottawasaga, three miles to the north of the village of Angus, and 13 miles west of Barrie. By the time they had adapted themselves to their new location the basswood began to yield, but while there were a large number of trees the yield was not large. Then came in several patches of buckwheat which did better. But the bees never struck a "bonanza" till the wild flowers opened out, then it just rained honey in the hives for a few weeks, and when I last extracted my thirteen hives had given me fourteen hundred pounds surplus, had increased to twenty-two, sent forth perhaps a dozen into the woods dur-

ing my enforced absence, and contained from 30 to 60 pounds each for winter stores.

Such a result I attribute in part to the favorable location, though not by any means all to this, for a neighbor in Barrie, to whom I sold one this spring, during the same time that mine were away, gave him over fifty pounds of comb honey, one of an increase, and of stores in both there are not less than 100 pounds of sealed honey. The next and most important factor in the harvest was the numerical strength of each stock. Most of my boxes are two storeys, and I encouraged multiplication till they filled all available bee space between the roof and the bottom board. In this condition they went through the whole honey season. It was really pitiable at intervals, when the weather was unusually warm, to see them in the late evening clinging to the outside of the box with a view to extracting a little comfort from the lesser warmth of the outside atmosphere. Then the quality of my workers had a little to do with the result. I have carefully eliminated all queens that did not come up to a high standard, and have paid equal attention to the drones. At first I emphasised gentleness, not liking the stings, but gradually this quality passed out of sight and prolificness, hardiness and business energy came to the front. I firmly believe with you, Mr. Editor, that the quality of the bee is a factor that ought not to be passed by in the enumeration of causes working for favorable results. And it may be that with the exception of an individual here and there, too little emphasis has been placed here. We plan and work for quality in our horses and cattle, in our domestic and fancy birds, and why not in a structure so delicate as that of the honey bee.

J. R. BLACK.

Barrie, Sept. 26.

For the Canadian Bee Journal.

A GOOD INVESTMENT.

MR. TIPLING'S PLAN OF HIVING SWARMS.

THE colony of Italian bees you forwarded to me on June 21st, has increased to four and all have abundance of stores for winter. Indeed one of them now weighs full 90 lbs., the three others have over 30 lbs. each of stores, and this in less than three months. It was certainly a good investment.

A good deal of scribbling has been done respecting the hiving of swarms, but I have not seen mentioned the following way of placing frames whilst hiving them: Gauge the number of frames that will be required by size of cluster; then commence at one side or end of hive with drawn-out comb, one or two, ac-

ording to cluster, then partly drawn out then foundation, then partly drawn out, then full comb, and then the division board. The stores they have in their sacs, will be deposited in the full comb, while the wax will be used in lengthening out the partly drawn out comb and the foundation, thus giving the queen a fair show as well as the foragers. This was an exceptional fall flow, nothing like it since the fall of 1883, which, however ended on August 24th, when one of my colonies stored 56 lbs. in three days; 35 lbs. of this was surplus, the balance was included in their winter stores. I will forward you something new in the swarming line to be in time for use another year.

WM. TIPLING.

Fenelon Falls.

From the American Apiculturist.

Loss of Young Queens at Mating Time.

DOT a single author of our standard works on bee culture has ever thrown any light on this subject so far as I have seen.

They all tell us that the young queens are lost by entering the wrong hive on their return from their wedding flight, or they may be captured by birds, etc. There is hardly a shadow of truth in the causes paraded to this day to account for so many missing young queens at mating time.

In the early part of May, 1884, I made up about twenty-five nuclei as a commencement of the queen-rearing season, and gave each of them a maturing queen-cell; but before the cells had time to hatch out there came on an unusually cold spell for the time of the year, and the result was the loss of about fifteen out of the twenty-five queen cells by reason of being chilled during the cold night. The weather continued cool for some days and there was delay in getting other cells ready and this delay brought on an abnormal condition in the nuclei, by reason of the presence of too many old and indifferent bees. The sequel was many of these nuclei were an entire failure. They "balled" every young queen given them—always at mating time, and this, notwithstanding they were supplied from time to time with hatching brood with a view to restore the nuclei to normal condition. Here I got my first clue directing to the real cause of the loss of young queens at mating time. The cause is the presence of old, cranky, jealous bees, not necessarily laying workers, for in the cases I have mentioned and in divers others since then, under careful observation, no signs of the presence of fertile layers could be discovered.

