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VOL. IV, NO. 21

1888

AUGUST 15

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.

ADVERTISEMENTS

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The Canadian Bee Journal and.....		
Cook's Manual, cloth.....	\$2 25	\$2 00
A B C in Bee Culture, cloth.....	2 25	2 00
Quincy's New Bee-Keeping (cloth)	2 50	2 25
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C. C. Miller.....	1 75	1 60
A Bird's-eye view of Bee-keeping		
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
  4. BEE-KEEPERS' DICTIONARY, containing the proper definition of the special terms used in Bee-Keeping... .25
  5. FOUL BROOD, its cause and cure..... .10
- 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 Fringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers. Price, with name and address, per 1000, 3.25; per 500, \$2.00, per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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

Barnes' Foot Power Machinery I

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.

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts.

ERRORS. — We make them: so does 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 55 cents each, post paid, with name printed on the back in Gold letters.

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

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

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All advertisements will be inserted at the following rates

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	\$10.00
One inch.....	\$4.00	\$6.00	15.00
Two inches.....	5.50	9.25	19.00
Three inches.....	7.00	12.00	25.00
Four inches.....	9.00	15.00	30.00
Six inches.....	12.00	19.00	40.00
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 forbid and charged accordingly.

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THE CANADIAN BEE JOURNAL

AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.40
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keepers' Guide," monthly.....	1.50
"Rays of Light".....	1.25
"The Bee-Tive".....	1.40
"Beekeepers' Review".....	1.25
"Beekeepers' Advance".....	1.50

TO CONTRIBUTORS

Communications on any subject of interest to the Bee-keeping fraternity are always welcome, and are solicited. Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

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

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

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

## 'Practical Hints to Bee-Keepers'

Sent free. Address  
**American Apiculturist,**  
 Wenham, Mass., U.S.



**ITALIAN BEES AND QUEENS.** Two or three Frame Nuclei or Full Colonies at lowest price. Every Queen bred from Imported stock and guaranteed second to none. Address  
**E. HEAL,**  
 LINDEN APIARY,  
 ST. THOMAS, ONT.

**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 liveliest 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.

## FRUIT PRESERVED WITHOUT HEAT!

TIME, LABOR AND MONEY

SAVED BY USING THE

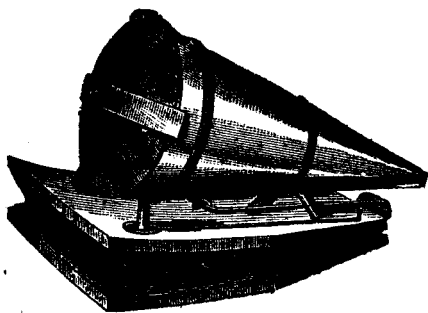
## Perfect Fruit Preservative.

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

**BOOTHE BROS.,**  
 Props., TORONTO.  
 BRETTON.

Or  
**The D. A. JONES CO. Ld.,**  
 BRETTON.

## 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.,** Boston, Ont

## -Comb Foundation-

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

**H. COUSE.**

Cheltenham, Ont., April 5th, 1888.

## "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 65 cents. Stamps taken either U.S. or Canadian. Address

**W. Z. HUTCHINSON,**

618 Wood Street, Flint, Mich.

# 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.....	2 50	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,  
BEETON.

## EXCHANGE AND MART.

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is **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.

**HONEY.**—I want to purchase a few thousand pounds of Comb and Extracted Honey. Send lowest cash price on board cars. EDWARD LUNAN, Buttonville; 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.**—Untested Italians \$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.

## A RARE CHANCE!

The Authorized 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 means of cash. Principals only dealt with.

D. A. JONES,  
BEETON, ONT.

ELLISON'S

## 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.

- T. G. NEWMAN & SON, Chicago, Ill.
  - C. F. MUTH, Cincinnati, O.
  - JAMES HEDDON, Dowagiac, Mich.
  - F. L. DOUGHERTY, Indianapolis, Ind.
  - CHAS. H. GREEN, Berlin, Wis.
  - CHAS. HERTEL, Jr., Freeburg, Ill.
  - E. L. ARMSTRONG, Jerseyville, Ill.
  - 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.
  - IOS. NYSEWANDER, Des Moines, Iowa.
  - G. B. LEWIS & CO., Watertown, Wis.
  - PAUL L VIALON, Bayou Goula, La.
  - B. J. MILLER & CO., Nappanee, Ind.
  - 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. GOOLD & Co., Brantford, Ont.
- and numbers of other dealers. Write for **SAMPLES FREE** and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to samples in every respect. Everyone who buys it is pleased with it.

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

## 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 you 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. 21

BEETON, ONT, AUG. 15, 1888.

WHOLE No. 177

### EDITORIAL.

THE officers of the Union as just reported are as follows:—President, James Heddon; Vice-Presidents, A. I. Root, Prof. A. J. Cook, Dr. C. C. Miller, G. M. Doolittle, G. W. Demaree, Secretary and General Manager, Thomas G. Newman. These are all re-elections, and prove that they retain the confidence of the members of the Union.

Speaking of the bees of Hymettus, Frank Benton says in a letter to a correspondent:—"If I were to send you a Hymettus queen you would not know her nor her bees from Carniolans—except in their *temper*. The Hymettus bees, or bees of Attica, will fly at one when he approaches their hives, with much more vigor than even blacks, and also in greater numbers. Disturb them without smoke, and you will want a brook near at hand to jump into."

From what we can learn the majority of those who have been in the habit of making displays of honey at the Toronto Industrial, will have none to exhibit this year. As a consequence the exhibit is likely to be small, unless some of the more fortunate ones come to the rescue and make good exhibits.

The prospects for a fall flow where fall pasturage is to be found is good, considerable rain having fallen of late.

The last number of the bee journal published by Mr. Ivar S. Young (Norwegian) contains an engraving of Capt. J. E. Hetherington, Cherry Valley, N.Y.

Mr. Ivar S. Young still continues his report of his visit to Canadian and American bee-masters, in the *Tidskrift for Biskjotsel*. The last issue covers his visit to New York, and to Friend Cushman, Pawtucket, just previous to his return to Norway.

#### OUR OWN APIARY.

PRESENT WORK.

