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THE CANADIAN  
**BEE JOURNAL**



*"The Greatest Possible Good to the Greatest Possible Number."*

Vol. VII, No. 23. BEETON, ONT., MARCH 1, 1892. WHOLE No. 307

**BEE-KEEPERS : - : - :**

I have bought a portion of the stock of the D. A.  
Jones Co'y and offer for sale at cost

Honey Knives, Extractor Castings, Honey Gates,

Hives in the Flat, Hives Set Up

AND OTHER SUPPLIES.

Write for prices before buying elsewhere.

**E. T. STRANGWAYS,**

**BEETON, ONT.**

ADVERTISEMENTS.

**POSITIVELY**

AFTER APRIL 30TH

I will ship Pure Italian Queens by return mail at the following prices:

- Warranted Queens, each..... \$1.00
- Tested Queens, each..... 1.50
- Select, tested yellow to the tip, breeders', each 2.00

I refer by permission to the Editor of this journal who has purchased a number of Queens from me.

**W. H. LAWS,**

b 22-7m. Lavaca, Ark., U. S. A.

**- W. R. STIRLING -**

Manufacturer of

THE  
MODEL BEE-HIVE,



Frames, Sections, Feeders,  
Smokers, Extractors, Honey  
Cans, Shipping Cases, Bee  
Veils, etc.

Also Breeder of Italian Queens

SEND FOR PRICE LIST.

Address,  
W. R. STIRLING,  
P. O. Box 9, Rondeau.

b-19-1y

**CANADA :: PATENT**  
FOR SALE  
ON A HONEY EXTRACTOR.

Four years use and the best of references prove it the neatest, handiest, strongest and cheapest Extractor known. Address, REV. A. R. SEAMAN, Connellsville, Fayette, Co., Pa., U. S. A. b 21-8t.

**EXTRACTORS - -**

::: FOR HONEY AND WAX

Zinc, Perforated Metal,

Honey Cans,

Drone Traps, Smokers,

Queen Excluding Boards,

KEPT ON HAND,

**Wholesale and Retail.**

SEND FOR QUOTATIONS.

**E. T. STRANGWAYS, BEETON.**

**EXCHANGE AND MART.**

**25 CENTS** pays for a five line advertisement in this column. Five weeks for one dollar. Try it.

**FACTORY REBUILT.**—Send for catalogue and special prices for early orders. Don't delay. The best goods at lowest prices. Send your name and address anyway. Address—W. A. Chryslar, Box 450, Chatham, Ont. ti.

**FOR SALE.**—House, barn, three lots, 60 colonies of pure bred bees, honey extractor, 6 six cwt. cans and other bee supplies. Magnificent bee pasture. Satisfactory reasons for selling. MRS. D. PATRICK, Glen Williams. 23-5t.

**MY BEE-KEEPING FRIENDS.** If you have any wax you wish made into foundation I am your man. Ten years a maker and not one dissatisfied customer yet. Satisfaction guaranteed. For further particulars address W. ELLIS, St. Davids, Ont. Express office: Niagara Falls, Ont. b 23 ft.

**UNTIL  
FURTHER NOTICE!**

We offer 5 per cent. off list prices on all goods for next season's use. Our new price lists will be issued about the middle of January.

We pay 35 cents trade for good average beeswax delivered here.

**MYERS BROS.,**

MENTION THIS JOURNAL. Box 94, Stratford, Ont.

**KEEP YOUR EYE AND ON THIS**

**"THE DOLLAR" KNITTING MACHINE**

Ask your sewing machine agent for it, or send a 3ct. stamp for particulars and price list. THIS IS GOOD FOR \$2. SEND TO CREELMAN BROS. Mfrs., Georgetown, Ont.

