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VOL. IV, NO. 4

1888

APRIL 18

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$

WEEKLY

IN THE WORLD

ONE DOLLAR PER YEAR

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- BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.
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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.

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"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.25

## 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.

# TABLE OF CONTENTS.

Apiary, Our own .....	65
On ripening honey .....	65
Hints as to present work .....	66
April work and other matters .....	71
Time to set bees out .....	72
Association wanted at Ottawa .....	74
Bee house .....	74
Bees, Mexican .....	72
Bees, Lifeless, revived by heat .....	78
Bees fly for stores, how far do .....	69
Circulars Received .....	75
Criticisms on the Bee Journal .....	69
Comb Honey in Northern Latitudes .....	74
Do not be afraid of being stung .....	67
Editorial .....	65
Good Showing .....	73
Heather Seed .....	67
Hibernation theory settled .....	70
Queens, Artificially mating .....	68
Introducing .....	68
Re-queening colonies .....	74

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We offer for sale 200 lbs. of Minion, good face, suitable for Mailing Lists. The whole lot, including an extra supply of quads, caps and figures, we will sell at 18 cents per lb. Can deliver at once.

**THE WORLD.** Beeton, Ont.

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One year for only \$1. These seeds are just such seeds as everyone having a garden wants and buys, paying 5c. to 10c. per package, the retail price of the seeds is \$1.75. We give away our paper and sell you the seeds at about half price to introduce both to Canadians. Seeds will be sent post paid and we guarantee satisfaction. Address,

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	April,	May.
1 Untested Queen.....	\$ 1 15	\$1 00
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1 Tested Queen.....	2 50	2 00
3 " Queens.....	6 00	4 50

Many of the above will be reared in the height of the swarming season and all will be nearly, if not quite as good as the best swarming queens. In every case safe arrival and satisfaction guaranteed.

W. J. ELLISON.  
Stateburg, Sumter Co., S.C. Carolina.

## THE BEE-KEEPERS'

# REVIEW.

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

## THE PRODUCTION OF COMB HONEY.

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

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is the best journal of its kind

## INTERESTING & INSTRUCTING.

ITS PAGES ARE GRANDLY ILLUSTRATED

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

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TORONTO.

# BEES AND HONEY.

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

**M. RICHARDSON & SON,**  
Port Colborne, Ont

## 100 COLONIES OF BEES FOR SALE OR EXCHANGE.

For Bee Supplies or anything that I can use. Beeswax wanted. Dealer in all kinds of Bee Supplies.

**JAMES ARMSTRONG,**  
CHEAPSIDE, ONT.

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I will sell about 50 colonies of bees at the following rates:

24 and under.....\$7 50  
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They are in Jones' S.W. and Combination hives. FOR DELIVERY IN MAY at Beeton or Alliston R.R. station.

**SAMUEL BRAY,** Beeton, P.O.

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with pure Italian queen, containing 3 pounds of bees when secured—in April and May, \$4.00; after, \$5 cts. less. Safe arrival and satisfaction guaranteed on all queens and nuclei.

Early Bees from the south shipped to Canada without loss.

For more particulars, send for Tenth Annal Catalogue.

# P. L. VIALLO.

BAYOU GOULA, IBERVILLE PARISH, LA.

## PRACTICAL BEE-KEEPER.

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

**The D. A. JOHNS Co., Ltd.**  
BEETON, ONT

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## EXCHANGE AND MART.

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is **specially** intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

**50 HIVES** of bees for sale. Price \$5 per hive. Any person taking the lot. Apply to G. L. PEARSON, Clarksburg, Ont.

**WANTED.**—Young man who has had some experience in apiary. Willing to make himself generally useful. For particulars address WILL ELLIS, St. Davids, Ont.

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

**\$1.00** Will secure you by mail, post paid, 250 Noteheads and 250 Envelopes with your name, business and address printed on the corner of each. Send in your order now. THE D. A. JONES CO., Beeton, Ont.

**TWO** Pelham and one Vandervoort fdn. mills for sale or will exchange for beeswax. They are new, latest pattern, and everything complete. Will sell very reasonably and can ship at once. **Speak quickly.** F. W. JONES, Bedford P.Q.

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Shelburne, P.O., Ont.

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THE

## BEE-KEEPERS' ADVANCE

—AND—

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OLIVER FORSTER, Mt. Vernon, Iowa.  
GEORGE E. HILTON, Fremont, Mich.  
J. M. CLARK & CO., 1409 15th St., Denver, Col.  
and numbers of other dealers. Write for SAMPLES FREE and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to sample in every respect. Everyone who buys it is pleased with it.

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

# THE CANADIAN BEE JOURNAL

WEEKLY.

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

VOL. IV. No. 4 BEETON, ONT., APRIL 18, 1888. WHOLE No. 160

## EDITORIAL.

IN all criticisms on the New Reversible Honey Board and Super Reverser, will our friends please remember that the portable or open sided super forms no part. We claim as our invention simply the two pieces named above. The side-opened super may be dispensed with, and the arrangement work to just as good advantage.

Will all subscribers who were bitten by Thos. Horn, though seeing the advt. in the CANADIAN BEE JOURNAL, please write us now, saying the amount of their claim, so that we can make it right, as we promised to. Remember, we cannot do more than furnish bees and queens (not supplies) in place of those not received. Where Horn mailed or shipped queens or bees which arrived at their destination, either dead or alive, we cannot hold ourselves responsible.

### OUR OWN APIARY.

Something Further on Ripening Honey.

IF we only watch carefully every circumstance connected with the management of honey and apiculture from day to day we are sure to find little things cropping up to teach some lesson of importance. At our home we

have had a coal stove burning for over two months without interruption, keeping the temperature high, consequently very dry. Near this stove is a pantry with only a lath and plastered wall between. In the pantry was a large fruit dish containing several pounds of very fine, well ripened honey. The dish had been sitting on the shelf next the wall for about a week, and when it was brought out the spoon was resting on the top, which was tough and had a glassy appearance. When pressed with the spoon it seemed like a paper covering. We scratched a hole in it to ascertain the depth and found it to be between one-quarter and one-half an inch. When placed on paper it looked like soft wax, and one would hardly believe that honey, by a hot dry atmosphere would evaporate its moisture and become so thick. We thought this a good opportunity to test the difference in quality and flavor; taking some of the honey from a sixty-pound tin and comparing it in texture, color and flavor with this better ripened, it did not seem like the same. The contents of the tin was specially selected and we considered it as good as could be produced, but tests go to prove that the honey in the dish was so much superior that anyone comparing them would not hesitate to give two or three cents a lb. more for it. We do not know how much loss there would be in evaporating honey to that extent, but suppose the loss to be from ten to twenty per cent. We believe this class of honey would find a