THE article which appears in this issue, by Allen Pringle, so well covers the ground of present work that we will substitute it for what we might say ourselves. It is much better said than we could do it.

#### THE SEASON THUS FAR.

##### QUEBEC.

###### ARGENTEUIL.

LACHETE.—I have taken about 40 lbs. of extracted honey. I have had no swarms, and the prospects are not very good for fall; some colonies will hardly get enough to winter on. It has been very dry this summer. There are very few bees about here.

###### BEAUHARNOIS.

BEAUHARNOIS.—Between three new colonies I have taken about 50 lbs. of honey. I cannot

tell exactly how many pounds from each. The prospects for a fall flow are poor at present. One bee-keeper having 42 colonies has had but 56 swarms. Another with 38 colonies has had but 40 swarms. Neither have taken any honey. My 10 colonies have given me 12 swarms. I divided two artificially, making 14 good swarms. I look for a yield from basswood and fall bloom though I fear the season is too dry for either.

#### RICHMOND.

DUNVILLE.—We have had a wet backward summer. I started this spring with four colonies and have increased to eight. There will be very little surplus honey in this district this year. Do not expect much of a fall flow.

For the Canadian Bee Journal.

#### The Membership Premium for 1887.

**D**OUTBLESS those who were members of the Bee-Keepers' Association last year will be surprised that nothing has been done with the appropriation in their favor made at last annual meeting. It will be remembered that the appropriation then made was for the purpose of procuring a copy of "Langstroth on the Honey Bee," provided the sum put at the disposal of the Directors warranted this. The Directors delegated to the writer the duty of negotiating with the publishers, Messrs. Dadant & Son, for some two hundred copies of the work, to be distributed as directed by the Association. The communications which passed between the publishers and myself up till the time they last met were then submitted, since that time I heard nothing of the progress made in getting out the work. I wrote the firm a few days ago asking them when it would be ready for delivery, to which I received the following reply:—"The work is not all in type yet. We send you a few proofs. Will notify you as soon as book is out." The members will thus see that the Directors are not responsible for delay in furnishing them with what they doubtless expected to have got some time ago.

R. MCKNIGHT.

For the Canadian Bee Journal.

#### Introducing Queens—Swarming.

**I** ENCLOSE a short account of the state of our little apiary, and taking you at your own word, will once more trespass upon your own courtesy. You must, I think, have given me a most extraordinarily prolific queen, for the Italians have devoted themselves to swarming and the hive seems as full as at the beginning, indeed fuller. We put on a super but as they

did not work in it we concluded to follow your advice and contract the brood chamber. Found four or five queen cells, and fearing they might not swarm, and not wishing to close the queen, took out on July 16th two frames and put them in a combination hive, a queen cell was on one frame and a good many bees and plenty of brood on both. Two days after the queen was hatched and the colony quite busy. July 23rd the original colony (from you) swarmed naturally and we hived them in our last Combination hive. Two Combination hives had been used for the two black swarms from box hives. July 25th natural swarm No. 2 came and we united it quite easily with natural swarm No. 1, having captured the queen—a beauty, too. July 27th swarm No. 3 came off and we essayed to unite it with the artificial swarm taken off July 16th, and succeeded, but with great loss of life, as, I suppose, you as a bee-keeper will imagine. I captured this queen also and intended to give it to the first swarm, which, I supposed, contained the original Italian queen you sent, which we intended to introduce to a hive of natives. But, alas, both my virgin queens died. I had each in a cage of yours with honey, but after 36 hours confinement both died. Please tell me should they have had bees with them or how do you keep queen bees?

I am very sorry I have lost them for they were beautiful creatures and I feel an ignorant regicide. There are only three linden trees in this neighborhood. Will they grow from suckers and can those be planted any time but spring? I have been much interested in C. B. J. papers on dead brood, as in June we had a colony in box hive had just the symptoms and I did not like to bore you about it. Nothing in our bee books could be found to coincide, unless it might be mothworm, so we decided it must be. It was a strong colony and every morning for a fortnight the alighting board had numbers of full grown larvæ, if the term be allowed, fully formed but white, and many of them alive and crawling about, evidently just hatched. The bees were also flying away with larva. We were afraid other hives were getting it, but I now think it must have been stray larvæ dropped by the bees. The affected colony is hard at work now and seems very strong, making surplus in two boxes. Will you tell me how to fasten the foundation in the frames or sections? We are using white glue but have much trouble in getting them to hang straight. My brother has kept bees for many years in box hives and has been very successful in wintering in his cellar with hives raised slightly from bottom boards. The early part of this season has been

very unfavorable for honey, drought and high winds, but we have had more rain lately and the bees make noise enough just now, so we hope it wont be "great cry and little wool." I should like to say a great many good words for the C. B. J.; it is so nice.

H. F. MOWAT.

St. Andrews, N. B., July 30.

Of course we always try to give our customers queens that will please them, and bees, too, and think we have fully succeeded in our efforts, believing as we do that careful selection and breeding is the only way to produce the best results. Your caging the queens for 36 hours would result in their death in all probability unless you put a few bees with them, but had you placed young bees in the cage to feed the queen you might have kept her a long time.

Unless great care is taken in uniting swarms with a colony, which had already been at work a week or two there is danger of having more or less of the bees destroyed; sometimes even smoking them will not prevent them from killing each other, especially if honey is not coming in. Colonies that have been separated for weeks may be united by removing the combs, and shaking both colonies up together and leaving them without combs until evening or morning, when combs may be given them. This can be done in the way we recommend sometimes to introduce queens into fertile worker colonies. The dead brood you speak of may have been caused by the bees trying to cut out moth webs and remove the larvæ, as their instinct teaches them that the presence of these is a fore-warning of their destruction and they will even sacrifice their brood in order to remove the webs. If you had examined the young bees that were alive no doubt you would have found their wings defective. Very often young bees hatched when moth webs are in the combs will have webs about their wings and legs and be otherwise defective. These are treated as dead larvæ, and carried out by the bees, who seem to know that they are of no use in the hive and that their is removal a matter of economy.

