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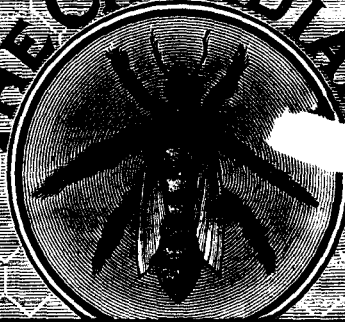
VOL. IV. NO. 24

1888

SEPTEMBER 5

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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WE CLUB

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Cook's Manual, cloth.....	\$2 25	\$2 00	
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C. C. Miller.....	1 75	1 60	
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by Rev. W. F. Clarke.....	1 25	1 15	

Books for Bee-Keepers.

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 :

1. QUEENS, And How to Introduce Them .10
 2. BEE-HOUSES, and how to build them, .15
 3. WINTERING, and preparations therefor .15
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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.
- A. B. C. in BEE CULTURE by A. I. Root. Price, cloth, \$1.25 paper, \$1.00.
- QUINBY'S NEW BEEKEEPING, by L. C. Root, Price in cloth, \$1.50.
- 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 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, \$2.00, per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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

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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.

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 (post) drafts accepted at par in payment of subscription and advertising accounts.

ERRORS.—We make them; so does everyone, and we will cheerfully correct them if you write us. Try to write us good naturedly, but if you cannot, then write to us 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 35 cents each, post paid, with name printed on the back in Gold letters. Subscription Price, \$1.00 per Annum Postage free for Canada and the United States; to England, Germany, etc. 10 cents per year extra; and to all countries not in the postal Union, \$1.00

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All advertisements will be inserted at the following rates

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	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
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THE CANADIAN BEE JOURNAL

AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.40
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keepers' Guide," monthly.....	1.40
"Rays of Light".....	1.25
"The Bee-Hive".....	1.40
"Beekeepers' Review".....	1.30
"Beekeepers' Advance".....	1.30

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

TIME, LABOR AND MONEY

SAVED BY USING THE

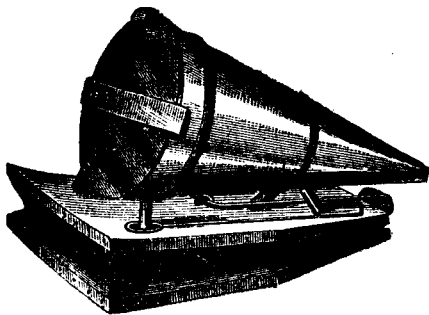
Perfect Fruit Preservative.

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. Ld.,
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. Ld., Beeton, Ont

'Practical Hints to Bee Keepers'

Sent free. Address

American Apiculturist.
Wenham, Mass, U.S.

SEND US \$2.50

And we will send you a good serviceable 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.

"FEEDING BACK."

There was probably never before gathered together so much reliable information upon the above subject as is to be found in the

THE BEE-KEEPERS'

REVIEW.

For July. If you have, or expect to have, unfinished sections, read this number. If you have failed to make a success of "feeding-back," its perusal may show you where you made your mistake. The August issue will be a "Fair No."

Price of the REVIEW is 50 cents a year. Sample free. Back numbers can be furnished.


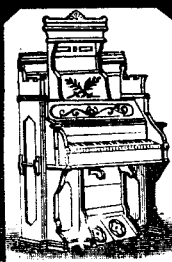
THE PRODUCTION OF COMB HONEY.

A neat little book of 45 pages, price 25 cents. The REVIEW and this book for 63 cents. Stamps taken either U.S. or Canadian. Address

W. Z. HUTCHINSON

613 Wood Street, Flint, Mich.

"BELL"

PIANOS & ORGANS
ARE THE LEADING INSTRUMENTS
FOR PURITY OF TONE & DURABILITY
& CATALOGUES FREE

W. BELL & CO. GUELPH, ONT.

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.

Note Heads, good quality.....	500	1000
" linen.....	\$1 15	\$1 90
Letter Heads, Superfine.....	1 25	2 00
" Linen.....	1 75	2 50
Envelope, business size, No. 7,	2 00	3 25
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.

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, GRAND LAYERS.—Undest It-aliens \$1; a few mismatched, in 2nd season, clipped, 50c.; Virgins 50c. Foul brood never in this locality. R. KNECHTEL, Brussels, Ont.

SECTIONS! SECTIONS!

At low prices, and sample free. Send card for sample. Received first prize for

COMB FOUNDATION!

Toronto Exhibition, 1887. Brood and Section Foundation by return express. All kinds of Bee-keepers' supplies,

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

LANGSTROTH FUND.

A GOOD full length photograph of Rev. L. L. Langstroth, mounted on cabinet card, will be sent to any address for 50 cents, one-half to go to the Langstroth fund. Address,

THOS. B. REYNOLDS,
Dayton, Ohio.

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.

WANTED.

Comb Honey in Sections. State price.
R. B. GRAY Pembroke' Ont.

FINE ITALIAN

FOR REMAINDER OF SEASON OF 1888.

1 untested queen	75
3 " "	2 00
1 tested " "	1 50
3 " "	4 00

Invariably by return mail, and safe arrival guaranteed.
W. J. ELLISON,
Stateburg, Sumter Co., S.C.

NEARLY 30 TONS OF
DADANT'S FOUNDATION

SOLD IN 1887.

IT IS KEPT FOR SALE BY MESSRS.

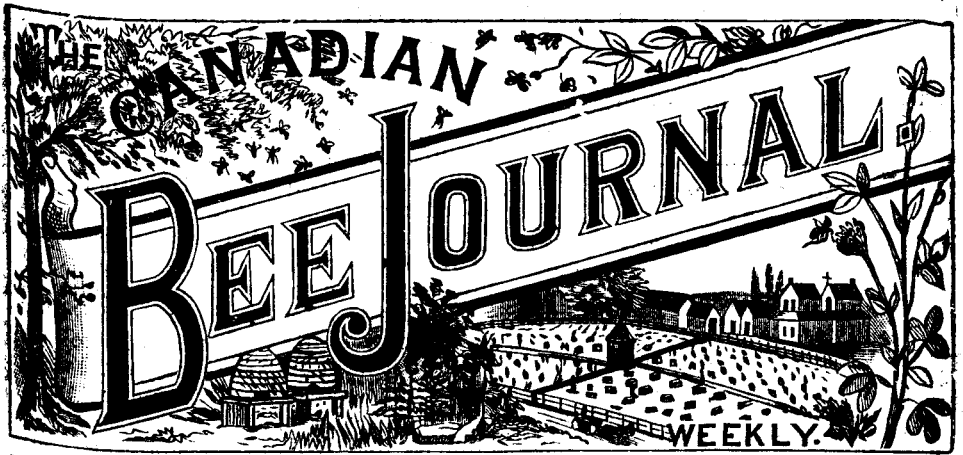
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 - C. F. MUTH, Cincinnati, O.
 - JAMES HEDDON, Dowagiac, Mich.
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 - CHAS. H. GREEN, Berlin, Wis.
 - CHAS. HERTEL, Jr., Freeburg, Ill.
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 - M. J. DICKASON, Hiawatha, Kans.
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 - J W POKTER, 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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 - G. B. LEWIS & CO., Watertown, Wis.
 - PAUL L VIALLO, Bayou Goula, La.
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 - J MATTOON and W J STRATTON, Atwater, Goodell and Woodworth Mig. 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. GOULD & CO., Bramford, 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.