market at a price sufficient to warrant the experiment. It would be necessary to place it on very shallow vessels, and subject it to a very low temperature that the color might not be changed. We fancy a room properly arranged with coils of steam pipes to raise the temperature to a desirable height, at the same time allow a current of air to pass through would soon reduce our ordinary honey to the consistency of jelly, it could then be placed in tumblers, or any kind of vessel, in fact paper bags could be manufactured of a size and shape suitable to hold it, and sold in 5c., 10c., 15c. and 20c. packages. It might even be sold by the pennyworth, which would increase its consumption. It may surprise some of our Canadian and American readers to know that there is a firm in England that manufactures 50,000 little tin boxes daily which are filled with milk and sold at a penny each, a pennyworth of milk being a very common quantity to purchase there. Why not sell honey in small quantities that it would eventually take the place of candy? Shall we stand with our arms folded and not take a lesson from others. We recollect while attending a convention a few years ago at Syracuse seeing some evaporated honey exhibited by our esteemed friend L. C. Root. It was far superior in texture and richness of flavor to ordinary honey. Mr. R. spoke of the great advantages of such honey and tried to urge upon us the necessity of putting it on the market. Friends consider this matter and let us hear from as many of you as can give us any light upon the subject.

#### HINTS AS TO PRESENT WORK.

Our own bees are still in winter quarters, and we shall not be in any great hurry to disturb them. The temperature stands pretty regularly at  $0^{\circ}$  and we think that so long as it continues we had better leave them just where they are. There are more bees lost and more colonies spring-dwindle because of being set on their summer stands before steady spring weather has set in, than from all other causes combined.

When the bees are set out be careful to see that the entrances of all hives are properly closed toward night, and on all cold, windy days. It is very necessary

to keep up the proper temperature in the hive. If the colony ever requires an equal temperature, it is just after they are set out in the spring and while brooding is going on rapidly.

Do not examine your bees to death. On the first suitable day contract the brood-nests of all those which cannot fully fill their hives, and then let them get very strong before enlarging. Rather underdo than overdo this latter, and your bees will be in the better shape when you want them.

If you find any of your colonies so weak that they cannot nurse the brood hunt up the next weakest one, and "double-up." This is the most economical course to pursue. Do not try to coax them along of themselves. After awhile the "doubled" colony can be divided, and you will thus have two stronger colonies than if you try to carry both through the spring. Strength begets heat and courage.

If you find that the cotton quilt over the brood-nest is not sufficient to retain the heat in the hive, and you have no cushions of any kind, place several thicknesses of newspaper over the ordinary quilt and put on the hive-cover.

Should any of your colonies be short of stores be sure to supply the lack of food, either by giving them sealed stores in the heart of the cluster, or by cakes of sugar candy over the frames, unless the weather be warm enough to feed syrup and there is not much likelihood that it will be. Under all circumstances be sure to see that no heat escapes from the hive.

One of the first things to decide in the spring is whether you intend to work for comb or extracted honey. Upon your decision will the management of your colonies depend to some extent. In the next number, we will give instructions as to the mode of procedure in both cases.

If you have not already prepared all your hives, supers, sections, &c., do not lose any more time about it. Set to work and get everything in order. Do not leave your supply dealer in the dark as to your probable wants. He may not have what you need just when you need it and "delays are dangerous." When the bees begin to swarm they do not wait for hives and supers, nor does the

honey flow accomodate itself to the storage you may have. Therefore "be always ready."

### DO NOT BE AFRAID OF BEING STUNG.

So sure as you go about in a nervous, half-frightened, twitchy manner, just so sure will you be stung by the first bee that you run against. If you have *less dread* of being stung, you stand a much better chance of escaping without such than if you tremble at the approach of a bee. *The Record* gives some very useful hints in the direction of "courage" in the bee-yard. They are written in the concise way of Mr. Carr, and he goes on to say that you must be careful not to bang the bees about (as some bee-keepers are unfortunately prone to do) nor handle them roughly when manipulating. Protect yourself securely with a bee-veil; if possible wear no gloves, and proceed leisurely with your work, avoiding killing or crushing the bees. If by chance you get stung on the hands, don't start! or drop the frame you are handling; quickly remove the sting by scratching it out (do not try to pull it out, because you are only pressing the poison sac and injecting a greater quantity of the poisonous fluid into the wound) and try to *forget* it but go on with your work. It isn't easy to forget it did you say? Well, perhaps not, but you'll soon get used to the pain and you can then do so the easier. So much depends upon the temperament and manner of the operator that some persons can handle bees with ease, while others irritate them beyond measure, by their sharp, jerky method of manipulating. Just try to become sting-proof so far as your hands go, but always have your veil so fixed that you have behind it a feeling of security, no matter if a hundred angry bees are buzzing around your face. This security gives confidence, and confidence is just what you most need. Don't mind a chance sting on your hands, then the probabilities are you'll be but seldom stung. If you are always expecting a "prod" you'll most surely get it. A banker in our town used to say to his customers when they came in with stories of their great *expectations*, but without sufficient cash to meet their

requirements: Blessed are they that expect nothing, for verily they shall not be disappointed." So it is with the "sting" business. If you don't expect it you are not nearly so likely to get it.

### HEATHER SEED.

OUR readers will remember the discussion and remarks in some late numbers of the BEE JOURNAL, with reference to heather. Mr. Raitt at that time wrote that he had never seen the seed for sale, nor had he any idea where it could be obtained. Our mind was filled with despair at that time, when we learned that there was no chance of obtaining any of the seed for experimental purposes, but the following letter "sets us right up" again, and we are at last going to try what can be done:—

Rannoch Lodge,

Rannoch, Perthshire, Scotland, March 26th,  
1888.