C B J 23 1y

**A BARGAIN**

FOR

**SUPPLY DEALERS.**

The Factory Plant, Real Estate and some Supplies formerly belonging to

**THE D. A. JONES CO'Y**

Is offered for sale at a

**- Tremendous Sacrifice -**

There is everything in the way of machinery necessary for the successful carrying on of a large manufacturing business of Bee Supplies, Sash and Door Factory, &c., &c.

Write for particulars to

Beeton, Ont.

**E. T. STRANGWAYS,**

ADVERTISEMENTS.

**- W. R. STIRLING -**



Manufacturer of  
THE  
**MODEL BEE-HIVE**

Frames, Sections, Feeders,  
Smokers, Extractors, Honey  
Cans, Shipping Cases, Bee  
Vests, etc.

Also Breeder of Italian Queens

SEND FOR PRICE LIST.

Address,  
W. R. STIRLING,  
P. O. Box 9 Rondeau.

b-18-17

PATENT  
**Wired Comb Foundation**

Is better, cheaper and not half the trouble to use that it is to wire frames. Every cell perfect. Thin, flat-bottom foundation has no fish-bone in surplus honey. Being the cleanest is usually worked the quickest of any foundation made. J. VAN DEUSEN & SONS, Sole Manufacturers, Sprout Brook, Montgomery Co. N. Y. b4 17.

**AGENTS WANTED.**

In every part of Ontario to canvas for lists of subscribers for the

**"Canadian Horticulturist."**

This magazine is published monthly by the Ontario Fruit Growers' Association, and contains articles written on fruit growing and gardening by leading Canadian fruit growers and gardeners, together with numerous illustrations and beautiful colored plates of fruits and flowers. Agents sending in club lists may have either.

**A LIBERAL COMMISSION**

Or in place of money a choice, for each new subscriber, from the following list of trees and plants, which will be sent them free by mail, Gipsy Girl (Russian) Apple, two plants Columbine, a year's numbers of the Journal. Address:

L. WOOLVERTON, . . . . . EDITOR,  
GRIMSBY.

**Have You Seen It.**

If not send for free Sample Copy of the  
**"Progressive Bee-Keeper"**

A Wide Awake Monthly Journal that pleases everybody. 50c. per year.

ADDRESS:  
Progressive Bee-Keeper . . Unionville, Mo.  
c-tf

SEND TO THE  
**ISLAND HOME**

Queen & Drone rearing establishment

For a sample of the bees which are causing so much excitement among bee-keepers. No charge for sample simply send your address on a post card, stating your wish, and return mail will give you a peep at the

**Five-Banded Hustlers**

which are warranted to work on red clover.

It is hardly necessary to say that our queens are superior to any reared in America, as our system of rearing and mating tells you that.

Don't forget to send for sample, even though you don't want a queen you'll say they are worth twenty five cents just to look at.

ADDRESS:

**A. W. BROWN**

b 7 17r PORT ROWAN, - - ONT.



Safe, Durable Fence, Only \$80 a Mile.

**Land-Owners** save one-half the cost and avoid dangerous barbs.

Agents make \$200 per month and expenses paid. The best local and travelling agents wanted everywhere. Write at once for circulars and choice territory. Address A. G. Hulbert, Patented, care of Hulbert Fence and Wire Co., 904 Olive Street, St. Louis, Mo. Factory Catalogue with 200 engraved designs and prices, sent free to any who want heavy iron and wire work for city cemetery and farm fences, etc. b-7 17r

**HONEY, HONEY WANTED**

The undersigned wishes to exchange Gold and Silver Watches for any quantity of honey, both comb and extracted. All watches warranted.

I can, if required, give references and the names of a number of Bee-keepers who have watches bought from me.

All watches sold at wholesale rates, and less than you can buy them for at any jewellery store.

I will pay 18c. for good, white, No. 1 Comb Honey, and 9c. for No. 1 Extracted, for delivery at Tilbury Centre.

Box 2. N. H. SMITH.

P.S.—Price List of watches mailed to any address on request.