We sent you a price list showing the foundation fastener, which is used for fastening foundation in sections, but if you have only a few sections to put foundation in you can do it by simply

putting the edge of the foundation in the centre of the top of the sections pressing it firmly with a putty knife, or any other device, to the wood. The sections should be very warm and the wax cool that you may put a severe pressure on it to make it adhesive, as described in previous numbers of C. B. J.

From Live Stock Journal.

#### THE WEATHER, AUGUST WORK, ETC.

**S**UCH a drouth as is now affecting central Ontario is altogether unprecedented in the recollection of the oldest inhabitant.

The afflicted district is mostly included between Toronto and Brockville, in some parts of which, including the most of Lennox and Addington, there has been but little rain since winter. As a consequence the face of nature presents a spectacle as unusual as it is discouraging to the agriculturist. The pastures are so dry and parched that stock has to be fed; the hay, which is now about harvested, is not half a crop, while the grain under the scorching sun and dry winds is not half a crop. Potatoes, between the bugs and drouth, are suffering greatly, while even corn, which will stand so much drouth and heat, is languishing. Wells and cisterns are giving out, and the water-wagon is increasing in weight, while the milk-wagon is rapidly decreasing.

Of course the bees, in common with other living things, are suffering. I took some surplus honey in June, but they are now at a standstill, and I am feeding the nuclei to keep them from starving. The honey crop within the area indicated above, will, no doubt, be exceedingly light. And should the drouth continue much longer, thus cutting off buckwheat and other fall honey, the situation will be a serious one to the apiarist, for in that case the colonies will not only be without winter stores but without young bees to go into winter quarters. To have young bees for winter is one essential condition of getting through safely. The continued drouth and consequent dearth of nectar will inevitably check the brooding as it did last year, and this was one of the chief causes of the extensive mortality the past winter and spring. But this difficulty may be met and overcome, not, however, without skill, trouble and expense. And as these are not likely to be brought generally into requisition by the average bee-keeper, it will be quite safe to predict this far in advance another lot of empty hives next May. This may sound rather pessimistic, but no matter, I only wish it to serve as a warning.



## WHAT TO DO.

To point out an evil or unpleasant fact is one thing; to indicate the remedy or point out the means by which the evil may be overcome, or partially overcome, is another. When the two can go together the mentor may save himself from hasty and unreasonable censure.

Under ordinary circumstances during a favorable season, August is not too early to begin to prepare for winter. Under such exceptional circumstances as this season presents, it is imperative that such preparation begin this month. If there is no honey coming in from the fields to keep up the brooding, it may be kept up by proper feeding. In the absence of honey, syrup from number one granulated sugar will answer every purpose. One quart of water to two and a half quarts of sugar brought to a boil will be about right. You can gauge the proportion of each by a trial or two, as the syrup, when cold, ought not to be quite as dense as ordinary cured extracted honey in the liquid state. For stimulating purposes a little of this, say half a pint, ought to be fed to each colony daily—in the evening—to prevent robbing. If the hives are "fast bottoms" and tight, the feed may be poured over the frames at the back part of the hive, where it will run to the bottom. By tipping the hive up a little at the front, the feed will settle in the back part of the hive on the bottom-board, whence the bees will soon carry it up where required. In the case of "loose-bottoms," and in the absence of "bee-feeders," the feed may be given at the top in the second storeys in shallow vessels, with floating sticks to prevent drowning. To feed bees in the "old box hives," when full of comb, so that the vessel can not be placed in below the comb on the bottom-board, they must be fed from the top. In almost all box-hives there is a hole or holes through the top of the hives to place a "cup" over, and this may be utilized for feeding. Open the hole or holes and place the feed in under the "cap" as above directed.

This regular feeding (which in apicultural parlance is called "artificial stimulation") will have the effect of keeping up the brooding during a honey dearth, provided, of course, there is a reasonable amount of food ahead in the hive. If there is not, give them 10 or 12 lbs. of the feed at once at the start to store away, and then keep up the small rations regularly.

The brooding ought to be kept up in the fall till the middle of September at least. Then with a stock of young bees to go into winter quarters, with abundance of stores, the risks of wintering will be greatly reduced. Amount of

winter stores per colony, quality, etc., will be dealt with in next issue, which will be in full time.

In favorable localities where there is a full flow of honey from buckwheat and other sources, the feeding is of course unnecessary. But under such circumstances the extractor is generally used a little too freely and too late in the season. And this is one of the causes of winter losses. Extracting from the brood-chamber (which ought to be discouraged) is still largely practised, and those who do practise it ought not to let their selfishness over-ride discretion in fall-extracting. A safe rule is always to leave 30 to 40 lbs. of honey in the brood chamber after the first of August. Extracting too closely in the fall with the intention of making up any shortage by feeding is unsafe and unwise.

ALLEN PRINGLE.

From the Eastern Farmer.

## COMB HONEY.

AS the time is at hand for obtaining comb honey, a word about the methods to be employed may not be amiss.

No doubt shallow frames without comb tend to drive the bees in the sections; but at the same time the queen must be suppressed in her duty, namely, to keep the colony supplied with brood; for where there are ample vacant cells the queen is sure to increase even beyond one's expectations. I believe that I first gave the origin of my own plan in the *Lewiston Journal*, a number of years ago, which is in full harmony with the instinct of the bees.

As the queen will only use comb seven-eighths of an inch thick, it must be shaved down to that depth. Now where there is much honey in the comb, it is to be extracted. But the comb must be left, as it generally is, say  $\frac{3}{8}$  of an inch or so apart. They are to be closed up to at least  $\frac{3}{8}$  of an inch, and by using strips of wood  $\frac{3}{8} \times \frac{3}{8}$ , with a large-headed tack driven in the edge  $\frac{1}{2}$  of an inch from the top (the strip is half the length of the end-bar of the frame); these are now hung on the tin rest, and the frames crowded against them, one at each end of the frame next to the side of the hive, and so on. At last they are hung between the division-board and the last frame, and all crowded up close. Thus the frames are all spaced alike, and we can move the hives, and yet all is secure. Thus close, the bees cannot bulge much of the comb, and the queen is sure to use the natural thickness, which she has plenty of, and the bees are glad to enter the sections.