Having seen a notice in our *Bee-keepers Record* that you were very anxious to procure heather seed to sow in Canada for the production of heather honey, and seeing that I was in one of the best localities in Scotland for heather, I thought I would try and procure some for you, so I accordingly got some workmen and set to work. I soon found it was no easy task to gather it, but on the contrary a very tiresome and tedious job. However, I persevered, and managed to get a few ounces of the seed which is very small and which kept us several days gathering before we could get a single ounce put together. One ounce of seed ought to sow a large patch of ground, if properly sown, I have no doubt that heather will grow equally as well in America as in great Britain, for it can be proven that heather will both grow and bloom splendidly in loamy soil, where no manure has been recently applied, although many people think that it will not grow except in peaty soil. This is a mistake, and I think it is well worth a trial in America. Should any of your friends think of trying it, I can let them have the seed, dressed, and ready to sow, with full cultural directions at twenty-one shillings per ounce. You may be inclined to say that this is a very high price for an ounce of seed, but when you consider the time and labor required in gathering such a number of small seeds I think you will find the price reasonable in the long run. If you will kindly let your bee-friends know



where they can procure the seed I shall be greatly obliged.

GEORGE CLARKE.

In a small envelope, enclosed with the above came a quantity of the seed and we think perhaps Mr. Clark is not exaggerating the amount of work connected with the gathering of the seed. It is very small, and an ounce would go over a large portion of ground. Anyone wishing to experiment with heather now has the opportunity of doing so.

#### MATING QUEENS ARTIFICIALLY.

**H**ANS Ersler, editor of the *Danish Bee Journal* writes to the last number of the *British Bee Journal*, on the above subject, a rather interesting account as tried by P. O. Berg, Torrniq, a Dane who has during the past two seasons been experimenting in this direction. The editor goes on and says:—

"I shall relate these to you as they may, perhaps, lead to some very important discoveries on this head. Mr. Berg's experiments were made at the same time as Prof. McLain's in North America, but without his knowing the latter, and the former are in several respects better arranged.

Mr. Berg has not caught his drones among the multitude of drones in a strong stock (as did McLain,) but at the entrance of the hive, at the moment when the drone intended to take a wedding flight. This accounts for McLain's complaint that most of his drones were not fit for the purpose, while with Berg every one of his was suitable for fecundation. He seizes the maiden queen by her wings with the thumb and fore-finger of the left hand. In this situation the queen will bend her abdomen downward toward the thorax. Then he seizes with the right hand thumb and fore-finger the drone on both sides of the thorax, and cautiously pressing the abdomen, the desired effect is produced, and fecundation may be accomplished. Mr. Berg tells us that the queen when released will disengage herself in some fifteen minutes. He has in this way artificially fecundated six queens in the season of 1886, and four in the last season, and in all ten cases with an excellent result."

If you want anything in the line of notions, such as we have given in our list at the end of JOURNAL, we shall be glad to supply you. The prices, in most instances, are away below the usual retail figures.

For the Canadian Bee Journal.

#### Introducing Queens.

**T**HE SAFE introduction of queens is always a question of importance, and too much light cannot be given on the subject. "A Hallamshire Bee-Keeper," in an article on page 26, April, 1888, C. B. J., touches on this matter, and mentions my name. Now, I have no fault to find with this, but it gives me a text on which to dilate somewhat. For many years this matter has been one on which I have experimented largely, and a few years ago I gave the results of my experiments to the public, and in the columns of the *B. B. J.* as well as our American journals.

My method as then given has never resulted in failure in my own experiments; that it may in the future I cannot deny, as all methods may fail. By giving my method in brief I shall be able to show the exact difference between mine and that of your correspondent, and will simply say in preface that no time is lost in using it. On the afternoon of a day when the bees cast freely, I remove the old queen, taking care at the same time to see that no queen cells whatever have been started; on the evening of the same day, after the bees have all returned to the hive, I allow the new queen to run in at the entrance of the hive, taking no further precautions in her introduction. I then allow the hive to remain unexamined for four or five days, except carefully examining the entrance to assure myself that the new queen has not been killed and carried out. As yet I have never met with failure, and so far as I can learn no failures have resulted with those who have tried the plan by following exactly the method I have briefly outlined. As will be seen, no time is lost in the introduction, which is of considerable importance during the honey-gathering season, or the preparatory season therefor, while by every other method as yet made public at least 48 hours are lost.

I do not claim perfection for the method, still I do think it as safe as any other, and where brood production is a matter of consequence, the saving of two days' time is quite an item. If the two methods are fully tested, it can easily be learned which is the better or preferable.

J. E. POND.

North Attleboro, Mass., April 10, 1888.

The section trade seems to be growing apace. Up to this date we have had orders for nearly double our last year's trade to the same period. We never had as fine a lot of beautiful white basswood in stock as at the present time, and our best trained hands are kept on the section machines.

For the Canadian Bee Journal

### How Far Bees Fly For Stores.

**Y**OUR STATEMENT received, and with pleasure I renew my subscription. I could not afford to do without the CANADIAN BEE JOURNAL. Bees have wintered well in this section; mine are in the Hilton chaff hives, on the summer stands, and have wintered without loss. I think this hive the best of all for out-door wintering. I do not doubt but what bees can fly five miles, but do not believe they will work as well that distance as within one or two miles; neither do I think they can give us sixty pounds surplus per colony, with no blossoms nearer than six miles, as reported by L. B. Smith in *Gleanings*, March 15, page 206.

The average time occupied by bees in flying to and from the hive is five minutes each mile, two minutes are spent in the hive, and an average of fifteen in the field. Thus, in going five miles, they require sixty-seven minutes for each trip.

These statements are not guess-work, but are facts gleaned from actual observations during five years' study of the habits of the honey bee.

R. E. ASHCROFT.

Fremont, Mich., April 9th, 1888.

No one will deny that it is a great waste of time and energy on the part of the bee if it has to travel five or six miles for nectar; and if the apiary be so far distant, with no quantity of flowers nearer, why, in the best interests of your bees and your own pocket, carry the bees nearer. This is our advice. A very good piece of advice is found in the March number of the *Bee-Keepers' Advance*, which we give below:

"Every bee-keeper who has not already ascertained the possibilities of his own locality should at once proceed to do so; that is, he should learn the whole flora of the section where he resides. By the application in a practical way of such knowledge, he will be enabled to take advantage of every source from which honey and pollen can be gathered. When it is known that every flower that blooms, whether a garden flower or a common weed, is utilized by the bees, the necessity of such knowledge becomes apparent; knowing the flowers and their time of bloom, a full source of workers can be got ready to take advantage of the honey yield and the breeding of useless consumers prevented when no nectar is secreted. He only can achieve the greatest success in bee-keeping, as in any other pursuit, who applies himself diligently to

the business, not only by manual labor, but with the full power of his mental organization."

FOR THE CANADIAN BEE JOURNAL.