I have noticed that under these conditions the young queens are never disturbed till they attempt to seek a mate, and then the persistent

spiteful "balling" commences and nine times out of ten results in the ruin or actual death of the young queen. By means of smoke and a close watch over such abnormal nuclei I have saved the lives of many young queens but such rescued queens are hardly worth the time and labor bestowed on them, as they are generally maimed and cowed by the severe ordeal through which they have passed. The remedy is to give hatching brood to the nucleus, and when the young queen is three days' old, or thereabouts, move the nucleus hive to a new location in the apiary. This will draw off the old bees, as they will go back to the old stand, and the young queen will be left to mate and enter upon her life's labors under the care of young friendly bees.

G. W. DEMAREE.

From the American Agriculturist.

Preparing Bees for Winter Quarters.

THIS work is better begun as early as the first of September, and should never be put off later than the first of October.

During August and September, if little or no honey can be gathered, many queens entirely cease laying, and when winter comes on such colonies are stocked with old bees which must die in large numbers before spring. Bees that are hatched during the autumn months are the only available stock to withstand the winter. If the swarms are found without brood, they should be fed a small portion daily to induce brood rearing. Suspension of brood rearing occurs with colonies, whether they have a heavy or light supply of honey, and the only way in which we can secure a force of young bees at this time of year is by stimulative feeding. Usually one gill to one half pint of syrup daily is sufficient for this purpose. Feeding may continue a week or ten days, if the colonies have abundant stores to carry them through the winter; if not, they should be fed early and more heavily. It may be given them as liberally as they can store it away, until they have a sufficient supply for food during the winter. Bees should not be disturbed during winter by feeding or otherwise. It should be done early, during warm weather, so as to give the bees an opportunity to seal it over before cold weather. Late feeding is the cause of much unsealed honey in the hive. This is an unwholesome diet, as the moisture arising from the bees in cold weather condenses it and it becomes diluted. This produces dysentery, the dreaded winter disease of bees.

Every colony should have twenty-five or thirty pounds of good sealed honey to carry it through the winter properly. The only feed we would recommend is granulated sugar, thoroughly

melted by adding a little water, and bringing it to the boiling point, but it must not boil for any length of time. It should not be thick when fed, but of the consistency of thin molasses. Before feeding begins it would be well to arrange the brood nest. The centre of the hive should contain two or three combs, empty in the centre and lined about the top and ends with sealed honey. Other frames of comb, heavy with honey may be placed at the sides until the hive is filled. During the autumn months we often find frames of combs full of pollen near the brood nest. These should be removed, and frames of honey inserted in their places; past experience has shown that it is not best to confine bees to frames of pollen as a winter food, as it has a tendency to produce an unhealthy condition. Pollen is only necessary when brood rearing is carried on, and should be removed when not needed, but it should be returned the following spring, as early as the weather will permit.

Bees surely need some other treatment during winter than leaving them out in ordinary hives. Different modes of wintering have been adopted, but two methods are most in vogue. One is to place them in cellars, and the other in chaff protection on summer stands, or in other words, in chaff hives. The latter plan is the most extensively practiced. The chaff hive is an outside box or shell, enclosing the hive of bees and much larger. It admits a packing space of two or three inches around the sides, ends and bottom, and from six to ten inches over the top. It is not best to stint this space for packing. We have used chaff hives of different sizes and invariably find the largest size to be the best: four inches of packing space and twelve above the colony, have never failed to give better results than two inches below and six above. A separate shell for chaff is much better than a double walled hive with the space filled with chaff. The hives may be set in or taken out and may be of either one or two stories, the upper story or surplus chamber being removed in autumn, and the whole space filled with loose chaff. In this manner the chaff entirely surrounds the bees with the exception of the entrance, which should be left open, so that the bees may come forth at will when the weather permits. The covering over the bees, and directly under the chaff, should consist of a cloth only, and no board or wood covering should be used. The cloth covering will allow the moisture arising from the bees to pass off, and the chaff above will absorb it; thus the colony will be kept dry. Bees should be placed in winter quarters before cold weather comes and left during winter in perfect quiet. Any disturbance during cold

weather is damaging to them. The apiary should be secluded entirely from stock of any kind, and even a constantly travelled pathway close to the hives is undesirable. Apiaries should not be located close to railroad for this reason. If any colony is found destitute of stores at any time during the winter, a frame of sealed honey can be given to save them; if this is not at hand, slabs of candy can be made from granulated sugar and placed on the frames over the cluster where the bees have access to it. Feed-syrup of any kind must be avoided during winter.

A. H. DUFF.

Ohio.

PROVINCIAL PRIZE WINNERS.

Display of extracted honey in marketable condition, A. J. Cumming, Warina.
 Display of honey in the comb and in marketable condition, 1st A. J. Cumming, Warina.
 Honey in the comb, not less than 10 lbs.—1st A. J. Cumming; 2nd, A. Landry, Thornbury; 3rd, C. Grant, Thornbury.
 Jar of extracted honey—1st A. Cumming, 2nd A. Knight, Catawaqui.
 Beeswax, not less than 10 lbs.—1st, A. J. Cumming, Warina.
 Bee hive, 1st and 2nd, A. J. Cumming, Warina.
 Best wax extractor—A. J. Cumming, Warina.
 Best honey extractor—A. J. Cumming, Warina.