I am sure, too, that we need less comb in this

way, and yet we are sure of more brood. I get nine frames into a hive only  $11\frac{3}{4}$  inches wide; with even this number the bees will work in the sections far better than in the old way, when crowded down on five or six combs spaced away apart by bulged and thick comb. Such is sure to cause swarming, as instinct plainly teaches the bees that they must soon be unknown if no brood-one is provided; and how often we have found but little brood where there should have been an abundance, and yet the cause never occurred to us. This shaving and narrow spacing also prevents storing of pollen in the sections to a great extent, simply for the reason that there is plenty of room right among the brood, where it should be. When one has a large number of colonies, there is a great saving in the comb, which is quite an item.

Of course for winter the combs are spread and a stay like the above only  $\frac{1}{4}$  of an inch would please any one when he comes to move the hives into and out of the cellar, as they are simple and cheap, and remain nicely in place. Try it.

After trying about every method, I have proved the above method to be *the one*—also that it pays to use full sheets of foundation in sections, and to cover the boxes up warmly, and then rest assured if there is honey in the field, it will be carried into the sections.

From Gleanings.

### Pollen and Pollen Grains.

PROF. COOK TELLS US SOME WONDERFUL THINGS ABOUT THEM.

**P**OLLEN is the male element of plants, and corresponds to the sperm cells of animals. When we remember that no plant-ovule can possibly develop without the fructifying influence of these pollen grains, we understand how necessary they are in the vegetable economy.

Pollen grains are very small; often appearing, when shaken from the plant, like a cloud of dust. Their color is exceedingly varied. Some are almost black, others nearly white, though for the most part they are either orange or yellow. Their form is also extraordinarily diverse. Some are spherical, others cucumber shaped; still others crescent form, and yet others remind us of a dumb-bell. We have in our college library a book at least three times as large as the A B C, devoted entirely to pollen grains. In this volume are many pages used exclusively to illustrate the varied forms and markings of different kinds of pollen grains. So characteristic are the forms of pollen grains that we can often tell what plants

our bees have been visiting, by simply dissecting their stomachs. The sculpture, or external markings of pollen grains, are quite as varied as their general forms. Some are smooth, others rough; some are ridged, others grooved; some are pitted, while others bristle with sharp points. Often these projections vary in the same pollen grains.

The pollen grains are developed in the anthers or ends of the stamens of the flowers. In order to fructify the ovules, these grains must lodge on the soft stigma, or end of the pistil. But frequently the stamens and pistils are in different plants. In other cases, where stamen and pistils are in the same blossom "Nature shows her abhorrence of close fertilization" by causing the stamens and pistils of a flower to mature at different times. Hence the great necessity of bees and other insects for the performance of this important work in vegetable economy. They must carry the pollen to the stigma. Where any such union is so important, and yet in the nature of things accidental, Nature is always very lavish. Thus the female fish simply drops her eggs, or roe, in the water. The milt from the male passes into the same medium. Here the union must be accidental, and depends on favoring currents; hence the eggs and sperm cells of fish are numbered by millions. For a like reason the pollen grains of plants are exceedingly abundant, and far out number the seeds. Thus in the Chinese wistaria, a beautiful climbing bee-plant, illustrated in my Manual, there are, says Goodale, seven thousand grains of pollen to about thirty ovules. Hassall estimates that the number of grains in a single plant of rhododendron is seventy-two million six hundred and twenty thousand.

Each pollen grain is a single cell, having two coats—an outer, extine, and an inner, intine, for its wall. It is the extine which is beset with projections, in rough pollen grains. The extine is also frequently perforated. In this case the intine lines these holes, or openings.

As previously shown in an article *Gleanings*, the contents of each pollen grain is protoplasmic matter. This is rich in albuminous material. Indeed, the chemical composition of pollen is not greatly unlike that of some of our grains, as oats, barley, etc.

When the pollen grain lodges upon the stigma, if the latter be in a right condition, as shown by its adhesive secretion, the pollen grain increases somewhat in size, and soon a tube, sometimes more than one, pushes out through a perforation of the extine. The tube passes through the whole length of the style till it reaches the ovule

which is to be fertilized. The time required for the descent of the pollen-tube varies from a few hours to two or three days.

Agricultural College, Mich.

A. J. Cook.

From the Farmers' Advocate.

### CLIPPING QUEEN'S WINGS.

**S**OME bee-keepers, who appear unable to place themselves in the position of a farmer, or in fact anyone who has but little practical experience with bees, and yet keep a few hives for pleasure and profit, will often advocate the clipping of queen's wings. Now let us look at the question in detail. The object of clipping a queen's wings is briefly to prevent her leaving the hive with a swarm. The queen, by an experienced hand, may be caught at the entrance and caged. The old hive may be removed and the new one put on the old stand, and the queen placed in a cage and put upon the combs or foundation in the new hives. The swarm finding they have lost their queen will return to their old home, or rather the place where their old home was, and which is now occupied by the new hive, and they joyfully enter and remain with the queen. All this is well, and the ease with which the swarm has been hived pleasing, but we are supposing that all will be rightly done. But how is it with the novice? How many find it difficult to detect a queen even in the hive when all is quiet, and how many will point to a drone even and say, "There she is." Let the reader answer for himself. Enough to say there are many who will not be able to detect the queen as she issues with the swarm, and not being able to fly she will hop or run out from the hive and be lost from the swarm, and often the swarm returns having lost its queen. Again, as one must watch the bees all the time, the presence of the bee-keeper is required when the swarm issues, or he may again lose his queen. In this way valuable queens may be lost, and the swarm returning to the hive has to wait till the young queens may emerge from the cell, when a dozen young queens may go out with the swarm, and the bee-keeper has after all to hive his swarm with the queen; for her wings will not have been clipped. The colony has lost the use of a laying queen from the time that a swarm emerges until the young queen has become fertilized and is laying. This latter may or may not prove a disadvantage, depending upon the time the bees swarm and the duration of the honey season. If the queen is lost four or five weeks before the honey season closes it is a loss, as the worker

bee hatches in 21 days and becomes of use one or two weeks after she hatches.

Of course there is an advantage in clipping, it may be argued, and the advantage is that should a swarm issue and not be seen, the queen may be lost but the swarm will return. So it will; but what then when the young queens hatch the swarm may leave with them, and you may all the time be lulled into false security and think the clipped queen is still in the hive.