### Criticisms on the Bee Journal.

**I** HAVE NOTICED in your journal, during the past, a few things that I do not approve, and though your journal in general is all I would desire it to be, yet there is now and then a little chaff, as it were, mixed with the plump kernels of wheat that need winnowing out, and the grain will look the better for it. In the first place I would mention the profinence given to James Heddon's patents. I find a patent sectional reversible hive with reversible and interchangeable crates, calculated to revolutionize comb honey production. This is first proclaimed in a book written by the inventor to push his wares. Next I open the *A. B. J* and find a column advertisement lauding the same. So far all is legitimate. But on looking further I find what I do not consider legitimate business, as between a bee journal and its subscribers—a whole column advertisement by the Editor, who has taken an interest in patent, in some way. Next there appears a long article by that visionary bee-keeper (W. F. Clark) eulogizing the claims of the invention—apparently to order. And lo! The *C. B. J.* comes to hand in same style throughout. This to me smacks of worthless patent medicine advertisements which dupe the public, enrich the enterprising projectors, though so worthless that in a few years it is scarcely heard of. I bought one such hive two years ago, and find but few of its claims well founded, and it will appear in my apiary for years to remind me of the project of ye editors to push it on me, as well as hundreds. Recommendation by certain parties does not change matters, as patent medicines demonstrate. Happily the pollen theory, that never developed beyond the theoretical stage, seems to be taking a rest. But now we are afflicted with the hibernation theory, and its author (W. F. Clark) is trying hard to disown his offspring and saddle its paternity on Professor Cook. If my memory serves me right, I read some years ago in a Kansas bee paper (I think it was) just after the author had been delivered of his weakling, how he had dreamed that he would some day make an important discovery in connection with bee-keeping, and pointing with the pride of a young mother to her first born, to this crippled and deformed progeny, and soon as Prof. Cook gave it its death-blow, he turned on the Professor and claimed only the relation of taster-father, and that the true father was the Professor, and yet in your last issue Mr. Clark is still unwilling to

own its demise, but manufactures stages of hibernation to bolster up his claims. My horse hibernates on one of those stages, or I would like Mr. Clark to set the limit where stages of hibernation cease to exist.

ABEL GRESH.

Weedville, Pa., April 4th, 1888.

This is not intended as a continuation of the hibernation controversy, and therefore need call for no replies. If we have given more space to some matters in the past than was their due, we will try and do better in the future. We do not object in the least to being "hauled over the coals." It does us good.

For the Canadian Bee Journal.

### The Hibernation Theory Settled by Mr. Holderness.

IT SEEMS to me, at this time, that some wise man who has always been considered an authority has said: "Too many cooks spoil the pie." Now, it seems to me that too many would-be authorities, dabbling in this hibernation theory, have spoiled the whole business; for I am sure if it had been left entirely in the Rev. Mr. Clarke's hands he would have settled it long ago to his own satisfaction at least—for I don't think any one but himself cares anything about it. But, seeing the matter remains a matter of doubt to many worthy people, I have concluded to drag myself away from my business long enough to settle the matter definitely and to the satisfaction of everybody, so that after this writing all who have taken an interest in the matter may employ their valuable time in discussing something else. Hibernation may be understood as meaning a state of repose for a period of longer or shorter duration according to surrounding circumstances. In the case of honey bees, we know that this state of repose is not as profound as it is with bears, woodchucks and chipmunks, to say nothing of ants and other insects which remain perfectly still during the hardest freeze that our coldest winters can produce. They do not lay anything up for winter consumption, but wait patiently until the appointed time, and they come forth to resume their active life. A colder snap than usual may make the bear shiver in his den for anything we know, but it does not induce him to exercise himself in order to keep his blood in circulation, nor does he have any store of provisions laid up upon which to gorge himself, and thus run the risk of losing his life by a fatal dose of dysentery. How-

ever, this is the bear's definition of hibernation. Now let us take a look at the bees, which we know keep up a constant movement from the outside of the cluster to the inside, where the temperature is higher. If the temperature in the hive is exactly right, the movement is so quiet as to be hardly noticeable; but let the temperature run up too high or sink too low, and then there is a fuss. In any case they wake up periodically to supply the demands of the inner bee, and this is where the difficulty in wintering successfully seems to come in, for if the food is not exactly right dysentery sets in, and the unfortunate bees become physically defunct, to the great disgust of the enthusiastic bee-keeper. Nevertheless this is the bee's definition of hibernation.

Let us continue this style of reasoning to its legitimate conclusion and see where it will land us. We have seen that the bear and the woodchuck and other living things sink into a state of repose so profound that they do not seek food until the long northern winter is past, but the bee wakes up at short intervals to partake of food, which seems to be necessary to its continued existence, no matter what the weather may be. Now let us get at man's definition of hibernation. Like the busy bee, if the temperature is exactly right, he goes to bed at half-past twelve, that is, if he is not addicted to late hours, and from then until breakfast time his repose is so profound that the baby might cry itself to death for all he, the mighty lord of creation, would know about it. But let the temperature sink away below zero, and then like the bee again there is a fuss, for he generally wants to know why in thunder Mrs. So-and-so didn't put more bedclothes on. On the other hand, if the temperature should raise in the night, he would like to know if she had borrowed all the spare bedclothes in the neighborhood for the vile purpose of sweating him to death. Anyway he gets through the night somehow if he is tough enough, like the bee with the winter, and rouses himself in time enough to fill up the inner man with the choicest things on the table, after which, like as not, he sinks into another state of repose, though not so profound. It will be seen by the careful reader that hibernation or periodical intervals of repose belongs to all living things upon the face of the whole earth, so that my client, W. F. C., is perfectly right when he says that bees hibernate in the winter. And now, having settled this vexatious question in an entirely satisfactory manner, and in order to save time and trouble, I cheerfully accede to all prominent bee-keepers the privilege of copying this document; and if there are any

who not promptly acquiesce in the decision, I simply say that I have entered the lists as Mr. W. F. Clarke's champion, he being totally unfit to hold his own on this question; and that I am prepared to do battle in his behalf against all and sundry who may feel disposed to take up arms against him. There lies my glove!

J. HOLDERNESS,

Let us suppose this whole matter is settled, for just now at any rate. We need the space in the JOURNAL for other more *seasonable* articles.

Allen Pringle in L. S. Journal.