**A GOOD OPPORTUNITY.**

With small capital to secure established business. The Executor for "Estate of late Jacob Spence" will receive tenders for the stock of glass, tins, honey, bee-keepers, supplies, &c. Stock amounts to about \$1500. Apply to 81 Colborne St., Toronto.

**GEORGE SPENCE, - - Executor,**  
b11 5t

**Ohio takes the lead - - -**

Tested Italian Queens, each, \$1.25 six, \$7. Untested, 75 cents; \$4 for six. Queens prolific and bees good honey gatherers. Safe arrival guaranteed. MISSES S. & M. BARNES, Piketon, Ohio. b4 17.

ADVERTISEMENTS.

**ONTARIO**  
**Bee-Keepers' Association!**

Organized Sept. 17th, 1880.  
Incorporated March 1886

**OFFICERS FOR 1892.**

**PRESIDENT,** STRATFORD  
**F. A. GEMMILL,**

**VICE-PRESIDENT,** NASSAGAWEYA  
**A. PICKETT,**

**SECRETARY,** STREETSVILLE  
**W. COUSE,**

**TREASURER,** HOLBROOK  
**MARTIN EMEIGH,**

**AUDITORS,** WALKERTON  
**J. B. RICHIE,** WALKERTON  
**A. TOLTON,**

**FOUL BROOD INSPECTOR,**  
**WM. McEVOY,** WOODBURN.

**DIRECTORS.**

District No. 1.—W. J. Brown, Chard.—Swornont, Dundas, Glengarry, Prescott and Cornwall.  
District No. 2.—J. K. Darling, Almonte.—Lenark, Renfrew, City of Ottawa, Carleton and Russell.  
District No. 3.—M. B. Holmes, Delta.—Frontenac, City of Kingston, Leeds, Grenville and Brockville.  
District No. 4.—Allen Pringle, Selby.—Hastings, Prince Edward, Lennox and Addington.  
District No. 5.—S. Cornell, Lindsay.—Durham, Northumberland and Victoria.  
District No. 6.—Wm. Couse, Streetsville.—York, Ontario, Peel, Cardwell and Toronto.  
District No. 7.—A. Pickett, Nassagaweya.—Wellington, Waterloo, Wentworth, Halton, Dufferin and Hamilton.  
District No. 8.—F. A. Rose, Balmoral.—Lincoln, Welland, Haldimand and Monck.  
District No. 9.—J. B. Hall, Woodstock.—Elgin, Brant, Oxford and Norfolk.  
District No. 10.—R. McKnight, Owen Sound.—Huron, Bruce and Grey.  
District No. 11.—J. B. Aches, Poplar Hill.—Perth, Middlesex and London.  
District No. 12.—E. A. Jones, Kertch.—Essex, Kent and Lambton.  
District No. 13.—D. A. Jones, Beeton.—Algoma, Simcoe, Muskoka and Parry Sound.

A General meeting of the members shall be held once a year and shall be known as the Annual meeting.

Every Affiliated Association shall receive an annual grant out of the funds of this Association. The amount of such grant shall be fixed by the board from year to year.

Each Affiliated Association shall be entitled to the privilege of two representatives at the meetings of this Association in addition to those who are already members of this Association, and such representatives shall be entitled to all the rights and privileges of members of this Association.

Any County or District Bee-Keepers' Association in the Province of Ontario may become affiliated to this Association on payment of five dollars, which shall be paid to the Secretary on or before the 1st day of May in each year, but every Local Association, so affiliated, must have on its membership roll at least five members who are also members of the Ontario Bee-Keepers' Association at the time of its affiliation and must continue to have a like number of its members on the roll of this Association while it remains in affiliation.

County and District Associations seeking affiliation should notify the Sec'y, Wm. Couse.

All members of this Association will receive the CANADIAN BEE JOURNAL gratis.