BEE-KEEPERS!

SAVE money by printing your name and address on your labels, cards, etc., yourself. Your name on Rubber Stamp, 15c. Name and address, 25c. Any number of lines at 15c for first, and 10c for each extra line. If ink and pads are wanted with stamp, add 15c to these prices. Club amounting to \$1.25 sent for \$1. If you send sample of any name printed, to give us an idea of the size and shape you want we can suit you.

Gem Rubber Stamp Co.,
MALAKOFF, ONT.



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

Vol. IV. No. 24

BEETON, ONT., SEPT. 5, 1888.

WHOLE No. 180

EDITORIAL.

A CLUB of society women in London is going to start a large poultry farm near London. Bee culture is also included in the scheme.

The Bay of Quinte Bee-Keepers' Association met at Belleville on the 29th. Full report at an early date. The report of honey yield is the poorest yet received.

The apiary of Mr. D. Auld, on Jones ave., Toronto has again been visited by a dishonest party and damage to the extent of between \$50 and \$60 done. Several hives were destroyed and serious damage done to others. A reward has been offered for such information as will lead to the conviction of the guilty ones.

The owner of some homing pigeons at Hamm bet that on a fine day twelve of his bees would beat a like number of carrier pigeons in making the distance (one hour) between Hamm and the town of Rhynern. Twelve pigeons and twelve bees (four drones and eight working bees, all powdered with flour) were taken to Rhynern, and simultaneously set free. A white drone arrived home four seconds in advance of the first pigeon, the remaining three drones and the second pigeon arrived together, and the eight working bees preceded

the ten pigeons by a length.—Tuesday's dailies.

We question whether the writer of the above knows a bee from a pigeon—if he did he would not pen such a ridiculous statement. Bees liberated as stated would simply fly around, mark the location and remain there. There is no question about the rapid flight of bees, but to train them for a race of one hour would be a big undertaking. We do not doubt that on a calm day bees could travel quicker than pigeons, but in the above clipping it seems to have been a remarkably close contest when the bees only won by "a length."

We have received a copy of the revised edition of Professor Cook's "Manual of the apiary." The work has been carefully revised, and additional matter added. The price is slightly increased. The new features will be noticed in these columns next week.

We beg to direct the attention of our readers to the advt. of Thos. B. Reynolds, of Dayton, O. By reading the advt. it will be seen that one-half the proceeds from the sale of these photographs is to go toward the Langstroth fund. The photograph (cabinet size) is very good, and represents the good old man in a standing position, leaning on his cane, with a beautiful grove as a background. Mr. Reynolds is an amateur photographer, and as such deserves credit for the very good work he has

done. He also should receive much credit for the disinterestedness which prompts the generous offer he is making.

OUR OWN APIARY.

PERFORATED METAL DIVISION BOARDS.

—THEIR USE IN SAVING HONEY AND STORES.

PROVEN to be a perfect success, there is no better investment for the apiarist than the perforated metal division board. In our apiaries we use principally the Jones hive, with twelve frames, each with one foot of comb. Large hives, as these, are frequently found after the honey season to contain more brood than is desirable, when, as we have stated heretofore, we close the queen from a portion of the hive. She is confined on a few combs—just sufficient to keep her from becoming dissatisfied—thus allowing the workers to store in the balance of the frames and preventing Her Highness from raising a quantity of brood not then desired. At any time when it is thought expedient to limit her in this respect this plan may be adopted. Ever since we first introduced perforated metal to American apiarists we have practised it more or less. True, it was uphill work inducing many to adopt it, but its growth in popularity has made it one of the leading requisites in apiculture.

This season we find it of more importance than in any previous year. Hives in which the queen has been allowed only enough frames to carry on brood-rearing sufficient to maintain the strength of the colony at the standard, have stored from twenty to sixty pounds of honey, whilst those in which she was allowed full swing have brooded so freely that they consumed their stores almost as quickly as gathered. Though our Combination hive contains but eight frames, or seven and a division board, we find the metal of equal importance in its manipulations. This hive has one-third less space for brood-rearing, but the same loss of winter stores occurs from the bees consuming an unnecessary amount of honey in fall brooding, unless the queen be confined. Although late in the season we are putting fifty colo-

nies into this hive, giving the queen two and in some cases three frames.

The advantages of this plan are many. Instead of having the combs all partially filled with brood with a little honey at the top of each, the brood is solid in a few combs, the others with honey, and either can be removed as wished. At the bottom of the full store combs the bees clear a small space on which they cluster for winter; their stores are in a compact form and they do not have to spread or move around unnecessarily. The more compact the cluster the quieter they remain, less stores are consumed, and the bees winter better.

The next step in apiculture will perhaps be a saving of, say, 25 lbs. of honey now consumed per colony each year. If we are not to have such large flows as we have had, we must devise means to save more of the gathered nectar. This can be effected by proper management; we must calculate on the probable season, or by managing the bees according to our average seasons we are not liable to go far astray, particularly if we watch the flora carefully. The apiarist must manage as his observations direct. At a time when honey is abundant and the bees storing rapidly this care seems of minor importance for the reason that we appear satisfied with a good yield. Yet why should we not try to secure all that is possible. This question deserves more attention than it has received, and the proper use of the perforated metal queen-excluding board is destined to play an important part in the answer.

FRIEND STALHAMMAR'S LETTER.