#### APRIL WORK AND OTHER MATTERS.

THE bees are still in winter quarters, or ought to be, in this climate. They are wintered for the most part in Canada in cellars and on the summer stands, more or less protected. A few are buried and a few stowed away in lofts, granaries, etc. A quarter of a century ago when bee-culture was still in its primitive stages in this country, and when the "old box hive," as it is now called, was the standard hive in use, the bees were mostly wintered outside on their summer stands without any extra protection. And they used to winter in that rough way very well, often coming through the rigors of the severest Canadian winter in good condition. The question, how this is to be accounted for is often asked, and the question is a pertinent one in view of the fact that we have at present such difficulty in getting our bees successfully through the winter and spring with all of our increased knowledge and improved hives and appliances. I think the seeming anomaly may be explained on the following grounds: In the first place the bees of those days in the old-fashioned hives almost always had first-class food for winter, and abundance of it, as there was no extracting done then, and the honey gathered in the early summer and thoroughly ripened and capped-over remained in the hive for winter food—the surplus taken from them being mostly from caps on top after the hive had been well filled. A further cause of the successful wintering of their bees by our forefathers with their limited apiarian knowledge may be found in the fact that only the strongest colonies were allowed to face the music of winter—the weaker ones being all "taken up" in the fall, *i. e.* "brimstoned," and that means digging a hole, putting sulphur in it, lighting it, setting the hive over it, and smothering the industrious little creatures to death, and then taking possession of their stores. A still further cause would no doubt be the peculiar construction and arrangement of the combs by

the bees, which, in many cases, instead of running parallel to each other as we now force them to do by means of our movable frames, converged from the inner walls of the hive towards the centre, thus materially favoring compact clustering and facility in reaching the food in the cold weather. A final factor in the problem would, I think, be the natural protection afforded them by the forests, which have now mostly disappeared, leaving the bees which are outside without artificial protection, exposed to the piercing winds of winter.

If these are the true causes of the phenomenal success of old time wintering under what is thought such adverse conditions, the apiarist of to-day may learn a lesson from each and every one of them. First, let him put a little check on the extractor, and leave the bees plenty of honey, and of the best quality for winter. Double up all weak colonies, and try to carry none but strong ones through. Meet the requisites of compact clustering and convenient food by spreading the frames a half inch or so in the fall and giving freedom and space to the bees above the frames in winter. When wintered outside, protect them by means of sawdust or chaff packing or otherwise. Under such advantageous circumstances as surround the modern apiarist, he certainly ought to be able to carry his bees through the winter and spring more successfully than his grandfather did.

The most important part of the work among the bees for April consists in looking after the stores to see that they have plenty of food, attending to the colonies that show signs of bee-diarrhoea, and setting out of winter quarters. As brooding has now commenced, there will be an increased consumption of food, and those short of stores should be amply supplied. If there is honey on hand saved over in frames (as there ought to be) supply those in need with these. If not, make a somewhat stiff candy of extracted honey and number one granulated sugar, and place in cakes over the frames under the quilts where the bees can reach it. The candy may be made by warming the honey and mixing the sugar, leaving it for several hours in a warm place till the honey and sugar get thoroughly incorporated. It must of course be of such consistency that it will not melt in the degree of heat under the quilt and about the bees—say 60° to 80° Fah. Colonies showing signs of disease and restless, ought now to be carried out to the summer stands for cleansing flight. This ought to be done on a fine, warm, calm day, and they must be carried back to the cellar at night, provided the time has not come for leaving them out. This brings us to the question of

## TIME TO SET BEES OUT.

When bees ought to be put out of winter quarters on to their summer stands must depend upon the season and some other conditions. As a rule it is not well to put them out until the weather becomes warm and somewhat settled and natural pollen appears. This time will vary according to season and locality, all the way from about the middle of May. The bee-keeper must use his own judgment in the matter, as no invariable rule can with safety be given. But there are certain principles which apply under all circumstances and conditions, in spring management, one of which is, that food in plenty is required for brooding; and another equally important is, that a certain degree of heat is always required. Both are imperatively essential. We can supply both, and therein will largely depend our success in getting our bees through the spring in good condition for the harvest. More bees are lost in spring than winter. "Spring dwindling" is the dreaded Nemesis of the modern bee-keeper. But equipped with the modern knowledge of his art, he can meet and vanquish this enemy. What is spring dwindling? Most of us know by experience, more or less dear, what it is. It is the gradual, often rapid, dying off of the old bees in the spring faster than the young bees are brought forth to take their place. The obvious remedies are, first, to prolong the lives of the old bees in the spring; and, secondly, to hasten the raising of young bees sufficiently to meet and fill the loss of the old ones. The question now is, how is this to be done? Conserve the life of the old bees by keeping them quiet; that is, so far as out-door exercise is concerned. Let their energies be spent inside the hive rearing brood. When an old bee begins to forage in the fields in the spring it will very soon shuffle off its mortal coil. Simply do away with the necessity of this. Prevent it from spending itself in that way. How? By supplying it with plenty of food within the hive, so that it need not go out for it, and by supplying it with sufficient heat for brood-rearing. But some bees, like some bipeds, like to be fussing about whether there is any need for it or not. This can be remedied in case of the bees by leaving them in their winter quarters till they get well on with the brooding.

Upon referring to my apiarian record, I find that in the spring of 1885 I commenced setting my bees out of cellar April 16th, and finished May 13th; while the fall record shows that the latest out did as well as those out first or later. The spring was backward, and those having plenty of stores for brooding, and remaining quiet, I left in till late, with quite satisfactory

results. In 1886, I commenced setting out April 13th and finished May 2nd—the first natural pollen appearing in the fields April 19th. In 1887, I commenced April 10th and finished same time as previous year, May 2nd—the first pollen appearing on that date.

The reader will see from the above records that I am not in favor of rushing bees out in the spring the first warm day that comes. Some that are restless, or from other causes, will require to be put out before others. I commence with those requiring the change most, and keep on in that way till all are out. Every one must use his own eyes and judge for himself in this matter as in others.

For the Canadian Bee Journal.

## Mexican Bees.

I HAVE just come across the following interesting story published over fifty years ago. It is an extract from *Basil Hatty's Travels in South America*. If there is any truth in it I would like to get some of those bees. Why, everybody could keep a hive or two then!