Display of apiarian supplies, silver medal, A. J. Cumming, Warina.

Mr. Cumming made a clean sweep, carrying off all the first prizes and the silver medal. His total winnings amount to \$40. The supplies exhibited by him were from the Jones Company, for whom he is agent.

From the American Bee Journal.

Have Bees the Sense of Hearing?

THIS is a matter, it seems to me, capable of demonstration. That bees do hear in some sense which answers to the sense in which other animals hear, I have every reason to believe. That bees pay no attention to the ordinary din and clash of the outer world about them, proves nothing at all, for the same is true, in a limited sense, with all living creatures.

My grounds are bounded on the one side by a railroad, and from 10 to 14 trains pass by every day. My stock graze in the pasture undisturbed—they rarely ever raise their heads when a train thunders by. The same is true with my bees—they work right along as though all was silent. But if I drop some young bees on the ground, they will find the entrance to the hive if they are in hearing distance of the bees at the en-

trance; if not, they will wander about, crawl into some other hive, or perish in their lost condition.

Sometimes, when hiving a swarm, I dip up a cupful of bees and pour them into the prepared hive; they immediately set up a loud "roar," and swarm promptly *answer*; and they rush into the hive with that joyous hum which thrills the heart of the true lover of bees with joy, that is difficult to describe. Do you say that *vibration* guides the bees, and not *sound*? What is "sound" but an impression made on the *subject* by concussion or vibration of the atmosphere?

To say that sound is not the same thing identically to the insect that it is to animals of higher order, proves nothing, because it cannot be proven that sound is precisely the same thing to the lower animal that it is to the intellectual being. Bees *hear* in a sense which answers all their purposes, and this is all that can be said of other animals.

G. W. DEMAREE.

Christiansburg, Ky.

From Chamber's Journal.

Eucalyptus Honey.

AT a meeting of the Pharmaceutical Society in London a sample of eucalyptus honey was shown, and created much interest from the fact of its containing all the essential properties of these invaluable trees. The existence of this peculiar honey was made known in 1884 by a French traveller, M. Guilmeth, who, while exploring the island of Tasmania, noticed at the summit of one of the eucalypts a peculiar formation, which appeared to him to be a gigantic gall. Having examined it through his glass, he was much surprised to notice that it was frequented by a legion of small black bees, which swarmed around the "gall," or hive as it was now revealed to him. A strong desire to possess this hive led him to order his native followers to cut down the tree, which had a girth of seven metres and a height of eighty metres. The men before beginning their work were well protected over the face and hands, while M. Guilmeth retired to a safe distance to watch the proceedings of the bees during the time the men were at their laborious work of sawing through this large tree. At first no notice was taken of them, but as progress was made the explorer was much interested and amused by the sight which met his gaze. A swarm of the bees flew down to within a few yards of the toilers, and after flying around for a time, rapidly returned to the hive, their places being filled by others. This curious behaviour

of the bees continued until the tree was sufficiently cut through to be pulled to the ground by ropes. When the tree was finally laid low the men were instructed to drive away the queen and this they did after a deal of shouting and beating of utensils. They would have fared very badly had they not been well protected, for the bees greatly resented this interference with their home. The hive and several bees which had lingered were captured, and the honey collected. Upon tasting the honey, M. Guilmeth, much to his surprise, found that it possessed the characteristic odour and flavor of the eucalyptus essences. This he thought so important a discovery as to lead him to forward a shipment of it to a French doctor in Normandy for examination.

Upon carefully inspecting the bees that had been captured, they were found to be of a species not known in Europe, and accordingly the name of *Apis nigra mellifica* was provisionally given to them. They were of a smaller size than the common bee of Europe, and quite black, with a far more developed proboscis. Experiments failed to acclimatise it in Algeria and in France. It is curious to note that in Algeria, where the eucalypts have been acclimatised, it was sought to obtain this honey by means of the Algerian bee. All flowering crops were cut down, and the bees forced to turn their attention to the eucalyptus, with the result that the bees gradually died. To prevent a disaster, fresh flowering plants had to be imported. The eucalypts being biennial, this honey is only obtainable every two years; but it does not during that period lose any of its important constituents. It is of a deep orange color, of a transparent syrupy consistence in warm weather; but in this country it is usually partly solidified. It has the characteristic odor of the eucalyptus essences and also their flavor. It is said to contain about sixty-two per cent. of the purest sugar, and over seventeen per cent. of the essential constituents of the eucalyptus, consisting of eucalyptol, eucalyptene, cymol and terpene, all of which play an important part in the therapeutics of the present day. It was thought that a similar honey could be obtained by mixing these ingredients; and experiments were tried in Paris, but without success, as it was found that the ingredients gradually separated and volatilised off.