IN the last number of this journal Friend Stalhammar gives his system of clamp wintering as practised by him with good results in Sweden. Similar plans have been tried in Canada and where the ground is suitable and a dry covering of sufficient thickness employed the outcome has been satisfactory. Mr. S.'s clamp is on the same principle as Mr. Bray's which has been illustrated and described. The clamps are arranged somewhat differently, but each would apparently secure about the same temperature, and we can see no reason why such a system of wintering,

with suitable soil and surroundings should not be desirable.

We agree with the writer that when bees are in a large cluster it would be difficult to secure a temperature sufficiently cold to freeze them to death. The colder it is the dryer the air, which is one of the essentials for successful wintering. Our Ontario climate—in this section at least—is not suitable for trying the McFadden plan. Farther north where there is a steady winter, unbroken by a thaw, the snow remaining on the ground from fall to spring and always dry, matters might be different. If our Swedish co-worker would make a test of the McFadden plan in his northerly location and report the results, he would, if successful, cause quite a stir amongst the many who declare McFadden has no existence.

That bees should be found alive after spending an inclement winter in a straw skep without combs and covered with snow would indicate that something in this connection has yet to be learned. We remember attending a Canadian convention a few years ago, where a gentleman made a statement that in order to take honey from a gum he had dug a hole in the ground in the fall, shook the bees into it and covered them with earth. The next spring the earth was removed for some cause or other, allowing the warm sunshine to fall on the bees. The warmth seemed to resuscitate them, they came to life and were quite active. This would be after a confinement of five or six months without food. None of his hearers had sufficient faith to perform a similar experiment—had we done so we might not have changed our opinion. The gentleman persisted in his statement and assured the convention that it was a fact and that he was not joking as we had thought. We have known colonies to winter thoroughly well where the snow was covering them in solid drifts from ten to fifteen feet in depth. Later in the spring when the snow was shovelled off, in fact after seeding had commenced in April, a hollow was found in the snow opposite the entrance varying in diameter from seven inches to two feet. After the entrance was cleared Old Sol had to shine on those bees a long time before they awakened to realize that the glad spring time had

come and that their season for gathering nature's nectar was at hand. It is impossible to say how long the colonies would have remained in that condition had they been undisturbed and the snowy covering unmelted, but judging from appearances we should say for months. Residents in the regions of heavy snowfalls can try this with every assurance of success provided the hives are kept continually buried under the snow. Perhaps if we only knew "just how" to do it we might be able to enclose our bees in air-tight jars as we do fruit and keep them perfect until they could be poured on the combs when the harvest was on. There is this difficulty however. McFadden freezes the bees, the housewife scalds the fruit; freeze the bees we cannot and scalding does not seem as though it would answer!

IRREGULAR FOUNDATION.

Much interest attaches to Mr. Stalhammar's reports of the working of the irregular celled foundation. We would ask him to send us full reports of past experiments. To such experimenters as our correspondent the entire apicultural fraternity is indebted.

Concerning his use of iron rods in lieu of the screws on the Heddon hive, his invention is practically the same as our own except that he uses iron where we use wood. Another instance of two men widely separated having the same idea.

We have sent our fyle of the Swedish Bee Journal to a friend for translation, and we shall publish Mr. Young's notes if worthy. His statement that Professor Cook, Messrs. Heddon, Hutchinson and Jones belong to a "ring" for getting money out of "other stupid bee-keepers" is too ridiculous for comment. But what does he mean by saying "other stupid bee-keepers"? We don't object at all to belonging to a "ring," if such were possible, with such *grand* men as Professor Cook, Heddon and Hutchinson in it.

For the Canadian Bee Journal.

A NOTE OF WARNING.

I HAVE discovered that a considerable proportion of the honey gathered in the fore part of the season, and in July during the drought, has candied in the comb in the hives. This is a very unusual occurrence, and is probably due wholly or in part to the drouth.

That the nectar gathered during the very dry, hot weather is unusually dense when first gathered and deposited in the comb, I have long been aware; but I have never noticed before that such honey candied before fall in the hives. It is quite possible that under such circumstances the bees are less thorough in the capping process, deeming it unnecessary; and if so, this is another proof that they are not quite infallible in all their instincts. Be the causes what they may, the fact is of much importance to bee-keepers. It is quite possible that honey candied in the comb not infrequently plays a considerable part as an unknown cause of winter mortality. I just now remember examining three or four colonies of bees a few years ago in the spring that had died in February in a neighbor's cellar, and all the honey (or very nearly all) was candied in the comb.

Now, as it is probable that the honey has candied more or less in other apiaries besides my own, especially where the drouth extended, I write this note of warning to bee-keepers to examine their hives in time so that the candied honey wherever present may be replaced by proper winter stores, and thus save mortality from this cause.

THE WEATHER AND FALL PROSPECTS.

Fortunately after the unprecedented drouth and dearth of honey this season the fall is proving fairly favorable. Within the past three or four weeks we have had splendid rains extending pretty generally throughout the parched districts, the consequence of which is that the face of nature is completely transformed from a parched red to a pleasant and splendid green, the fields of buckwheat crowned with white and diffusing a nectar aroma intoxicating to the bee-keeper as well as the bees. They have been working very well on the buckwheat for a week or more, the only drawback being an occasional cool windy day and frosty night. The two frosts we have had so far, however, have done but very slight damage, the last one last night, the 27th, having been tempered and neutralized by a friendly breeze. Unless the temperature is considerably below the freezing point, we need not fear for leaf or flower if the wind keeps stirring briskly through the night. Last night its friendly services saved many a broad acre of buckwheat and corn.

The prospect now is that the bees will be able to get winter stores in plenty and possibly give us a surplus. But the hives were so literally empty after the drouth that, with brooding, they fill up slowly. Besides, the buckwheat flow which only lasts ordinarily three or four hours a day is quite different from the clover flow or

the basswood flow, which lasts ordinarily from morning till night—long days at that. The brooding is going on all right, the colonies are healthy and strong, the honey that candied prematurely has been removed, and we hope to go into winter quarters in good shape.

ALLEN PRINGLE.

Selby, Ont., August 28th, 1888.