"From the Plaza we went to a house, where a bee-hive of the country was opened in our presence. The bees, the honey comb and the hive differ essentially from those of Europe. The hive is generally made out of logs of wood, from two to three feet long, and eight or ten inches in diameter, hollowed out, and closed at the end with circular doors, cemented closely to the wood, but capable of being removed at pleasure. Some persons use cylindrical hives made of earthenware, instead of the clumsy apparatus of wood; these are relieved by raised figures and circular rings, so as to form rather handsome ornaments in the verandah of a house, where they are suspended by cords from the roof, in the same manner that the wooden ones in the villages are hung from the eaves of the cottages. On one side of the hive, half-way between the ends, there is a small hole made just large enough to admit a loaded worker, and shaded by a projection to prevent the rain from trickling in. In this hole, generally representing the mouth of a man or some monstrous head of which is moulded in the clay of the hive, a bee is constantly stationed, whose office is no sinecure; for the hole is so small that he has to draw back every time a bee wishes to enter or leave the hive. A gentleman told me that the experiment was made by marking the sentinel, when it was observed that the same bee continued at his post a whole day. When it is ascertained by the weight that the hive

full, the end pieces are removed and the honey withdrawn. The hive we saw opened was only partly filled, which enabled us to see the economy of the interior to more advantage. The honey is not contained in the elegant hexagonal cells of our hives, but in wax bags, not quite so large as a hen's egg; then bags or bladders are hung round the sides of the hive, and appear about half full, the quantity being probably just as great as the strength of the wax will bear without tearing. Those nearest the bottom, being better supported, are more filled than the upper ones. In the centre or the lower part of the hive we observed an irregular shaped mass of comb furnished with cells, like those of our bees, all containing young ones in such an advanced state that when we broke the comb and let them out, they flew merrily away. During this examination of the hive the comb, and the honey were taken out, and the bees disturbed in every way, but they never stung us, though our faces and hands were covered with them. It is said, however that there is a bee in the country which does not sting; but the kind we saw seemed to have neither the inclination or power, for they certainly did not hurt us, and our friends said they were always *very muno* (very tame) and never stung any one. The honey gave out a rich aromatic perfume and tasted differently from ours, but possessed an agreeable flavor."

East Aurora, N. Y.

E. PENTON.

From your quotations and remarks, it is not improbable that the author of the book, written fifty years ago, was very little acquainted with bees and their habits. We quite agree with him that it would be rather a tedious duty for a bee to stand at the entrance and back out and in to allow bees to pass when gathering or working. We have counted from one to two hundred bees entering and as many leaving the hive per minute, so if he had to bob in and out of the hole five or six times a second, we think he would be glad to be relieved. There have been several descriptions published of the bees of Mexico and South America, but we believe the stingless bees have other habits which make them quite as objectionable, or more disagreeable to handle than even those with stings. If they were good bees to gather, that is just the kind we have been looking for. We could take the cells all out separately, and put them in an egg carrier or some-

thing similar and the bees could put honey up in 5c. packages for use.

## SUNDRY SELECTIONS.

GARRETT BLOUGH.—I write to let you know how my bees are getting along so far. I went into winter quarters with 18 swarms, and so far they are all right. I wintered nine swarms in my cellar, and so far they are capital. I carried part of them out yesterday to let them have a fly; it was such a fine day, and they were very proud to be at liberty, and the remainder I wintered outside in a clamp, packed with chaff all round and cushions on top, and they seem to be just as lively. I have no thermometer and I just went by guess and so far they are all right.

Paisley, April 5, 1888.

### LIFELESS BEES REVIVED BY HEAT.

THOS. C. HINDSON.—I am induced to send the subjoined by seeing a similar case mentioned in your issue of April 4th, p.p. 26 and 27. My mother kept a few hives of bees in the old country. One colony died in the winter from lack of stores so the old straw skep was brought into the house, the combs cut out and the bees thrown behind the fire. The fireplace was an open one such as are common in East Yorkshire. In a few minutes much to her surprise the bees began to climb up the chimney, having come to life again and we had to sweep them back into the fire.

Brookholm, Ont.

### A GOOD SHOWING.

SYLVESTER HOLDEN.—In the spring of 1887 I got ten colonies of bees and increased to twenty-six and took about 500 lbs. of comb honey. I have lost two colonies. Some of them are light. I am wintering in a cellar with a cement floor. There is an air pipe of six inches runs through the cellar and tile sixty feet underground. The outlet is a stovepipe running through the floor with a damper on the pipe to regulate. The size of the cellar is about twenty or thirty feet with a partition run through the long way. Some water came through one of the windows on to the floor and I threw some lime on it to dry it up.

Glenrop, Ont.

A little water on cellar bottom would not do much harm so late in spring as they will soon be out of winter quarters. 50 lbs. of comb honey last year spring count was very good considering the season and increase. With twenty-four colonies now you ought to make a splendid showing this season.

### INTRODUCING BY THE USE OF CHLOROFORM.

S. E. WILEY.—I have not much of an account to give you of my last season's work. My bees have wintered well in chaff hives out of doors. All have new queens. I fed about 30 lbs. of syrup last winter. During the season of 1887 I

introduced one queen by means of chloroform, and was successful. This was in a full colony of black bees, but I failed in another case where I had no fear of failing, viz.: in a small nucleus. I introduced the queen by means of a cage in the evening, the colony having been queenless for about a week. I did not know but that it had been received all right until the young bees hatched and proved to be black, so that they have evidently raised a queen of their own, and either destroyed or superseded the queen introduced. The queen in this case had one leg imperfect when she came to me in the shipping cage. Would bees destroy a queen in such a case?

Ploughkeepsie, N.Y., April 1st, 1888.

We have known bees to destroy their queen for the very reason you mention. She has been imperfect in some way, and they evidently decided that they would not have any but a wholly perfect royal personage to reign over them.

#### WANTS AN ASSOCIATION IN OTTAWA.

W. J. BROWN.—I notice in the issue of 14th December, page 778, your correspondent's (Mr. Morrison) remarks with regard to the establishing of a Bee-keepers' Association near Ottawa. I would here remark that I am in a similar position to Mr. M., and regret it very much. Although Mr. Morrison has double the number of colonies that I have, I am willing to do all that my means will allow, to forward the object of our wish, if he will only communicate with me.

Chard, Co. Prescott.

We think Ottawa, or that neighborhood, would be a good location for a Bee-keepers' Convention, and shall be glad to assist in any way possible to carry out the scheme. Perhaps we will be able to run down in the spring.

#### RE-QUEENING COLONIES.

WARRINGTON SCOTT.—In looking over my apiary register I find that I have some old queens four years of age. I wish to replace them with younger queens and should like to know the proper time to make the change with the best results.