Eucalyptus honey is designed to take an important place as a therapeutical agent and as an article of food, on account of the unusually large percentage of sugar it contains and of the presence of the eucalyptus essences, the properties of which as antiseptics and deodorisers are

well known. It is usually given in warm milk or warm water. One or two teaspoonfuls twice or thrice daily have produced beneficial effects on bronchitis, asthma, and diseases of the lungs and respiratory organs, producing elasticity of the lungs and a decided increase of the vocal powers. The breath is said to be perfumed, and a sense of warmth and well-being to pervade the body.

The field for such an important honey would almost appear unlimited, owing to its antiseptic properties; and already cases have been recorded of its use in typhoid gastric infection, whooping-cough, and catarrhs. As a substitute for cod-liver oil, the advent of eucalyptus honey will be hailed with delight by all who will have to undergo the nauseous experience of a course of this oil, while its nutrient powers are not thought to be inferior. Much interest was created a short time since by the chemical analysis of the famous Trebizond honey, which produces narcotic effects upon all who take it, followed by strong excitement and toxic effects. It was carefully analysed in this country, and its ingredients, when separated, were tried physiologically upon animals with a two-fold object; firstly, to ascertain the nature of the poison; and secondly to determine, if possible, by this means, the species of plant the bees producing this honey frequented. The result thus obtained led the experimentalists to suspect a certain plant; and communications were made to friends residing in the districts whence this honey was sent as to the names of the plants mostly abounding in the neighborhood. It was thus ascertained that the bees relied upon a poisonous plant for their honey.

There are now many honeys containing either toxic properties or peculiar odors, which have been traced to the bees frequenting a certain plant; for instance, the Narbonne honey owes its peculiar flavor to the rosemary, which grows so profusely in the neighborhood. Another instance is that of the Mount Hymettus honey, which derives its flavor and odor from the labiates.

With such facts before us, we should not be surprised to see our Australian brethren's example followed in this country, and apiaries started for the production of honey of a distinct flavor, odor, and effect.

Read the grand array of premiums offered on page 555 of this issue.

Rev. E. T. Abbott's price list has been received. He handles general supplies and Plymouth Rock fowl. Address St. Joseph, Mo.

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.

Effect of Perforated Metal on Storing and Swarming.

QUERY No. 207.—Early in the honey season if I pick out twenty good colonies about equal in strength and put perforated metal on the brood chamber of ten to keep the queen out of the top storey, about how much more extracted honey would I get in the season from the ten having the perforated metal on than the ten that had no perforated metal on, and which ten would swarm most in the season?

PROF. A. J. COOK, Lansing, Mich.—I do not think it would make any perceptible difference in amount of honey. The perforated metal is only advantageous as it makes the manipulation more easy and convenient.

G. M. DOOLITTLE, Borodino, N. Y.—Little if any difference as regards honey, and none as to swarming if working for section honey. If working for extracted honey, those with the metal would be the most inclined to swarm.

JAMES HEDDON, Dowagiac, Mich.—It will make no difference in the amount of honey stored. The bees will be most apt to swarm when the excluders are used, but taken all in all, the excluders are labor-savers and a great comfort.

A. B. MASON, Auburndale, Ohio.—Some colonies will not produce as much surplus when the perforated metal is used as when it is not. Taking everything into account I prefer not to use the metal. Those with the perforated metal swarm most with me.

J. K. DARLING, Almonte.—Have not tested the matter, but from my experience with perforated metal, would think 25 to 30 pounds in a good season. The ten with metal would be very likely to swarm sooner than the other, and if metal is used on the new colonies they would be likely to give far more trouble in that matter than if left without.

DR. C. C. MILLER.—I don't know that one lot would store more than the other, but I would not be without the perforated metal between the two storeys on account of the great convenience of having the upper storey clear of queen, brood, and to a great extent of pollen. If any difference, I should expect those with perforated metal to swarm the most.

J. E. POND, JR.—It would depend largely upon other considerations, whether you would make a gain or not. It requires a big lot of bees

to get a big crop of honey, and the supply must be kept up by giving ample breeding room. If this is done in the brood chamber, and swarming is prevented without causing the bees to become loaters, in a good season I should expect one-fourth more honey in the first mentioned ten hives, provided always the season was a good one.