**DR. J. W. CRENSHAW,**  
VERSAILLES, KENTUCKY, U.S.

offers for sale **Untested Queens.** May and June, \$1; After, 75c. Imported or Doolittle mother, as preferred. Contracts solicited. Roots goods for sale; also Celery plants, July to Sept., at \$2 per thousand. b4 ry  
MENTION THIS JOURNAL.

**EXCHANGE AND MART.**

**52 CENTS** pays for a five line advertisement in this Column. Five weeks for one Dollar Try it.

**SEND** us fifty cents and get Hutchinson's "Advanced Bee Culture." C B | Beeton.

**3000** lbs of No. 1 Clover and Basswood Honey for sale. Sample and price on application.—**MOSES PIERCE,** Brinsley, Ont. b 13 5t. pd

**WE** have several bound volumes of Clark's "Birds Eye View" of Bee-keeping w 11 mail on receipt of 10c **CANADIAN BEE JOURNAL,** Beeton, Ont. b-24-tf

**FOR SALE.**—20 colonies bees, at a sacrifice, in good hives, will weigh from 75 to 100 lbs. Must be sold at once. Will give a good bargain. **R. J. GRACEY,** Wellandport, Ont.

**HONEY FOR SALE.**—Twelve hundred pounds choice clover and basswood honey. Warranted pure. Put up in ten and sixty-five pound cans. Price ten cents per pound. **F. N. OLIVER,** Auburn, Ont. b 16 t.

**FOR SALE** or exchange for anything I can use around my apiary, a small job printing outfit. For particulars address **JAS. SHAW,** Kemble, Ont. b 16 t.

**1893.** WRITE now and see how low I can supply you with odd and regular sized hives and frames. Also get prices on sections, foundation, Honey Extractors, Knives, smokers, and anything you may need in the apiary for 1893. **W. A. CHRYSLER,** Box 450 Chatham, Ont.

**ONLY ONE DOLLAR.** Every Bee-keeper should have it. Cook's "Bee-keeper's Guide, or Manual of the Apiary," by Prof. A. J. Cook, the well known authority on apiculture. Brimful of information for Bee-keepers. A regular ABC, of the apiary. If you have not one already, forward us \$1 and we will send it by return mail.—**CANADIAN BEE JOURNAL.**

**8 UNTESTED QUEENS**

two months old,

**75 cents each.**

1000 pounds basswood honey at 7 cents, F.O.B.

**R. F. WHITESIDE,**

b11 12t.

Little Britain, Ont.

**Caution!**

EACH PLUG OF THE

**MYRTLE NAVY**

IS MARKED

**T. & B.**

IN BRONZE LETTERS.

**NONE OTHER GENUINE.**

b p 20 1 yr



“ The Greatest Possible Good to the Greatest Possible Number. ”

VOL. VII, No. 23. BEETON, ONT., MARCH 1, 1892. WHOLE No. 307

## GENERAL.

FOR THE CANADIAN BEE JOURNAL.

### The Punic Bee Eclipsed.

IN SHORT WE BELIEVE THAT THEIR SALE WILL ENTIRELY CEASE BOTH IN EUROPE AND AMERICA AFTER THE NEW RACE BECOMES KNOWN.

A NEIGHBOR of mine has been reading the C.B.J. very earnestly for years, and he has come to the conclusion that it is high time for Americans to put their wits to work to produce *Apis Americana*.

This new race of bees that Mr. Smith is producing has many advantages over any other honey bee in America. In the first place, they are much longer lived, and can do double the work of the ordinary bee, from the fact that they work night and day. This may seem a little strange, yet why has not this difficulty been overcome before? When our honey seasons are so short in some localities the bee that can gather honey at night as well as in day time must certainly possess wonderful advantages.

The way this is brought about is a cross between one of our best honey gatherers that was secured from the Bay State apiary, a daughter of that wonderful \$100 queen. In fact they were the only bees he could get that would cross readily with the pure American lightning bug; and being in the habit of making such rapid and extraordinary changes—turning from a jet black to a golden yellow in a short time. It will be readily understood that there would be but little difficulty in making a satisfactory cross of this bee and the lightning bug.