Summer would be the time to make the change, but you will require to exercise considerable care and watchfulness from now on as the queens being so very old may not be able to keep up a sufficient supply of brood for the bees to prosper well. We have found that, at times it was necessary to take eggs and brood from prosperous colonies to keep up colonies with old queens.

#### BEE HOUSE.

I desire to build a honey house in which to handle my comb and extracted honey in the summer. Please give me description as to how

it should be built and about what size to accommodate 80 colonies.

Wooler, April, 1888.

You do not say if you want the house to be used for storing the bees in winter time but we presume that you desire a house that will answer both purposes. Descriptions of various houses will be found in our little pamphlet "Bee houses and how to build them," in which you will find much useful information.

#### COMB HONEY IN NORTHERN LOCALITIES.

C. F. SMITH.—My thirty-five colonies are all wintering nicely in a small bin in the cellar at a temperature of 40° to 44°, three degrees warmer than the rest of the cellar. Over one-half of my bees are in the new Heddon hive and I am so well pleased with it that I shall work all my bees into it and will make no other hive. I have studied bee-culture for the past seventeen years and I think I know what I am doing when I make the change, although I have said many times before that I would never buy a patented hive, finding, however, that with me, queen-excluding honey-boards are indispensable, I wish you would tell me the cheapest way to make them. I would also like to know whether or not comb honey can be produced in northern Ontario, or North Michigan, say latitude 46°, as in latitude 42°, same countries? Two acres hived yield as profusely in latitude 46° as in 42° Ontario.

Cheboygan, Mich., Feb. 11th, 1888.

Friend Smith you are coming to about the same conclusion as a number of our bee-keepers who have thoroughly tested the Heddon hive and principle. The demand for them is increasing very rapidly and their good points are gradually overbalancing the prejudices against them. We also believe that queen excluding honey-boards will soon be an indispensable article in every apiary and we don't know of any cheaper way of manufacturing them than the plan we have adopted of using part wood and part metal, that is a specially prepared metal with one row of holes between the wooden slots in the honey-board, allowing the metal to project in the saw cut in the wood about one-eighth of an inch on each side to support it. Metal alone as we used to make them does not give as good satisfaction as metal and wood combined. No doubt some seasons comb honey could be produced in northern latitudes as you mention, while other seasons it might not do so well, but with the advantages of the Heddon principle, placed

ing the sections so close to the brood or between two brood chambers, if you choose, should enable you to succeed almost anywhere. We believe linden or basswood yield fully better in northern than in southern localities.

## CAPPINGS

WHICH FELL INTO OUR RIPENING CAN.

WOULD NOT LIKE TO DO WITHOUT IT.

A. AINSLIE.—We would not like to do without the CANADIAN BEE JOURNAL. We look for it every Friday, and are always glad to get it. Our bees seem to be doing very well.  
Beaconsfield, Ont., Mar. 22, 1888.

A WELCOME VISITOR.

THOS. RAMAGE.—I enclose my subscription to the CANADIAN BEE JOURNAL. It is a welcome visitor. May good success attend it.  
Richview, Ont., Mar. 27, 1888.

JNO. R. WATSON.—I am well pleased with the CANADIAN BEE JOURNAL, and will not be without it as long as I have bees.  
Hawkesbury, Ont. April 4, 1888.

E. JULIEN.—I could not think of doing without the JOURNAL. My bees have wintered so far in good condition. I trust your valuable journal will prosper in the future.  
Petrolia, Ont., April 7, 1888.

## CIRCULARS RECEIVED.

F. M. Atwood, Rileyville, Ill., sends us his 7-page catalogue of bees, queens and supplies in general.

F. Boomhower, Gallupville, N.Y., forwards an 8-page catalogue of bees, queens, poultry, fruit, etc.

Chas. D. Duval, Spencerville, Ind., sends us his circular containing prices of bees, queens, poultry, eggs and beehive supplies.

A. L. Swinson, Goldsboro, N.C.—Letter circular. Prices of bees, queens, etc.

C. F. Bridgman has had printed at this office an 8-page pricelist of bees, hives, supplies, etc. Apianists in the North West would do well to procure a copy. His address is Fernton, Man.

We can supply 250 envelopes and 250 note heads, each with your name and business neatly printed on the corner for one dollar. The paper is of good quality, the envelopes are in boxes of 250 and we pay the postage. At this writing we have executed nearly three hundred orders, and have in many cases been favored with repeat orders for friends. Cash should accompany order and copy be plainly written.

# THE CANADIAN BEE JOURNAL.

THE D. A. JONES Co., Ltd.,

PUBLISHERS.

D. A. JONES,  
Editor  
and President.

F. H. MACPHERSON,  
Asst. Editor  
and Business Manager.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, APRIL 18, 1888.

## BUSINESS DEPARTMENT.

Observe our special offer of sections, in large lots, as given in our advt. columns.

Our "Sundries" department, though only in going order for a week or two, has proved a decided success. We are getting good orders every day.

How often one's temper is tried by finding a leaky tin amongst a lot just received from the manufacturer. Every one of you have felt angry and vexed at times, because just when you wanted it least a leak would appear. Now, it is almost impossible to remedy this state of things—that is absolutely, and the next best thing is to be prepared for any emergency by keeping close at hand the implements and materials to stop the leak. How nice they are to have around anyway, so that in case anything goes wrong with the tea-kettle or boiler, you can fix it yourself instead of running off to the tinsmith and paying five or ten cents for the job, which would not take a minute if you had the materials handy. In the little kit of soldering implements which we have just placed on our 75c. counter you will find just what you need, and there need be no more vexatious and trying times over a leaky tin. Every bee-keeper should possess himself of a kit.

Our plan of sending out notices to those whose subscriptions expire from time to time, a week in advance, is a splendid thing and we find meets with general favor. Most all of them renew, and in cases, where the subscriber wishes his JOURNAL discontinued, we have only to receive a card to give effect to his wishes. We have said that "most all of them renew" but still there are some who do not, neither do they order a discontinuance. This is all right, but in such cases, wouldn't it be much nicer for us to receive a card something like this: "Please send on the BEE JOURNAL, I know my time is up, but I'll remit pretty soon." How much better it would make us feel, and at what a small cost to yourselves.