ALLEN PRINGLE, Selby, Ont.—It would depend a good deal upon the character of the season and the quality of the queens. To answer this question with any approximation to definiteness it will be necessary to presuppose a good honey season and a good prolific queen in each colony. Assuming these two conditions, and also equality of queens and colonies, I should say about 40 to 50 per cent. more of honey would be received from the colonies with confining the queen. But you would certainly get more swarms from the colonies without the zinc when the queen had full swing.

EUGENE SECOR, Forest City, Iowa.—I don't think you would get any more honey from the ten having the perforated zinc, possibly not quite so much. The reason for using queen excluding honey boards is not that we get more honey, but because what we do get is more free from taint of brood and bee bread; the combs are more easily cleared of bees when extracting if no brood is in them and the operator can work faster and more pleasantly if he does not have to try to avoid uncapping brood. Unless the brood chamber is of ample proportions I think the tendency to swarm is slightly increased by the use of the perforated metal.

G. W. DEMAREE, Christianburg, Ky.—I do not use the perforated excluders with the view of obtaining a greater quantity of surplus honey, and whoever does use them with that end in view will be disappointed. *Hive fixtures* do not gather honey—the bees must do that. I use perforated excluders to prevent the queens from entering the surplus department of the hives. Observation and experience teaches me that I cannot take the very best quality of honey with the honey extractor if there is brood in any quantity in the surplus combs, because the bees are sure to have more or less of watery (thin) honey deposited in the cells contiguous to the brood, and this thin honey and other impurities connected with brood rearing will sting out with the finished honey and damage it, judging from my own experience, the perforated excluders do not affect the quantity of honey gathered, nor do they affect the inclination to swarm. When producing comb honey in section cases, I do not use the excluders, as they are not necessary.

WM. McEVoy, Woodburn, Ont.—I never used any perforated metal, but I believe that in a good honey season, if the same combs were kept on each colony all summer and that all were extracted every time as soon as ready, the ten with the perforated metal on would produce about 250 lbs. more than the ten with no perforated metal on. The queens would go up in the top storeys of the ten which had no perforated metal on and start so much brood that there would not be much space left until the brood hatched out, which would take about

three weeks, and that right in the honey season, the very time that we needed the storage room the most. As to which ten would swarm the most in the season, I think the ten with no perforated metal on would, because they would be the most crowded with both bees and brood. The ten with the perforated on would have no brood in the top storey, and each time the honey was extracted it would give plenty of room for more. When I find the top storeys so full of brood that there is very little space left for honey, I make artificial swarms and use the brood in the top storeys to make them; or if any of them swarm I take off the top storeys full of brood and hive the swarm in it. I then put the swarm on the old stand and put the old hive on a new stand. I then put a hive half full of combs on top of the new swarm. I spread the combs apart and put comb foundation in between each comb, the very place where the bees will soon make it into the most perfect comb. As soon as the brood in the old hive is hatched I take the combs out and extract them, and exchange them for a top storey full of brood. Those empty combs, put in the top storey where the brood was, will give the bees plenty of space for honey, and when the brood from the top storey hatches out in the old hive, it will make a strong colony. For section honey I always take the top storey full of brood to hive the first swarms in so that the bees will have nothing to do but go right to work at once in the sections, which they always do, and as the brood hatches the colony becomes stronger every day, so that the bees will keep right on at the sections until the very close of the season. By hiving first swarms in hives full of brood, I always got more section honey and better filled sections than I ever could any other way. Where a bee-keeper works mostly for extracted honey and doesn't want much increase in bees, I think the perforated metal would be just the thing to use.

If you extract from the top story alone, should think the yield would be double with a good queen, as she would fill both chambers with brood were there no honey board on. If you extracted from both stories there would not be much difference. The ten with the metal would swarm the most.

Amount of Dead Bees from 100 Colonies.

QUERY No. 208.—One hundred good colonies put in a good dry and dark cellar about the 10th of November, and the thermometer to keep steady at about 45°. About how many quarts of dead bees would there be on the cellar floor by the 10th of March?

J. K. DARLING, Almonte, Ont.—If colonies were wintering well, about ten or twelve quarts, and none in the hives.

JAS. REDDON, Dowagiac, Mich.—Perhaps a

whole lot, and maybe just a few, whether they winter safely or no.

PROF. COOK, Lansing, Mich.—Frequently two bushels or more and no harm either. There is a great difference in years.

DR. MILLER, Marengo, Ill.—That depends. If the bees are mostly old, many; if mostly young, few; I should not think a bushel much out of the average.

A. B. MASON, Auburndale, Ohio.—That will depend somewhat upon the age of the bees when put in the cellar. Ordinarily from 16 to 40 quarts with me.

G. M. DOOLITTLE, Borodino, N.Y.—That depends on the age of the bees when placed in winter quarters. One-half bushel would be a small loss, and three bushels not beyond the limit sometimes found when bees winter fairly well.