Now, Mr. Smith does not claim that the lightning bug does any more than add two su-

perior qualities to the bee; one to furnish light at night to gather honey, and the other to add to its longevity. He claims that this bee is capable of gathering just two crops of honey in one season. He says the honey gathered at night is slightly thinner than that gathered in the day time, which he attributes to heavy dews and moist atmosphere. He is determined not to sell any of the queens of this new race until he gets them patented, for fear some of these wonderful queen-producers overstock the market, and bring down the price before he has an opportunity of realizing on his production.

One of the claims in his patent is, the plan of crossing the queens with the American lightning bugs or fire-flies. The second will be the patenting of a race of bees that will gather honey all night and furnish their own light. He claims the whole system is so simple and so easy that a novice can work it perfectly when it has been thoroughly explained. Some may doubt this, but he claims it is just as simple and as easily done as it is to produce pure golden Carniolans in one season from the pure Carniolans from their native country.

He does not intend to sell any queens until he has sufficient on hand to supply all customers at the same time. This he thinks will prevent the trade getting into one or two hands and injuring his business. Surely this rivalry in superior races will bring about something satisfactory, but we would strongly urge that they be tested one season by himself, so he will be able to speak more fully of their qualities.

ANNANIAS JAMES.

The door leading to success ought to be labelled “PUSH”—Beekeepers Review.

### Bee-Scouts Selecting a Home.

**F**IND that the little bee will bear a great deal of close study, and then we may not understand all of its ways. Of late there has been a good deal said about bee-scouts, some claiming that bees have scouts that go in search of some proper place for their future home, which they usually find in some hollow tree before they migrate, while others ridicule the idea. So I will tell a little experience of my grandfather's I have heard him tell it many times.

He was quite a bee-hunter. He says he found a bee tree, as he supposed: the bees were flying in and out freely, and he thought he could cut the tree and save the bees in a hive, it being swarming time.

So he took the hive and the necessary things and commenced cutting the tree, but before he had it down, what should he see and hear but a swarm of bees that came and located in the very place where he thought he already had a colony. He continued, and cut the tree, but instead of finding an old colony with its honey, he found a swarm with nothing but bees, which he saved in the hive.

His conclusion was that the bees were there to inspect and prepare the tree for their future home, and I never could talk him out of the idea.

Now, a little of my own experience is, that at two different times I have followed absconding swarms, and kept up with them, one mile or more until they went into a tree where they staid. They went straight to their destination and I think they knew where they were going.—  
JOHN KIDNEY in *A.B.J.*

### How I Began Bee-Keeping.

**I**N July 13, 1889, an after-swarm settled in one of my apple trees, and having no former experience in bee-keeping, I started in a rather queer way to hive them. I wrapped a sheet around my head, climbed into the tree and began hiving them in a cracker box; in the course of an hour I succeeded in getting all the bees into it. I went that evening to a neighbor who kept bees, and purchased a hive with drawn combs. The next morning he came and put them into the hive for me. They succeeded in getting enough stores for the winter. The next season being a poor one for honey in this locality, I increased my colony to three, one being a prime swarm and the other a nucleus. They gathered only honey enough for winter stores. Last spring I started with three colonies, and increased them to ten, three being prime swarms,

and four nuclei. I also got 20 gallons of fine white honey, the most of which was basswood. I also caught a runaway swarm in the meadow. I started mowing in the morning, but before I got around the lot I mowed through a swarm of bees. I went home immediately, got a hive and drawn combs, and set it, without a bottom, over the swarm, which again settled in the grass. In the course of 15 minutes they were all in the hive. I then took them home, and they did well. Thus I have 11 colonies in the cellar in good condition. On Aug. 21, 1891 I secured a pure Italian queen, and she has reared about five frames of brood, with which I am well satisfied. I also received another Italian queen about Oct. 10, but as it was so late she reared no brood. By next fall I intend to have all Italian bees, as I am best pleased with them.—  
DANIEL GERREER, in *A.B.J.*

Oakwood, Wis. Jan. 10, 1892.