# 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.....	\$ 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 $\frac{1}{8}$ , bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....		
2	Scribbling books, 200 pages....	40	90
2	Tacks, cut, 2 papers 1, 2 or 3 oz.	45	
<b>8 CENT ARTICLES.</b>			
	Butter stamps 3 or 4 inches....	\$ 75	\$ 1 75
	File, 3 corner, 3 or 4 inches....	75	1 75
	Ink-well, glass, safety, cannot spill.....	65	
	Mucilage, good sized bottle....	70	
	Oil cans, zinc.....	65	
1	Pencil, automatic indelible....	75	1 75
6	1 doz. Lead Pencils, No. 852, very good.....		
1	Time books for week or month.	75	
<b>10 CENT GOODS.</b>			
	Bill fyles, harpshape.....	\$ 90	2 10
2	Book of 50 blank receipts with stub.....	85	2 00
2	Book of 50 blank notes.....	85	2 00
2	Brush, flat, for paint, paste or varnish.....	80	1 90
3	Butter spades 9c. each.....	80	1 90
2	Boxwood pocket 1 foot rule....	90	2 10
	Chisel, firmer $\frac{1}{8}$ 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, $\frac{1}{8}$ and $\frac{3}{8}$ in.....	1 45	
12	Dextrine, $\frac{1}{2}$ lb. pkge. for pasting	1 30	
	Glue, 1 lb. ordinary.....	1 45	
	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 60	

**20 CENT ARTICLES.**

Postage.	Per 10 lots.	Per 25 lots.
Bit, best make, $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{9}{16}$ ..	1 90	4 50
Brass traps.....	1 80	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.....		
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 $\frac{1}{8}$ one side	1 90	
Thermometer.....		

**25 CENT ARTICLES.**

6 Cards, 50, ladies' or gents' visiting. Piries' super ivory...	2 00	4 50
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, $10/16$ , $\frac{3}{4}$ , $\frac{1}{2}$ ....	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, steel head, adze eye.....	3 60	
6 Pens, gross box, 'Bank of Eng.'	3 80	
" " Blacks'one or J.	3 80	
Ruler, 2 foot, boxwood, brass bound.....	3 60	

**50 CENT ARTICLES.**

5 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	

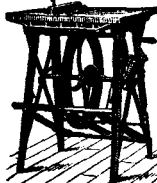
**SUNDRIES.**

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.....

Each.

75

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 & pricelist on application.

60 00

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

Hand saw, 26 inch, finest quality.....

55

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 canvas, 1000 pages.....

2 00

Plane, iron block.....

75

Wood smoothing.....

80

Post cards printed to order, 50 \$1, 100 Square, steel, grad. both sides, usual price, \$1.75.....

1 30

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., BEEHON, ONT.

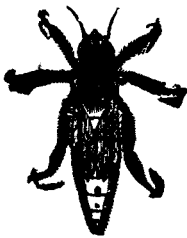
## Manufacturers of and Dealers in Apiarian Supplies

OUR CIRCULAR SENT FREE ON APPLICATION.

Publishers Canadian Bee Journal.

Fine Book and Job Printers.

### QUEENS.



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

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

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

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

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

#### EXPLANATIONS.

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

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

Tested queens are those which have been proven as to race and honey-gathering qualities. Selected queens are chosen because of color, size and honey-gathering qualities.

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

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

### BEEES.

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

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

MONTH.	Italian	Italian Crosses	Carniolan Crosses
May	\$8.00	\$ 8.00	\$ 9.00
June	7.00	7.00	8.00
July	7.00	7.00	8.00
August	6.50	6.50	7.00
September	6.00	6.00	6.50
October	6.50	6.50	7.00

The above prices are for up to *four* colonies; five colonies up to nine, take off 3 per cent.; ten colonies up to twenty-four, 5 per cent.; twenty-five colonies and over, 10 per cent—*always cash*. Bees at these prices will always be sent out in the Combination Hive, and each colony will contain a good queen, some honey, and brood according to the season.

### BEEES BY THE POUND.

Just as soon as we can raise them in the spring, we will have for sale, bees by the pound at the following prices:—Up to July 1st, \$1.25 per pound; after that date, 90c. per pound. Orders must be accompanied by the cash, and they will be entered and filled in rotation as received. We are booking orders now. Do not delay in ordering if you want prompt shipment.

### NUCLEI.

A two-frame nucleus will consist of one-pound of bees, two frames partly filled with brood and honey, and an extra good queen, price \$4. Two at one time, \$3.75 each—up to July 1st.

After that date the prices will be \$3 singly; two at one time, \$2.75 each.

We can send frames that will suit either the Jones or Combination hive. Please specify which you wish. Should you prefer the nucleus in either Jones or Combination hive, add price of the hive, made up, to the cost of nucleus.

Bees by the pound and nuclei must always be sent by express. Orders for nuclei filled in rotation the same as bees by the pound.

# APIARIAN SUPPLIES

MANUFACTURED BY

W. T. Falconer, - Jamestown, N.Y.

Are unsurpassed for Quality and fine Workmanship. A specialty made of all sizes of the **Simplicity Hive**. The **Falcon Chaff Hive**, with movable upper story continues to receive the highest recommendations as regards its superior advantages for wintering and handling bees at all seasons. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

## Bee-Keepers Guide

—OR—

### MANUAL OF THE APIARY.

The fifteenth thousand just out. 10th thousand sold in just five months. More than 50 pages and more than 40 costly illustrations were added to the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-Keeping.

Price by mail, \$1.25. Liberal discount made to dealers and to Clubs.

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

## BEE SWAX WANTED

Will pay 7 cents in cash or 33 cents in trade for any quantity of pure Beeswax.

Comb Foundation for sale, to suit any size frame or section. Wax worked on shares or for cash. All freight to Campbellville station C.P.R. If by mail to

ABNER PICKET,  
Nassagawaya P.O., Ont.

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

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

## 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, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly.

A. I. ROOT, Medina, Ohio.

## Headquarters in the West

for the manufacture and sale of

**BEE-KEEPERS' SUPPLIES.**

CHAFF AND SIMPLICITY HIVES, SECTIONS, FDN., SMOKERS, ETC.

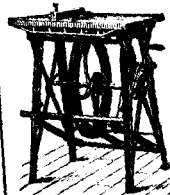
furnished at a great reduction in price. A full line of supplies always on hand. I also have on hand for sale at all times, Pure Italian Queens, Bees by the pound, Nuclei and Full colonies at very low prices.

Send for Catalogue.

A. F. STAUFFER,

Sterling, Ill.

## BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Charlton, N. Y., says—"We cut with one of our 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. & J.

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., LTD.,  
BEETON, ONT.