G. W. DEMAREE, Christiansburg, Ky.—I really don't know. I have never had the opportunity to test the matter. Bees wintered on the summer stands come off mighty well if one-third of the colony as it goes into winter quarters live to see the apple trees in bloom.

WM. McEVoy, Woodburn, Ont.—Not more than 32 quarts if the bees were crowded on five or six combs of solid sealed stores of the very best quality, and given full summer entrance and never disturbed. Then the bees would keep very quiet and consume less stores.

J. E. POND, North Attleboro'.—Who can tell? Theoretical questions like these cannot be answered with any degree of certainty in the present state of our knowledge, or lack of knowledge, of the wintering problem. Too many factors enter into the problem to allow any one to more than guess. Some hives might lose a quart, others the whole.

ALLEN PRINGLE, Selby, Ont.—This would depend so much upon conditions that are not stated in the query that anything like a definite answer is impossible, while an answer predicated on the fullest data would necessarily be a guess. Of course we can fairly predict what will be from what has been, under similar conditions. If the bees put in are mostly young, I should say there would be 10 to 20 quarts. If the bees put in are largely old you would probably be able to gather up 40 to 50 quarts by the 10th of March.

EUGENE SECOR, Forest City, Iowa.—That is hard to say for the reason that the mortality is much greater some winters than others, without any apparent cause. If you should lose two bushels the bees might still be in fair condition and if you can winter with a loss of a bushel or less, I should say that was very successful. We may expect that a great many bees will die of old age before spring, and it does not mean unsuccessful wintering simply because the bees which have become useless crawl out of the hive to die.

With good food, cellar dry, bees dry, and everything just as it should be, not more than, if as much as, twenty-five quarts. Have wintered in clamp with not more than ten quarts to the hundred colonies.

SUNDRY SELECTIONS.

F. M. RULE.—Bees have made no honey until about the 1st of September, but they are storing a great deal now. Very few swarms here this season.

St. Jacob, Illinois, September 24, 1888.

A MODEL SUBSCRIBER.

CAPT. DENNIS KIRKLY.—The JOURNAL is perfection and a most welcome weekly visitor. The bees are still bringing in loads of nectar from golden-rod, asters, smart-weed. I think there is still two weeks' work for the bees. There never was such a yield in the fall, but still it pours in. They have piled it up, filling three supers and the brood-nest so as to crowd the queen and youngsters to the bottom. I have no extractor. 10 cents for one-pound sections is what I am offered at home. I am an old man of 60, live alone, work two farms, keep 150 fowls, and you can tell how busy I am when I have to write this two hours before daylight so as to lose no time; but I must pay for my JOURNAL even if I lose sleep to do so.

Toolesburg, Lewis County, Iowa.

VALENTINE SELWIND.—I started this spring with seventy-eight hives and used all the given remedies for the prevention of swarming, and with a poor season for honey and what went to the woods I have increased to a hundred. I offer \$25 reward for a non-swarming hive adapted for comb honey, but none but truthful persons need apply. I obtained only 800 lbs. of comb and 400 lbs. of extracted. This was from basswood, sweet clover and two kinds of red clover. My bees gathered no fall honey. I will not give up for I commenced keeping bees in 1846, when I made a lot of straw hives but left them in Germany when I came to America. In 1852 bought a colony and had increased to 14 when I lost them all. In 1875 purchased three and when I had 24 on hand 21 died; kept the remaining three until I had 45. Four years ago lost 41, bought four and have now the even hundred, though for the last two years I have worked on the non-swarming system. The best plan I found was to give plenty of room and let them swarm; hive on empty frames, remove parent hive, remove queen cells and double up the hives that have swarmed. In 1887-8 I wintered in cellar and lost but one. It may be foreign to this subject but I have read such outrageous reports that I think bee-men more than the equal of fishermen at 1—.

Roashton, Wood Co., Ohio.

BUSINESS DEPARTMENT.

Some splendid queens of Carniolan extraction send post paid two at once for \$1.

In return for the names of ten bee-keepers sent us on a postal, we will send the "Bee-Keepers' Dictionary" value 25 cents.

No matter what kind of printing you want, it can be done at this office. Visiting cards, bill heads, envelopes, pamphlets, note-heads, anything. Write for figures.

For some time past we have filled all orders for queens by return mail. We have a good supply on hand, especially of Carniolan crosses, which will be sold at 20% discount where two or more are ordered at one time.

TEMPERATE YOUNG MAN of unquestionable character can invest in a profitable business, yielding good profits. Salary. Address BOX 500, BEETON.

PREMIUM LIST.