We are inclined to think that another cause of granulation of honey in the combs is the long time it has remained uncapped. In such a summer as we have just passed through where the bees can gather but slowly they do not seem inclined to seal the cells over. We have noticed that honey standing in the cells in this way for some time would commence to granulate. Had this season's honey been more quickly sealed the probability is that it would not have shown signs of candying so early. Frequently we have observed that honey is unusually dense in dry seasons. Clover seems to show a greater difference in this respect than basswood. This due to the position of the flowers. The linden is upside down as it were, the clover and thistle stand erect catching the dew and rain rendering their nectar thinner. Honey that has granulated hard in the combs is not advisable for winter stores. But where the granules are merely seen floating through the liquid portion we think no harm would result from its use provided a little good sugar syrup were fed with it. In the spring granulated honey can be fed. The bees will remove all the moisture dropping the sugary particles on the bottom board whence they may be gathered and melted; or by sprinkling them with diluted syrup or slightly sweetened water the bees will consume nearly the whole.

One reason for disliking granulated honey wholly as winter stores is our belief that the heat of the bees could not possibly liquify it be the colony as strong as may be. Further, we do not think they could do it in midsummer. Friend Emigh once sent us some sections part filled with honey gathered from the fields, the balance extracted honey fed back to complete the sections. After keeping two years the "field" honey remained beautifully liquid. That fed back and sealed in the same sections was granulated as solid as tallow. To

see if this granulated honey would melt in the cells without the combs following suit, we placed the sections near the ceiling not far from a stove and pipe in which a fire was constantly kept. The building has ten inch walls, and walls, floor and ceiling are packed with saw-dust, rendering the place absolutely frost proof in the coldest weather. A little fire kept the temperature in the region of the sections from 90° to 110° and occasionally as high as 125°. This heat was maintained for days and though the cappings would become soft and melt, the honey made no offer to liquify. Testing with the knife showed no appreciable difference from its condition when first placed there. Since then we have no hopes that bees can reduce granulated honey to a liquid condition.

We think all bee-keepers will feel grateful to Mr. Pringle for his timely warning. He is a close observer and his hints are in time to counteract the difficulty.

For the Canadian Bee Journal.

EXPERIMENT AND EXPERIENCE.

IN a warm climate, and especially in a heated season as the present season has proven to be, it becomes a problem as to the best method of protecting spare combs from the ravages of the moth larvæ. Having reduced the number of my colonies owing to the decade of dry seasons, the past spring found me with about 500 spare combs, standard L. size. These are good straight combs mostly drawn from foundation and are reckoned as a valuable part of the apiary outfit. These combs were kept in supers during the past winter in the best of order, and they gave no trouble till the heated season set in, which began in the early part of July, and then the work of the moth miller began. The combs were brought together and such of them as showed signs of moth depredation were subjected to the fumes of sulphur and the work done thoroughly. The fumes of sulphur will destroy the larvæ of the moth miller before they are entrenched in the combs, but when a few of the larger ones become encased in their webbing it is a slow business to reach them with the fumes of sulphur. And further, the sulphur fumes do no harm to the unhatched eggs, hence the fumigation must be repeated about once a week. My experiments in this line were not satisfactory when speaking of good results. This season's experience has convinced me that the sulphur

remedy is most unsatisfactory. With a small tight room or closet fitted up for the purpose, and with unflagging attention, combs can be saved in this way, but they come out in a filthy condition ready to send up a disgusting sulphurous stench when subjected to a warm temperature. This matter has not been as closely investigated as it should have been. A better remedy is needed, and I have no doubt but it can be found if the genius of bee-keepers is set to work in this direction. I quit the sulphur business early in August and began to tier the combs in supers on the hives, notwithstanding the hives had the usual surplus cases on them. I found that a good colony of Italian bees will protect all the combs that can be handily stacked over their brood nest. For want of room on the hives for so many combs, I made up a lot of nuclei—just one frame of brood with adhering bees, and gave each of them a queen cell to screw up their courage. These little nuclei have taken care of from ten to twenty L. combs each, and kept them in "band-box order," and the young queens they have nursed in the meantime have more than paid the expenses of the food consumed by the nuclei.

To see how a mere handful of Italian bees will keep a comb surface ten times greater than their immediate wants demand nicely cleaned and polished ready for future use, speaks volumes in their favor as a general utility race of bees.

YOUNG QUEENS AT MATING TIME.

It is pretty generally understood that there is a large per cent. of young queens lost at that period of their lives when they venture into the outer world in quest of a mate. But the immediate cause of this mortality at so interesting a period of their lives seems to be poorly understood even among those who are supposed to be the closest of observers. No author of our standard works on bee culture, in the old or new world, has given any feasible cause for the untimely end of so many young queens. Their counsel is to "paint the hives of different colors, keeping the hives at some distance apart, etc." Some writers advise the hanging up of something like a red cloth or a sheet of paper as a sign for the young queen to recognize her home by. All this is a plain case of the "blind leading the blind."

I will not say that no young queen ever entered the wrong hive on her return from her wedding flight, and that no young queen is ever lost from this cause, for nothing I believe is wholly exempt from accident. But I do say, after long and careful observation and experiment, that such a mishap is as rare as anything under the sun. And when speaking in a general way, it never

happens. I have in use a queen nursery, an invention of my own, made like a modern Langstroth hive, except that it is 18 inches wide and is partitioned off into three apartments by means of wire-cloth division walls. The two side departments are strongly stocked with bees and make very strong nuclei. The middle department is used as a nursery or incubator, for hatching queen cells. The strong nuclei on either side furnishes all necessary heat. Well, as a matter of convenience, the entrances to these nucleus apartments are both at the front end of the queen nursery and are practically six inches apart. In very warm weather when both nuclei are crowding outside a portion of their bees, the clusters may actually touch each other. These nuclei thus situated have been employed at queen rearing for the past three or four seasons, and they have nursed from four to eight queens each, during each season, and not a single loss has ever occurred. The explanation is this: These nuclei have received close attention and been kept in *normal* condition, and the legitimate result has been as stated above. *Abnormal* condition of the nursing colony is the true cause of the loss of young queens at that period of their age when they are moved to seek a mate. I discovered this fact four years ago, and have had the matter under observation ever since. Young queens may sometimes be captured by birds, etc., and may possibly under some circumstances enter the wrong hive and perish. But these causes are as a mere "drop in a bucket" when compared to the real cause, viz.: abnormality of the nursing colony. Any one may satisfy himself of the power of these influences by a very simple experiment. Give to a colony of bees, that are in normal condition every way except that they have no queen, a good strong queen cell, and they are about as certain to have a laying queen in due time as anything earthly is certain. But if you will manage so that the young queen is lost about the time she should mate, abnormality will begin to appear and the next trial will be fraught with danger, and after a few failures it becomes next to impossible to get a queen mated under the care of that colony. The condition becomes the same as that of a colony infested with fertile layers except that no eggs appear in the combs. The trouble consists in the accumulation of superannuated bees who are ready to "ball" any young queen that presumes to put on "airs" in their presence. A peculiar feature about the matter is that the young queen, from the time she is hatched out to the time she begins to prepare for her wedding flight, may move about among the bees unnoticed and unmolested, but then her persecution begins