Clipping queens' wings is all right if you are an experienced hand and can watch your bees and look for the queen the moment a swarm commences to issue. Under these circumstances clip by all means, and now how shall you clip? The bees are very keen at detecting a foreign scent, and especially dislike it if on a queen, therefore you should avoid touching her person any more than necessary. Therefore, after having found her take her by one wing and clip it half off if you can. If you cannot, to advantage, cut this wing cut the other half off. Some will, without thinking, imagine the wings clipped on both sides would be better, but such is not the case. If the bees show an inclination to pile on the queen to sting her to death, smoke them and shake all bees off a comb and let the queen run on it; by the time the bees reach her she will be calm and normal in her movements, and all danger will be passed.

It will also be remembered that a queen is impregnated when on the wing, and only once in her lifetime. Cases have been known where a novice has clipped a virgin's wings to keep a colony from leaving the hive. This means the destruction of the colony, for the queen cannot take wing to be impregnated, and she being unable to produce anything but drones, the colony must perish; therefore, be sure your queen has been fertilized before you clip her wings.

From the New England Homestead.

### THE APIARY.

GOLDEN ROD AND ASTER HONEY.

**I**N many parts of the country, the roadsides and waste places are covered in the fall with Golden Rod and Wild Asters. Of Golden

Rod there are many species and of the latter, often called Frost Weed, several sizes and colors, and most of these yield honey. Coming so late in the season, when there is little room to store it and bees are quieting down for winter, the honey is not usually obtained as surplus.

To secure a large crop of fall honey, Italian bees or the yellow races are the most suitable as they work later in the season and with more

energy than black bees. To rouse them from the winter quiet—a state they are then approaching—part or all of the brood combs are removed and sheets of foundation put in their places. The desire for a winter's supply of honey and the work on the foundation stimulates the bees' energies to the utmost, and as fast as combs are drawn out and filled they may be extracted and returned and again extracted as often as filled. By removing what is gathered often, the bees are kept at work as long as the flow continues. In this way one hundred pounds per colony have been obtained where but few hives are kept. As this draws out the vitality of a colony and calls forth energy that would have been available in the spring, it may be wise to strengthen such colonies before wintering, unless they have an abundance of young bees.

Rev. J. W. Shearer of Tennessee once commented in the spring with one colony, increased to five and extracted five hundred pounds of Aster honey, besides leaving a full supply in each hive for winter.

In this location, this honey, as a rule, is not obtained except in brood combs, and as it is excellent for winter stores, is allowed to remain. My Cook apiary is where there is much run-out land grown up to weeds and brush. Here Golden Rod and Asters are very plenty. Being on a hill where it is rather bleak, a board fence was built on all sides; with this protection they venture out many times, when if the hives were exposed to the strong wind they would remain inside. It is also high and dry and frosts hold off until late. Here bees have never failed to get enough late honey for winter stores.

At the beginning of the flow last fall the colonies were almost without stores but very populous. All brood combs not containing brood were removed, leaving from four to six combs two-thirds full of brood, nearly all of which was capped. The vacant space in the brood chambers was filled with dummies and surplus boxes containing drawn-out combs placed above, the hive covered with chaff cushions and the entrance made rather small. After a hard frost I examined them and found that nearly all had from 12 to 20 pounds of honey in section boxes, two-thirds of which were nicely sealed, the remainder uncapped and but partly filled. The brood combs were solid with honey, with the exception of a space for bees to cluster in the centre combs. The honey from the Golden Rod coming first, most of it was stored below in the room made by the fast hatching brood. The flow from Asters came after, and

as the space below was mostly filled, much of this was stored above.

The honey in some boxes nearest to the center of the cluster was two-thirds Golden Rod with Aster honey about the edges, and was thick, well filled and finished; that farther away was clear Aster honey, nicely finished and very clear and handsome; that farthest from the cluster was poorly filled, unsealed and thin. The wax cappings at this time are quite yellow from the pollen in the wax. Had I given less room in the brood nest and frequent attention, I should have secured less honey below and more in boxes, but the colonies would have needed more stores for winter.

The result shows that the obstacles in the way of producing this honey in the comb may be overcome. It also shows what is possible in a better season or in a still better locality. Although less in amount will be taken in boxes than in the extracted form, it will be worth more money.

C. E. Watts, of Rumney, N. H., in 1886 increased from one colony to six and obtained over one hundred pounds of honey, mostly comb, all but about twenty-five pounds of which was gathered after Golden Rod blossomed. Others in Virginia, Maine and the West have done as well.

If but one or two brood frames or foundations are allowed below and a few sections of drawn-out comb above, and as fast as finished are removed and replaced by others, a large number may be secured. There is little danger of the queen laying in sections at this season. The proper amount of space below and above to get the best work and all the pollen below instead of above in boxes, will be learned by experience. At this season boxes of drawn-out combs should always be used instead of foundation.

A late-reared queen will have considerable brood late in the season at a time when there is usually little or no e. This is a great help to force the honey above, and if the bees of another Italian colony are united to these, success will depend only upon the weather and the secretion of nectar. Aster honey is a pale amber very bright and clear, and in flavor is delicious. That from Golden Rod is thick, darker and stronger in flavor. When extracted it is generally obtained mixed. Both have a rank, weedy odor when first gathered. When the summer flow has yielded no surplus, I believe it will pay to secure this late crop in comb, even if all colonies have to be given sugar stores for winter. The latter should be stored and sealed in warm weather and be ready to give when the other is removed. Instead of following this plan extensively, it may be best, in your locality, to try it the first season with but one or two colonies.

SAMUEL CUSHMAN.

Pawtucket, Providence county, R. I.

From the Bee-Keepers' Record.