The following premiums are now offered to readers of the CANADIAN BEE JOURNAL. We have made special arrangements for the purchase of these articles, and are in a position to make the offer we do. One dollar must be sent with every name that is sent in, though they do not need to be sent all at one time, nor from one post office. The subscribers may be either new or old. If working for any of these premiums, the person so doing must advise us of the fact when they send in the first names. All articles which have to be sent by freight or express, will be sent, charges to be paid by recipient :

TWO NAMES WITH \$2—	
One copy Heddon's Success in bee culture	50
" " Hutchinson's Review, one year	50
THREE NAMES WITH \$3—	
One copy Miller's, Year among the Bees.	75
" " Automatic Fountain Pen.....	75
FOUR NAMES WITH \$4—	
One copy Cook's Manual.....	\$ 1 25
" " A.B.C.—Root.....	1 25
" " W'kly Globe to 31st Dec. 1889.	1 00
" " " Mail " " " "	1 00
" " " Empire " " " "	1 00
" " " Western Advertiser	1 00
" " " Witness, Montreal.....	1 00
" " Gleanings, one year.....	1 00
One year's subscription to any \$1 weekly or monthly published in either Canada or the United States.....	1 00
One Smoker, No. 2, plain.....	1 25
" Honey Knife, ebony handle.....	1 15
Two best Canadian Feeders, made up..	1 00
One Mitchell Frame Nailer.....	1 25

SIX NAMES WITH \$6—	
One Force Pump with Sprayer.....	2 00
" " pair Rubber Gloves, post paid.....	2 00
" " Comb Carrying Bucket.....	1 50

EIGHT NAMES WITH \$8—	
One set Anatomical Charts, with key....	2 50
" " Queen Nursery (20 cages)	2 50
" " Uncapping Arrangement.....	2 25

TEN NAMES WITH \$10—	
One No. 1 Wax Extractor.....	4 00
" " Heddon H. (made up) complete, ptd.	3 25

TWELVE NAMES WITH \$12—	
1000 Sections—one piece—any size.....	4 50
One Copying Press, Simplex.....	4 50
Individual right, Heddon Hive.....	5 00
One Ripening Can.....	4 50
" " Bee Tent—netting cover.....	4 00

FIFTEEN NAMES WITH \$15—	
Seven Combination Hives, fitted up for extracted honey, with second story..	6 30
One Extractor—any size frame—old style gearing.....	7 00
One Lawn Mower, best make, 12 in....	6 50

EIGHTEEN NAMES WITH \$18—	
One Farmers' Union or Family Scale, ½ oz. to 240 lbs.....	8 00
One Extractor—best made—to take any size frame.....	8 00

TWENTY NAMES WITH \$20—	
10 Combination Hives, for comb honey.	9 00
10 S. W. Jones Hives and Frames.....	8 30

TWENTY-FIVE NAMES \$25—	
One Union or Family Scale, 240 lbs. with tin scoop.....	10 45

THIRTY NAMES WITH \$30—	
3000 Sections—one piece—any size.....	13 00

THIRTY-FIVE NAMES WITH \$35—	
Two Colonies Bees with good queens....	16 00

FORTY NAMES WITH \$40—	
5000 Sections—one piece—any size.....	20 00
One Portable Platform (19 x 14) Scale, 500 lbs. with wheels.....	18 00

FIFTY NAMES WITH \$50—	
Three Colonies Bees, good queens.....	24 00

SIXTY NAMES WITH \$60—	
One Farmers' Platform Scale, with wheels 1,200 lbs., steel bearings.....	26 00

SEVENTY-FIVE NAMES WITH \$75—	
50 Combination Hives, for comb honey..	31 50

ONE HUNDRED NAMES WITH \$100—	
50 Langstroth Hives.....	37 50

ONE HUNDRED AND FIFTY NAMES WITH \$150—	
One Combined Barnes' Foot Power Machine	60 00

TWO HUNDRED NAMES WITH \$200—	
10 Colonies Bees in Combination Hives, with good laying queens.....	80 00

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The following is a partial list of small wares, tools and stationery, which we carry in stock. Additions are constantly being made. We buy in very large quantities, and are therefore able to quote rock bottom prices. There is always something in these lines you want and they can be enclosed with other goods or sent by mail. The amount of postage is marked opposite each article, except those excluded from the mail.