and is most likely to end in her death. Supplying such colonies with brood and young bees, though a commencement in the right direction, will not restore the colony to her usual conditions, because the disturbing cause, the superannuated bees, remain in the hive. My remedy is to supply the nucleus or colony, as the case may be, with a frame of hatching brood and in two or three days after the young queen is hatched out move the hive to a new location. This will draw off the disturbing old bees, and the young queen will run no risk of being persecuted and balled to death when she takes her wedding flight. Since I made the discovery that abnormality of the nursing nuclei, or colonies, as the case may be, was the direct cause of the loss of young queens at mating time, and began to take steps to remove the cause I have lost no young queens worth making mention of, while previous to that time my loss in that way was quite serious—in fact, enough to cut down the profits of queen rearing below a paying basis.

THE PRESENT OUTLOOK.

Previous to the 15th of the present month, August, this part of the U. S. was visited by a three weeks heated spell attended with drought working serious damage to crops and to the young clover plants. But since the date above mentioned it has been remarkably seasonable and we now have promises of honey for winter stores. I am happy to say that a large portion of the young white clover crop is now safe from the effects of drought this season.

G. W. DEMAREE.

Christiansburg, Ky.

For the Canadian Bee Journal.

The Season in Dufferin County.

HAVING read the reports in the C.B.J. of the honey crop in Ontario, which are by no means encouraging, and not noticing any report from this section I thought it might not be out of place to send you a few lines stating how we have got along with our bees this season.

I put into winter quarters in fall 1887 thirteen swarms packed in chaff, of which five died of starvation and two from some cause unknown to me, as they had plenty of sealed stores. This left six to commence the season of 1888 with. I had three swarms from these but all went back again; I divided them and made nine out of the six and took so far 335 lbs. of extracted honey.

I expect to extract yet another 100 lbs. and leave abundant stores for winter. Those of my neighbors keeping bees have done equally as well, and in some cases better.

One man wintered one swarm and has taken therefrom 120 lbs. of extracted honey and two swarms, leaving him with three strong swarms of bees, from which, if the season keeps favorable, he expects to extract more from. Can anyone beat this?

The prospects for fall flow are fairly good, flowers of almost all kinds are plentiful, and we are having an occasional shower which makes things boom.

W. J. SMITH.

Monticello, Ont.

In this case we belong to the "I-told-you-so" class, for we expected a turn of the tide after the unusually long drouth. You have undoubtedly done better than many, but you do not ascribe it to the fall flow. Crops of red clover have yielded well in some places, but from our knowledge of your locality we judge it hard to beat for fall honey. The swamp bush and marsh lands at this season of the year afford excellent foraging ground for the workers. Let all who have reports as encouraging send them in to brighten the hopes of those who, in their despair, talk of giving up.

For the Canadian Bee Journal.

Notes from Valley Apiary, Indiana.

SI have been practising the contraction of the brood nest for new swarms for the production of comb honey this season, very nearly the same as given in Mr. Hutchinson's little book, I will try and give my experience of the same. I commenced with 19 stands of bees, 10 L frames to the hive, most of which were good and strong and with which I expected to do a land office business, unless the flowers failed to furnish the nectar which would change the programme. During apple and raspberry bloom I put on the sections and when the clover came in, which was about swarming time or the first of June, I took the crates of sections off the old and put them on the new hives. These new hives were contracted to five L frames with starters of foundation about half an inch wide with a wood and zinc queen excluder over the frames. I now took 12 of my best queens and put one in each new hive, shook three-quarters of the bees belonging to each queen in with her, took the balance of the queens out of the rest of the old hives and put three-quarters of their bees in with the former drive. This left the old stands queenless, and in two or three days I gave them a ripe queen cell. My idea of practising artificial swarming in this way was to give them

queen cells from my best breeding queens, for I believe our honey crop depends on the queen to quite an extent. This made the new colonies quite strong, equal to about one and a half natural swarm to each hive, and I found that when the five brood frames were nearly built out the bees made preparations to swarm, that is the most of them did. I then took brood combs from the old stands enough to build them up to eight combs, giving the queens more room to lay and they nearly all soon got over the swarming fever, as it is called. As to the amount of honey up to date, we have taken off 638 one pound sections of honey, all white, from clover, bass-wood and button or elbow willow. This is a poor season for honey in this part of the country—much worse than last year. Last season we managed our bees nearly the same way; commenced with seven eight frame hives, increased to sixteen and took over 700 one lb. sections. One word for the wood and zinc honey boards—they have come to stay, I think; anyway at the Valley Apiary.

C. A. BUNCH.

La Paz, Ind., Aug. 23.

IS BEE-KEEPING PROFITABLE?

MY crop of honey raised during the season of 1887, says G. M. Doolittle in *Rural Home*, was most of it sent to commission merchants, as I was not able to find a sale for it at prices which I thought it ought to sell for; hence the present time finds me with the last returns which closes out my crop. After placing the amount of the last sale on my ledger it was but natural that I should look over the debit and credit columns to see what my bees have paid me for my season's labor. After figuring up the whole receipts, and deducting the expense incurred by bees therefrom, I find I have an average profit of \$20.33 for each colony I had in the spring as cash receipts, free of all expense, except my labor. Thus it will be seen if a person can care for 100 colonies of bees (and it is done by many of our practical apiarists) this would give an income of \$2,033 a year. But to be on the safe side suppose we call it 50 colonies, thus giving a salary of \$1,016.50. The season of 1887 was no better than an average one for bees in this locality, which being a fact it would not be unreasonable to say that the above might be an average yearly income from bees for any person engaged in apiculture. As proof that the above is not overdrawn, I will say that I have cleared on an average over \$1000 from my bees each year for the past 14 years, with an average of less than 50 colonies each year. Don't understand me

that I have laid up that much each year, as some are bound to have it, only that I have received that as a salary, if I may so put it.