### THE SEASON IN SCOTLAND.

**W**E are now at the close of the third week in July, and have not yet taken a single pound of honey. Our bees gathered fairly well from raspberry blossom and thus bred up to stocks, but the terrible weather of the first fortnight of July made it inadvisable to extract any. We have practically no clover this season for miles around, a result due partly to the scorching summer of last year on this dry soil, and partly to the absence of snow in winter. We have had very few swarms, but have now got splendid stocks ready for anything but starvation. We removed four to the glens on the 14th and were glad to find plenty of newly-bloomed clover there, and to see our stocks increase in weight a good few pounds before evening. The only stock supered with sections was the one that first came to full strength, and this was one of our two *buried* stocks. They had no brood at all when taken from their winter repository, but they have built up in a remarkable manner. Bad as things have been they had two crates of sections partly sealed when we removed them to the glen. One of these we gave to another strong stock, replacing it with an empty set to allow more ventilation while travelling.

We have heard of very few localities where any finished honey has yet been taken, but as clover is pretty rich in many districts and very late besides, and as the weather is now all that could be wished, we anticipate that we shall have some more cheering reports before another month.

Everything promises fair for a good heather season which will be more fully taken advantage of than ever before, owing to the failure of the early harvest—the heather does not seem to be late as it got an early start in spring, and the late rains insure, with fine weather following, that there will be a full bloom. The heather bloom is on the new growth only, and this is quite flourishing.

Those who purpose removing the heather should see that all bars are firmly secured either by being fitted with W. B. C. Ends and weighted down by crates of sections securely fastened above, or by being wedged together with half-inch square blocks hung between the frames by nail heads to the rabbits—wide shouldered frames if tightly jammed and weighted as above travel all right. The top should be open except for a piece of thin scrim, and the doorway full length fastened with wire cloth. One of the stocks we carried over fifteen miles on hilly

roads last week had an upper storey on with only one crate of sections in it. The scrim was fastened over the upper storey, leaving half its capacity empty below. Strange to say, though we had a strong stock below we never saw a bee come above the super into this space all the way, and we verily believe that it is possible to convey bees in their regular hives for long journeys even without a covering or wire-cloth door at all. The gentle jolting of the van seems to lull them to rest provided the ventilation be free. We have often carried stocks many miles with a few of their belated inmates sitting quietly on the floorboard outside the door.

Persistent bad weather should, however, arouse inquiry as to the amount of stores, and combs of syrup may have to be given to prevent starvation. And yet we have only fed one stock, a swarm hived on foundation.

W. R.

### HOLY LAND.

**D**URING our detention at Jaffa, occasioned by a violent storm which prevented our embarkation on the day appointed for the commencement of our voyage by the Syrian coast to this city, we were enabled to make exploration into various matters connected with this key to the Holy Land; and I hope the incredulity of your readers will not be called out when I tell you that there are in the famous groves of Jaffa 500 gardens and the enormous aggregate of 800,000 orange and lemon trees from which there were last year exported to Europe 20,000 boxes of oranges of the peculiar, oblong, lemon shape now so well known in England, besides an enormous number of smaller, round oranges not adapted for distant exportation, but extensively consumed nearer home. Out of this enormous exportation and extensive consumption, showing the vast extent of these groves, there has arisen another special industry in the collection of orange-blossom honey from 500 bee-hives, under the control and management of five brothers, very sensible men who came from Germany. On our arrival at Jaffa the air was perfectly laden with the perfume of orange-blossoms, on which was being displayed the activity of, I suppose, some millions of little active workers, who were

"Gathering honey all the day  
From every opening flower."

The bee-farm is located on the margin of the groves and Plain of Sharon, but in addition to this extensive farm of orange-blossom cultivators, these spirited five brothers have established other farms on the hills of Judea, where wild thyme gives another opportunity of gathering honey of a somewhat different character from that of Jaffa; the wild-thyme honey is brown, while the orange-blossom honey is white. Of all honeys I ever tasted, whether that of the heather

of Scotland, the white or brown honey of Switzerland, or the far-famed Hymettian of Athens, I never tasted any so delicious as that of the orange-blossom honey of Jaffa, of which last year 30,000 lbs. weight was collected. This year, as with many crops of agricultural and other produce, there is a falling off in the supply, owing to the long, dry season of the district. Nevertheless, I was so impressed with the value of this article, and its new feature of industry, that I purchased 100 lbs. for distribution amongst my home friends and the connoisseurs in honey, and especially with the view to the opening of a new feature of commercial enterprise which the bee-farmers earnestly desired.

In addition to this interesting information relating to the orange groves, I learned from the same informant (to whom I have referred) that special colonies are now being planted in the plains of Sharon, and all round this old city of Jaffa. Four of these colonies have been established by the eminent bankers, the Rothschilds, who have bought lands and have built houses upon them, one of which colonies has been especially provided for, and is occupied by, poor Jews driven out of Russia. In other cases German settlers are located, and one colony in particular, at Sarona, on the Plain of Sharon, is appropriated to the keeping of cows for the supply of fresh and pure milk and butter to the inhabitants of Jaffa, thus realizing the old interesting ideal of a "land of milk and honey."

Extracted from a letter in the *Glasgow "Herald"* signed THOMAS COOK.

From the American Bee Journal.

### Eating Honey.

EDUCATING THE PEOPLE TO THE USE OF EXTRACTED HONEY.

FOUR years ago last June I began the keeping of bees, and since that time myself and family have not known what it is to be without honey in the house, and on the table—eating it almost three times daily during that period. We always ate and preferred it separated from the comb, and whatever I produced in the comb was sold to those who preferred it in that shape. I always considered them, however, more nice and particular in selection than sound and experienced in judgment, as to that which was best; for if comb honey is good, extracted honey is certainly better, and it requires but a brief trial in the case of the unprejudiced, to demonstrate the fact.

Let those who have been "wedded to their idols," so strongly as to eat nothing but comb honey, and who have been swallowing large quantities of the unpalatable and indigestible

stuff called "wax"—which, by the way, is only a receptacle for the pure nectar which is secreted in the flowers—discard it for a time and resort to the use of the pure, clear and clean article, known to the bee fraternity as extracted honey; and after using it three months, if they do not admit that their digestive organs have not improved, and they feel better, and it was the honey they were after, after all, I shall have missed my guess, and still be inclined to doubt their judgment as to that which is good. Let them try it and report.

It has been said before, and said so often that it scarcely needs repeating, that the leading objection to extracted honey, by those uneducated in the mysteries of the art of bee-keeping, is the fear and suspicion of adulteration.

"Tis pity; pity tis;  
And pity 'tis, 'tis true."