5 CENT ARTICLES.

Postage.		Per 10 lots.	Per 25 lots.
3	Awls, brad, three assorted with out handles.....		
1	Blotting paper, 10 sheets note size.....	40	88
3	Bag for school books.....	45	1 05
2	Brush, round, for paint, paste or varnish.....	40	95
1	Chisel handle.....	45	1 10
8	Crayons, colored drawing.....	45	1 00
1	Eraser combined ink and pencil	45	
1	Letter openers, nickle plated, very handy.....	40	
1	Memo books, 32 pages, stiff cover.....	40	90
1	Note paper, 1 quire, extra quality, ruled or plain.....	40	80
2	Pad 100 sheets scribbling paper	45	
1	Pass books 3 "Railroad" 16 p. paper cover.....	45	1 00
1	Pass books, 2 Steamboat 32 p.p.	45	1 00
1	Penholders 2, cherry, swell....	40	
1	Ruler, hardwood, flat, graduated to $\frac{1}{8}$, bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....		
2	Scribbling books, 200 pages....	40	90
2	Tacks, cut, 2 papers 1, 2 or 3 oz.	45	
8 CENT ARTICLES.			
	Butter stamps 3 or 4 inches....	\$ 75	\$1 75
	File, 3 corner, 3 or 4 inches....	75	1 75
	Ink-well, glass, safety, cannot spill.....	65	
	Mucilage, good sized bottle....	70	
	Oil cans, zinc.....	65	
1	Pencil, automatic indelible....	75	1 75
6	1 doz. Lead Pencils, No. 852, very good.....		
1	Time books for week or month.	75	
10 CENT GOODS.			
	Bill fyles, harpshape.....	\$ 90	2 10
2	Book of 50 blank receipts with stub.....	85	2 00
2	Book of 50 blank notes.....	85	2 00
3	Brush, flat, for paint, paste or varnish.....	80	1 90
8	Butter spades 9c. each.....	80	1 90
2	Boxwood pocket 1 foot rule....	90	2 10
	Chisel, firmer $\frac{1}{4}$ inch.....	90	

Postage.		Per 10 lots.	Per 25 lots.
2	Clips for holding letters, etc....	90	2 00
	Due bills, 100 in book with stub	85	1 80
2	Envelopes, 3 packages, white, good, business.....	95	
2	Files, 3 cornered, 5 inch.....	90	2 10
3	Lead pencils, 1 doz. plain cedar Fabers 581.....	90	
2	Lead pencils 3 red and blue....	90	
2	Note heads, pads of 100 sheets..	90	
	Paint brush, No. 7.....		
2	Pocket note book, 3x5 in., 125 pages, stiff cover with band grand value.....	90	
1	Rubber bands, five, large.....	80	
1	Ruler, brass edged, flat, hardwood, bevelled, graduated to $\frac{1}{8}$ inch.....	95	2 25
4	School bag, medium size.....	90	2 10
	Tacks, cut, $\frac{1}{3}$ packages, 4 oz.....	90	

13 CENT ARTICLES.

2	Belt punches, Nos. 2, 3, 4, and 5	1 25	\$3 00
	File, 6 inches long, flat.....	1 25	2 90
	" 5 " " round.....	1 25	2 90
	Shce knives, 4 inch blade.....	1 20	2 75

15 CENT ARTICLES.

	Chisel, firmer, $\frac{1}{4}$ and $\frac{3}{8}$ in.....	1 45	
12	Dextrine, $\frac{1}{4}$ lb. pkge. for pasting		
	Glue, 1 lb. ordinary.....	1 30	
	Hammer, iron, adze eye.....	1 45	
3	Lead pencils, 1 doz., good quality, Faber's 971.....		
5	Note paper, 5 quires, 3 lbs., extra value.....	1 40	3 35
	Paint brush, No. 5.....		
6	Rubber bands in gross boxes. For queen nursery.....	1 30	
4	Rule, 2 foot, a splendid line....	1 40	3 40
	Screw driver, 5 inch, round bit, hardwood handle.....	1 40	
2	Statement heads in pads of 100	1 20	
	Tack hammers, magnetic.....	1 40	3 30
12	Papeterie, 24 sheets fine note paper and 24 square envelopes in neat box.....	1 40	3 35

18 CENT ARTICLES.

	Bit, best make, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	1 65	4 00
	Glue, LePage's liquid, with brush	1 65	
	Oilers, automatic.....	1	

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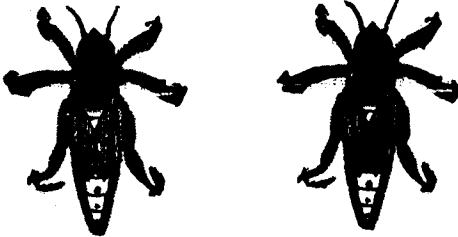
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QUEENS.



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	Carriolan 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.

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MANUFACTURED BY

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At hard pan prices.

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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.

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Our prices are as follows:—

1000	\$ 4 50
3000	13 00
5000	20 00
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All orders entered as received, and shipped with promptness. Order early, to avoid the rush. These prices are spot cash.

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