That bee-keeping will compare favorably with any other pursuit in life, I firmly believe, and the trouble why so many fail in it is that they do not properly attend to it. Men will give their horses and cattle the best of care, but when it comes to the bees, they let them take care of themselves, with the exception of hiving swarms and putting on and taking off boxes. What would they expect from their cows if treated in that way? The keeping of cows means milking twice a day for at least 210 days out of the year, and feeding them three times a day for 180 days, saying nothing about cleaning stables and other work necessary to carry on a dairy. When men are willing to thus care for bees, they will find they give as much profit as can be obtained from cows, or any other branch of rural industry. Bee-keeping means work, energetic work, a place for everything and everything in its place and to know how to do things just at the right time and in the right place, if we would make it profitable. We also want the best bees, the best hives and all modern appliances, just as our enterprising dairymen would have the best breed of cows and the best utensils to care for the milk. Also a man must have a liking for the business.

No man will ever make bee-keeping profitable who prefers to lounge about a country tavern or store instead of working in his apiary. In fact, a person will not succeed in any business unless he has enough love for his calling in life so he will be diligent and faithful thereto. "Seest thou a man diligent in his business? he shall stand before kings," was what king Solomon told his son, and the saying is as true to-day as it ever was. If a person is not willing to spend the time on his bees which they require, he had better keep out of the business, for sooner or later he will turn from it in disgust if it is undertaken with the idea that "bees work for nothing and board themselves."

Farm and Home.

SYRUP FOR WINTER STORES.

THE beekeeper often finds that in removing the surplus honey in the sections above the bees he has left the colony short of stores; or in case of late swarms very often they are found to be short, not having stored sufficient to carry them through the winter. The question arises, How can we prepare these colonies for winter, and do it safely and so cheaply that it will pay the bee-keeper?

I have used sugar syrup more or less for win-

ter stores for the last ten years, and consider it superior to anything except the best quality of white clover honey gathered early and thoroughly ripened. It is fully equal to this when properly made. I would use nothing but granulated sugar. To 10 lbs. add $4\frac{1}{2}$ lbs. of rain water or soft water. Place this in the vessel in which it is to be boiled, and to prevent scorching (which will not answer in the least degree) use a boiler, setting a dish in the bottom. Pour in water enough to two-thirds cover the dish containing the sugar. Now dissolve one teaspoonful of cream tartar in half a cup of water and add this to the syrup with two pounds of extracted honey. Stir it until the acid and honey are thoroughly mixed through the syrup, being sure that the sugar is all dissolved. Bring it to a boil and skim off all that may rise to the top. Remove the boiler of syrup from the fire and when it is cool enough not to burn the bees it is ready to feed. It will not granulate and is far superior for winter stores to the average honey gathered by the bees.

The syrup may be fed in any feeder to suit the fancy of the bee-keeper. To a good sized colony that had no stores when the frost killed the flowers, I would feed 25 lbs; if they had partly enough, as is commonly the case, make an estimate, always letting the estimate be in favor of the bees. Feed enough to make 40 lbs. of sealed stores. I use a small feeder for stimulating. I first cut a hole through the quilt or honeyboard or if it be a box hive, through the top of the hive and place the feeder there. For winter feeding I use a feeder holding 25 lbs. and it covers the whole hive.

To simply remove the honey boxes or quilts and set on the feeder is well; then pour in enough to put them in good condition for winter.

This they will take down in 48 hours or less time.

Should the bee-keeper be so careless as to neglect the feeding until the weather is so cold that the bees will not take the feed down from the feeder the next best thing is as follows: Take the frames from the side of the hive not covered with bees and lay some sticks across a large tin pan and laying the comb on the sticks. Then hold a skimmer 18 inches above the comb and pour the syrup through it, letting it fall in fine streams on the comb. The force of the syrup will drive the air from the cells and fill the cells nicely. When one side is filled, turn the comb and fill the other in the same way. The suction will hold the syrup in, and four or five pounds of it can easily be put into a comb. When filled return it to the hive.

J. B. MASON.

Androscoffin Co., Me.

From an Exchange.

WHAT BEEKEEPERS WANT TO KNOW.

Q F bee-keepers there are two classes, the large and the small producer. The small producer wants to know how to get several hundred pounds of honey from a few old hives, set at various angles in the meads down by the hog pen. If he gets a few pounds of honey he wants to know how to dispose of it as soon as possible and at any price. If he be a well-to-do farmer, he wants to know if it will pay best to raise honey in the above slip-shod manner, to buy of the specialist or to go without. Also to know what a specialist finds so very interesting in a bee paper and how to keep cool in swarming time while enveloped in a coat, wool hat and thick veil with woollen stockings on his hands. He further wants to know what in the dickens that big swarm went to the woods for when himself and wife and children made all the noise possible with tin pans, dinner horns and guns; and if there is any improvement in bee-management since our grandfather's days.

The specialist wants to know in what locality his bees will produce the most honey, if it will pay to sow especially for honey, which is the best time to produce honey with the least manipulation and in the best marketable shape, which will pay best, comb or extracted honey, how to equalize the sale of honey, making a more uniform price, so that it will not sell for 40c. in one market and 10c. in another. He wants to know when fools will stop rushing honey upon the market in July when there is little demand for it, the best method for wintering bees, if honey will ever become a staple article: why people make such an outcry against adulterated honey and not a word about chicory coffee, and adulterated spices, syrups, etc., and when farmers will learn that bees are useful in promoting the yield of fruit and grain.

J. H. MARTIN.

SUNDRY SELECTIONS.

SOUR MONEY.

R. WILSON.—I have 30 colonies of bees all doing well, and bringing in honey very fast just now. I have about 50 lbs. of sour extracted honey which I took out last spring. What can I do with it?

Dickenson, Ont. Aug. 28.

Add a little water to it and melt it over a slow fire. When thoroughly melted skim it and boil until the water is evaporated and the honey sufficiently thick. To avoid any risk of burning it

is advisable to place the vessel containing the honey in hot water.

FAIR REPORT FROM QUEBEC.

A. O. COMIERE, M.D.—The season here will not be favorable for honey, and the harvest will be small. Only two-thirds of my hives have swarmed, and they are only beginning to work in the supers. Last week I saw a young man from St. Hugues, named Paradis, who brought out of his cellar this spring 80 hives; he has got only 27 first swarms and about 3,000 pounds of extracted honey. Last year with 50 hives which he brought out in the spring he had at the same time about 50 swarms and 4,000 lbs. of extracted honey. This year the spring here was too long and too cold—then it rained too often. If this slight report can interest you in any way, I shall be fully repaid.

St. Celestin, Que., August 8, 1888.

W. W. Howard, of Delta,, writes:—"Both queens you sent me were well received by my bees. Am well pleased with the yellow one, but the Carniolan proved to be a drone layer, all brood capped indicating drones. Shall I pinch her head or will she be of any use? Has she been mated and have I to stand the loss?"