Now if the consumers of the country (ignorant through no fault of theirs) were educated to the fact that there is no such thing as adulteration at the present time; that glucose, sugar and other saccharine substances formerly used to adulterate honey, cost almost as much as the pure nectar itself, and that those unscrupulous enough to do the mixing, could not make it a success from a dollar-and-cent stand-point (which is about the only thing that would induce them to engage in it), they would soon begin to think differently, and this blight—or curse—which was hung like a black-winged messenger of despair over an innocent fraternity for so long a period, would be at once dispelled, and its stead a new era be inaugurated in which that much-maligned, but never-to-be-praised article, *extracted honey*, would occupy its proper niche among the products of the hive.

The difference in the price of comb and extracted honey at the present time is too great, and it is due to no other cause than the suspicion of adulteration. Here in Kansas City comb honey is retailing for 25 cents per pound, while they retail just as good an article of extracted for 12½ cents. To come down to the real merit of the two—and it is by merit that we arrive at value—the extracted honey is worth the most, pound for pound; and when you buy a pound of extracted honey you get 16 ounces; but it is different when you buy a section of comb honey (it is sold by sections here). The retail dealer would always rather have a 24-pound crate that weighed only 22 pounds, than one of full weight, because in that case he makes two pounds of honey to the crate clear, besides his profit; so that when you buy a pound of comb honey you get about one ounce of wood, one ounce of comb and full one ounce short weight, leaving you only 13 ounces of honey.

Now why should 13 ounces of honey, because it is encased in comb and wood, bring as much in the market as 32 ounces of the pure nectar, thrown from the comb? Surely there is something wrong. And I cannot help thinking that most, if not all of the trouble, is due to the name—"extracted honey." The name is so closely allied with extracts, essences and various artificial compounds, that it is scarcely to be wondered at—though much to be deplored—that nearly nine-tenths of the people outside of the bee-keeping fraternity themselves, look with a suspicious eye upon the transparent nectar display-

ed for sale in large quantities, and labeled "extracted honey."

After an experience of about five years in producing and selling honey I cannot help entertaining the belief that the word "extracted," as used in connection with honey, has worked an injury to the honey trade that it will take long years to repair, and created a doubt in the minds of the majority of consumers, that will require much time and patience on the part of the honey vender to explain away.

I can well remember when a boy, that jars of clear "strained" honey were looked upon with an eye of pride, and their contents prized as a toothsome article in many a farm-house. More value was attached to it than to that much comb honey.

I have not written this article for the purpose of calling out any discussion upon the subject, but simply from a humanitarian stand-point. Should it set some genius to thinking, who might be able to hit upon a plan by which my favorite article of diet could be lifted from the mystery and doubt which at present surrounds it, I shall feel highly recompensed.

W. J. CULLINAN.

Kansas City, Mo.

From The Michigan Farmer.

### GIVE US A CHANGE.

PROF. H. M. Wiley, apparently grown profoundly weary of the charges rung upon the "wilful lie" and "Wiley lie" by the *American Bee Journal* and their iteration by other apicultural journals, has written to several of them a plain, frank, gentlemanly letter, explaining how he came to make the statement relative to the adulteration of honey which has got him into such extremely hot water—a statement made upon the authority of an eminent chemist since deceased, and in part at least corroborated by chemical analyses both in this country and Europe. The bee papers have published this letter, which is certainly as much of an *amende honorable* as any man could well make, with comments which are hardly, in our humble judgment, at all called for. The *American Bee Journal* admits that honey has been adulterated, but alleges it is not done now, simply because the price is so low it does not pay. Prof. Wiley's article in the *Popular Science Monthly*, which stirred up such a bees' nest, was written in 1881. Both charge adulteration, but differ in how it is done. It makes little difference to the consumer how he gets his glucose, if get it he must.

Samples of honey from a well-known bee-keeper were reported after analysis as "apparently adulterated." Further samples were asked for and indignantly refused. Both rogues and honest men can work the "indignation dodge;" it would have been better to have forwarded other samples and stood the test. Yet the *Journal*

says "the component parts of honey vary so much that few, if any, can positively determine, even by analysis, the purity thereof." If this be true—and the *Journal* would never fall into those "Wiley ways" it has so often denounced—adulterated and unadulterated seem to stand on equal chance, and it is a clear case of "great cry and little wool." The *Journal* says honey has been adulterated, and that adulteration is difficult to detect; Prof. Wiley says honey has been adulterated, and chemistry has detected. Either way the public is heartily tired of the unprofitable controversy—which on one side at least, reminds us of the minister's best sermon, which he always preached when he did not want to write a fresh one—and begs, with due humility, for a change.

We do not publish the above because we think it is at all appropriate, but more to show what outsiders think of the matter. The editor of the *Michigan Farmer* seems to forget that it took nearly eight years to get the *amende honorable* it now talks of.

## SUNDRY SELECTIONS.

### A GOOD REPORT FROM NEW HAMPSHIRE.

FRANK WILKINS.—Bees came through the winter in very bad shape, but all swarms that were strong enough for the white clover have made lots of honey and swarmed once each.

Pelham, N. H., Aug. 8, 1888.

THOMAS SMITH.—My bees have not done much this year; only one stock has made about 20 lbs. of comb honey, and that stock I did not allow to swarm. I increased quantity two-thirds by artificial swarming.

Durham, August, 1888.

### GATHERING HONEY FROM FIELD BEANS.

HENRY PARKER.—This has again been a poor honey season. White clover was no better than last year, almost a failure. Basswood was also a failure here this season; the trees seemed to be diseased; the leaves were covered all over with little knots or warts; a great many of the flowers were blasted. There is, at this date, quite a lot of honey coming from field beans and white clover. Field beans are a good thing, as the honey comes directly after basswood. The drought has affected the crops here very little, and things look fair or a fall crop of honey.

Aug. 6, 1888.