Our answer was:—"The queen was mated and laying before she was shipped. We presume she in some way received an injury which caused her to be a drone layer. We will forward another immediately as we do not know where the fault lies.

MRS. G. BURROUGHS.—Our bees did not winter well; we set out 39 hives with apparently plenty of bees, but they dwindled away and eight or nine died. The combs were mouldy with a great many dead bees. I cleaned the hives but it was too late, the bees were in poor health. We were going to take off the bottom boards but I think we will try another plan. Two years ago we bought a hive of Holy Land bees; they were late swarming but I thought they were doing well; I gave them a good deal of comb honey in the fall. When we came to set them out in the spring we had not one, they were all dead, starved to death. I was very sorry to lose them for they cost a good deal, but they were so cross I did not feel quite so bad. I thought they were more like wasps than anything else.

Fallowfield, Aug. 28, 1888.

Sorry you lost your Syrians but frequently they will breed and consume all their stores in winter. See that all your bees have a sufficiency of stores this fall. We feel very sanguine of the coming season and trust that your bees will be in grand condition.

Read the grand array of premiums offered on page 475 of this issue.

THE YIELD AT DRUMBO.

T. PASMORE.—As I was taking off my top boxes a few days back I thought I would give you the result of the season with me. It is the worst I have experienced. I have taken 14 lbs. per colony, spring count and as many full combs of honey as to put my bees in good trim for wintering. I have not allowed them to increase largely and now my hives are boiling over with bees. Are those strong hives any better or as good for wintering? I use both the Jones and the L, eight frames; when removing the top boxes I find in the Jones plenty of honey to winter on, but scarcely any in the L, not enough to keep them a month, and so full of brood that I could not put the cards of honey in without destroying the brood. How and when should I supply this lack, as I think it should be done early in the fall so as to let the bees have time to fix up things in their own way before winter.

Drumbo, Aug. 29.

Our extra strong colonies did not winter as well on one occasion as those of medium strength but we want to go into winter quarters with strong—not too strong—colonies.

Just as soon as the bees cease gathering feed for winter. The remarks on perforated metal under "Our Own Apiary" in this number are applicable to your case.

HOW HE INTRODUCED QUEENS.

F. W. FULFORD.—The three queens I received Aug. 1st are doing splendidly. The evening I went to the P. O. I received three queens out of my box to my surprise, not expecting them. I took them home and went to work dividing a stock—which had not swarmed this season—full of bees brood and honey, drew out two frames covered with bees and plenty of brood within five days of hatching. Placed the frames in a new hive, took a third frame out from the old hive with as many bees as possible, shook them off in the new one; put the third frame back in the old hive where I got it. Filled vacant space up in the old hive with extracted frames, the balance of space in new hive with frames of unsealed comb. I placed the queen in a Peat cage upon one of the unsealed frames, and placed this next the frame of brood and closed them up. The entrance I screened with wire cloth so the bees could not get out and yet have plenty of air; kept them shut up 36 hours, liberated them just half an hour before sun set. All was right and jolly. Next day bees were at work carrying in pollen in loads. I repeated this method in introducing the other two queens, with same satisfaction: they have laid well and have lots of brood ready to hatch.

Brockville, Aug. 21.

Skill in management is the only necessary for the safe introduction of queens. The losses are slight compared with a few years ago.

W. D. DREWRY.—I notice in a JOURNAL of the 8th inst. a report from Campbellford for North-

umberland county, which is rather blue for this part of the country at least. I and a neighbor here had 63 colonies, spring count, increased to 88 with about 300 lbs. light section honey and they are doing well now on buckwheat. As I don't understand all about bees I would like an explanation of the following: A hive swarmed about June 10th, just eight days after the queen cells were cut out and a virgin queen from a nursery introduced. In just 14 days from that the hive swarmed again a number of queens hatching. The two that were saved, one with each hive, proved first class prolific queens.

There must have been a queen laying in the hive as all the old queen's eggs and larvæ would be so far advanced as to prohibit making queens of them. A stray queen may have entered the hive. It is not uncommon to find both a young and old queen laying in one hive, the old one being old and quite feeble receives the smaller amount of attention. If the younger led out a swarm the old queen might remain in the hive, and being the only one the bees would naturally attend her, and she would perhaps become more prolific. We have found two queens in a hive and after removing the younger the old one has increased in fertility. To test the matter more thoroughly we have introduced her to another colony to be satisfied that she was laying all the eggs. Of course each colony would start cells and commence raising queens. A queenless colony on receiving her started cells the same as if eggs and brood had been put in without a queen, showing that they knew she was feeble and failing. Such queens when neglected to be fed soon pass away and are superseded.

Do bees ever store honey on top of eggs, and would the eggs in that case lay without hatching until exposed to the air. If so that might explain this case.

Smithfield.

Do not recollect bees doing this, but have known them to destroy or remove eggs and store honey in the cells. In our opinion eggs covered as you describe would not hatch.

KIND WORDS.

R. WILSON.—I would sooner go without my dinner than miss a copy of the JOURNAL.
Dickenson, August 28, 1888.

Read the grand array of premiums offered on page 475 of this issue.

HONEY MARKET.

DETROIT HONEY MARKET.

Best new white comb, quoted at 15 and 16 cts., with little in market and few sales. The price is too low for the limited supply, and those having any to dispose of will do well to await a better demand. Beeswax now quoted at 21 & 22 cents.

M. H. HUNT.

BUSINESS DEPARTMENT.

Read the grand array of premiums offered on page 475 of this issue.

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.

Read the grand array of premiums offered on page 475 of this issue.

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
" " " American Bee Journal, one yr.	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, 1/2 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

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

USEFUL GOODS.

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 without 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		
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		
1	Pass books 3 "Railroad" 16 p. paper cover.....	45	1 00
1	Pass books, 2 Steamboat 32 p p.		
1	Fenholders 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.		

8 CENT ARTICLES.

1	Butter stamps 3 or 4 inches.....	\$ 75	\$1 75
1	File, 3 corner, 3 or 4 inches....	75	1 75
1	Ink-well, glass, safety, cannot spill.....	65	
1	Mucilage, good sized bottle....	70	
1	Oil cans, zinc.....	65	
6	Pencil, automatic indelible....	75	1 75
1	1 doz. Lead Pencils, No. 852, very good.....		
1	Time books for week or month.	75	

10 CENT GOODS.

2	Bill files, harp shape.....	\$ 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
3	Butter spades 9c. each.....	80	1 90
2	Boxwood pocket 1 foot rule....	98	2 10
1	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, 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, $\frac{1}{2}$ 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	

20 CENT ARTICLES.

Postage.	Per 10 lots.	Per 25 lots.
Bit, best make, $\frac{3}{8}$, 7/16, $\frac{1}{2}$, 9/16..	1 90	4 50
Brass traps.....	1 86	4 50
Brushes, flat, 2nd quality, 1 $\frac{1}{2}$ in. paste or varnish.....	1 80	4 25
Chisel, firmer, inch.....	1 90	
Ebony ruler, bevelled for book-keeper.....	1 90	4 50
File, 8 inch, flat, round or 3 corner.....	1 90	
Glue, 1 lb. light, broken.....	1 75	
3 Lead pencils, 1 doz. 201 good value, rubber tipped.....	1 80	
Paint brush, No. 3.....	1 80	
12 Papeterie, "Jubilees" containing 24 sheets, ivory notes, 24 square envelopes.....	1 80	
6 Pens, gross box "292 school"....	1 80	
1 Pocket memo book, indexed....	1 90	
Screw-driver, steel, 6 inch rd bit	1 90	
Square, iron, grad. to $\frac{1}{2}$ one side	1 90	
Thermometer.....		

25 CENT ARTICLES.

6 Cards, 50, ladies' or gents' visiting. Piries' super ivory...	2 00	4 50
2 Duplicate order books, with black leaf.....	2 00	4 50
File, 10 inch, flat.....	2 25	
3 Lead pencils, 1 doz. Faber's H, H. B., B. or B. B.....	2 30	
Paint brush No 1.....	2 30	
Rule, 2 foot, boxwood.....	2 30	
Tape Lines, "Universal," 3 ft..	2 30	

30 CENT ARTICLES.

3 Bills payable and receivable...	2 85	6 90
Bits, best make, 10/16, $\frac{3}{8}$, $\frac{1}{2}$	2 85	6 90
250 Envelopes, Ladies', square.	2 80	
5 Foolscap, 2 quires, extra quality	2 80	
4 " legal, in pads of 100 sheets.....	2 75	6 00
Inkwell, square, glass, bevelled edges.....	2 75	

35 CENT ARTICLES.

Bit, best make, inch.....	3 40	8 20
Hammer, steel face, for light work.....	3 30	
Square, grad. to 1/16 both sides	3 30	

40 CENT ARTICLES.

Foolscap, 5 quires, good quality	3 75	
Hammer, No. 50, steel head, adze eye.....	3 60	
Pens, gross box, 'Bank of Eng.'	3 80	
" " Blackstone or J.	3 80	
Ruler, 2 foot, boxwood, brass bound.....	3 60	

50 CENT ARTICLES.

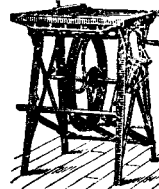
Binders, CANADIAN BEE JOURNAL	4 80	
Blank books—.....		
Day book, 200 p. p. good paper, well bound.....	4 25	
Cash " " " " " " " "	4 25	

Postage.

	Per 10 lots.	Per 25 lots.
Ledger " " " "	4 25	
Minute " " " "	4 25	
Complete set, Cash, Day and Ledger, \$1.25.....		
200 page Day Book, canvas cover good paper, exceptionally low		
Carpenter's brace, pat. grip, 8 in	4 85	12 00
Envelopes, good, business size, 250 in box.....	4 00	
250 Envelopes, Ladies' square, very goods.....	4 50	
Hand saws, 18 and 20 in., best make.....	4 50	
Hammer, No. 51, steel head, adze eye.....	4 50	
Hammer, smaller, frame nail'g	4 50	

SUNDRIES.

Automatic Fountain Pen, the finest thing out; holds enough ink to last a week; always ready; can use any style of pen that suits you, and can change it as often as you wish—a marvel of cheapness—by mail, post paid, each.....



Barnes' Foot Power Machinery—We are agents for these in Canada, and can furnish the Combined Machine delivered in Toronto, freight and duty paid for..... We will gladly forward descriptive Catalogue & price list on application.

Copying press, "The Simplex," the most rapid and the easiest handled. Folds like a book and weighs but 10 lbs. With lock, \$5, without....	\$4 50
Hammer, No. 47, steel head, adze eye a most substantial implement.....	60 55
Hand saw, 26 inch, finest quality.....	65
Hatchet, steel, with hammer and nail puller.....	65
Lawn Mowers—The new Philadelphia pattern, as made by the Gowdy Mfg. Co., Guelph, at prices as follows:—	
10 inch cut.....	5 75
12 " ".....	6 25
14 " ".....	6 50
16 " ".....	7 25

We ship these direct from the factory at above figures.

Letter books, with index, bound in canvas, 500 pages.....	1 10
Letter books, with index, bound in canvass, 1000 pages.....	2 00 75
Plane, iron block.....	80
" wood smoothing.....	1 40
Post cards printed to order, 50 \$1, 100 Square, steel, grad. both sides, usual price, \$1.75.....	1 35
Soldering outfit, consisting of soldering iron, scraper, bar of powdered resin.....	75

D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

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

BEEFON, ONT.

Manufacturers of and Dealers in Apiarian Supplies

OUR CIRCULAR SENT FREE ON APPLICATION.

Publishers Canadian Bee Journal.

Fine Book and Job Printers.

QUEENS.



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

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

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

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

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

EXPLANATIONS.

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

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

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

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

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

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

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.

This fifteenth thousand much enlarged and more richly illustrated than previous editions. It has been fully revised, and contains the very latest in respect to bee-keeping. Price by mail \$1.50. Liberal discount to dealers and for clubs.

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

250 ENVELOPES

—AND—

250 NOTE HEADS

FOR \$1.

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

CANADIAN BEE JOURNAL OFFICE,
BEETON ONT.

Muth's Honey Extractor.

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

CHAS. F. MUTH & SON,
Cor. Freeman & Central Avenues, Cincinnati

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.

COMB FOUNDATION!

At hard pan prices.

WILL. ELLIS,
ST. DAVIDS, ONT.

BEEES FOR SALE CHEAP.

30 COLONIES OF ITALIAN BEEES 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, Com Foundations, Section Honey Boxes, all books and journals; and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plain. 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 bee-hives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. & JOHN BARNES, 544 Ruby St., Rockford, Ill.

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.