### TOO MUCH RAIN.

JOE BLAIS.—As you welcome reports from your subscribers, I beg to say that mine is only half satisfactory, compared with last year. I lost 40 per cent. in wintering, mostly from those out doors; started in the spring with 33 colonies.

our stocks. Increased to 55. I expect about 1000 pounds extracted and 300 pounds of comb honey will be my yield. Had the weather not been so wet the past two weeks of July this vicinity could have given a good report; the bees did extraordinarily well the first two weeks of clover bloom, giving us rosy prospects for the season, but it has almost the opposite look now, and here we are with our little average 40 lbs, yet fair colonies kept without increase, have given 100 pounds of extracted honey.

St. Foy, Quebec, Aug. 8.

Yours is the first report we have had of too much rain; as you will observe by looking over the reports.

#### MAPLE SYRUP AS FOOD FOR BEES.

J. D. MORRISON.—I have much pleasure in saying that I have found your JOURNAL a very valuable and most interesting book in regard to bee-keeping, it gives the best methods and information that is desired by all. I commenced in the spring of 1887 with one colony and this spring I put out six. All came out strong but one. They have increased to 16 and I extracted 120 pounds of honey. I work for increase this summer. They swarmed and would not stay in the new box and then we swarmed them into the old box and they went stir out, but have worked with the others for six days. I do not know whether they will stay or swarm; will you kindly inform me? I would like to know if maple syrup is good for winter feeding. You will greatly oblige by answering in the next number.

Maple syrup would, we think, be too strong food, were there not other reasons why a syrup of the best granulated sugar and water were preferable. The latter comes much less expensive to the bee-keeper, and we know what results may be obtained, while in the former case we do not. It would not be a bad idea, however, to try it on one or two colonies and report results.

#### HIVING SWARMS WHEN THE QUEEN'S WINGS ARE CLIPPED.

Mrs. JAMES HAMILTON.—I want to tell you about the bees I got from you on 28th of last May. A fine swarm came off, one on the 22nd of June, and in three weeks they had the brood chamber full of brood and stores. On the 10th of July a swarm came from the other. The queen was clipped, and we did not know how to manage these so well, and a good many bees went back to the old hive. The swarm was small, but they have all the foundation drawn out, and nearly full of brood and stores. I have supers on the other three hives, but they do not put any honey in them. There seem to be great numbers of bees in the hives and they are working well. There is plenty of basswood, raspberry and Canada thistle. Now, what are they doing with the honey? All I have taken from them is two frames of sealed honey. How do you think they are doing? Will the queens

that I got from you do for next year? When hiving a swarm with a clipped queen should the old hive be moved to another stand and the new swarm put on the old stand? Are they likely to swarm again this year?

Ravenshoe, August 8, 1888.

The queens will do for another year, and we are pleased to note that your bees are giving you such satisfaction. We think, considering the unfavorable season, that you have reason to congratulate yourself, because you have certainly done better than many old bee-keepers. You say, "Where are they putting the honey?" If you have got three combs of sealed honey and four swarms from one, and all in good condition, you have done very well, in this the worst of all seasons within the recollection of man in Canada. Where they are storing their honey is just what we would like to know, or where nature is keeping it? In fact there has not been enough honey in the flowers until within the last two weeks to enable the bees to store any surplus, but they are doing splendidly now, and we will not be surprised if we have a good show of fall honey. Be sure that your new swarms are left enough honey to winter on, and if sufficient be not gathered you will need to feed them.

#### KIND WORDS.

CHAS. PENTON.—I beg to acknowledge the receipt of the colony of bees by express, which arrived in fine shape. They are the dearest little creatures I ever saw or handled. I have been out several times a day since I got them and scooped up a handful every time to examine. To one who has had years of experience and practise with black bees and hybrids, a bee that has some respect for you is appreciated. As I make only comb honey and detest gloves and masks there may be hope yet. If Italians such as these will make section honey nice enough for my city trade I will have to Italianize my yards next fall.

East Aurora, N. Y., Aug. 8.

## THE CANADIAN BEE JOURNAL.

### BUSINESS DEPARTMENT.

Send 5c. for samples of our handsome lithographed honey labels. In printed labels we have over one hundred designs.





# 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 with-out handles.....	\$ 75	\$1 00
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 1/2, bevelled.....	45	1 05
1		
Ruler, for school children, three for 5c.....	40	90
2		
Scribbling books, 200 pages....	40	
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.....	75	
1		
Time books for week or month.	75	

## 10 CENT GOODS.

Bill fyles, harp-shape.....	\$ 90	2 10
2		
Book of 30 blank receipts with stub.....	85	2 00
2		
Book of 50 blank notes.....	85	2 00
2		
Brush, flat, for paint, paste or varnish.....	80	1 90
3		
Butter spades 9c. each.....	90	1 90
2		
Boxwood pocket 1 foot rule....	90	2 10
Chisel, firmer 1/2 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 1/2 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, 1/2 and 3/4 in.....	1 45	
12		
Dextrine, 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, 1/8, 1/4, 3/8.....	1 65	4 00
Glue, LePage's liquid, with brush	1 65	
Oilers, automatic.....	1 60	

**20 CENT ARTICLES.**

Postage.	Per 10 lots.	Per 25 lots.
Bit, best make, 3/7, 1/6, 1/2, 9/16..	1 90	4 50
Brass traps.....	1 85	4 50
Brushes, flat, 2nd quality, 1 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.....		
12 Papeterie, "Jubilee" 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 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.....		
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, 1/2, 3/4.....	2 85	6 90
250 Envelopes, Ladies', square.		
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, 1/2 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	

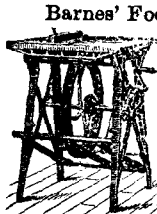
**50 CENT ARTICLES.**

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.....		
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	

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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.....



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We ship these direct from the factory at above figures.

Letter books, with index, bound in canvas, 500 pages.....  
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 " wood smoothing.....  
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The annexed table shows the prices at different seasons, of different varieties. These are, of course, subject to change depending upon the supply and demand. All changes will be noted in the CANADIAN BEE JOURNAL :

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

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

#### EXPLANATIONS.

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

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

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

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

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

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

### BEES.

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

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

MONTH.	Italian	Italian Crosses	Carniolan Crosses
May	\$8.00	\$ 8.00	\$ 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.

### BEES BY THE POUND.

Just as soon as we can raise them in the spring, we will have for sale, bees by the pound at the following prices :—Up to July 1st, \$2.25 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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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.

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