### Vaseline for Stopping Robbing.

**I**PROMISED to give some further account of an upset among my bees in consequence of an attack by robbers through the careless replacing of a hive roof. The robber bees got into the super in hundreds, and, after the roof had been righted, they crowded about every joint and crevice of the neighboring hives, as well as the one in question. So I got smokers in play, and as the bees were smoked off, I painted the joints with vaseline. To my great relief, I found that this stopped the robbing, for not a bee would come within an inch of where the vaseline was. To make doubly sure, I also painted around the entrances, being careful, of course, to keep it off the alighting-board.

By this time the prisoners in the hive roof were trying to escape by the cones, as I had stopped the entrances to the latter, while applying the vaseline; so before I released them I painted around the base of each one in the same way and this effectually stopped the attack in that quarter, for in less than an hour all were working as usual. Not a bee was killed, not a sting inflicted, and peace was restored.

Another "dodge" that I have found effectual is this. On the morning of the day on which you are going to take the honey, put a couple of pieces of naphthaline at the ends of the frame next to the sides, and it will stop any stranger bees from entering the hive by the usual entrance.—  
—T. H. C., in the *British Bee Journal*.

"Bee-Keepers' Pamphlets," by D. A. Jones, mailed on receipt of 5c. Address, THE CANADIAN BEE JOURNAL.

## A. B. J's. Reply to Mr. McKnight.

MR. MCKNIGHT, in the last issue of the Canadian Bee Journal, pays his respects to Gleanings and the American Bee Journal about the matter of the incorporation of the North American Bee Keepers' Association.

Nothing now seems to need further remark, except, perhaps, the point about our consulting the rest of the "Committee on Incorporation," and deferring the matter until after the Albany Convention—but that idea never struck us.

It was fully discussed at Keokuk, and decided almost unanimously in favor of incorporation. The committee was appointed to consummate the work—not to consult and defeat the vote of the convention.

The work of the committee was purely ministerial. The only point it had to decide was as to who should sign the incorporation blanks. That was done by a full, free, and almost unanimous vote! The "life members" were instructed to sign the "blank application"—the Treasurer "pressed the button" (paid the fee), and the State "did the rest!" That is all there is of it.

If the Association ever tires of that relationship, all it has to do is to change its name, thus becoming a new but not incorporated body, and be entirely free to do as it may be inclined.

As far as the editor of the American Bee Journal is concerned, it is a matter of no interest whatever, one way or another, and he would not give a button to influence the decision either way. He heartily endorses the concluding sentence of Mr. McKnight's open letter to him, where he says:

"And now, in conclusion, permit me to assure you that nothing which has transpired has lessened our esteem for the brethren across the border, with whom some of us have had much pleasant intercourse in the past. The friction between bodies corporate, and not between individuals."

As these corporate bodies have officially taken their positions, it is not worth while for the individuals to do anything else than to work together harmoniously for the general good. Now let us have peace."

from Bee-Keepers' Magazine.

How to Produce Extracted Honey, When to Extract, etc.

BY M. H. DE WITT.

THE marketing of extracted honey is an important matter; for a good article, attractively put up, will always command the best price and it is therefore of utmost importance to producers to have honey put up in

the best shape. None but a thoroughly good article should be produced or placed on the market, as the price depends on the quality. A good article of extracted honey has excellent qualities which, when well known, will commend it to all consumers, and is equal in every respect to the very best article of comb honey. It is very gratifying to know that extracted honey is now produced to a much larger extent than ever before. Without saying anything to the disparagement of comb honey, I may say that I think it will become a staple only in the extracted form. Its excellent qualities, when better understood, will bring it almost into universal favor. Every bee keeper should fully supply his own locality, and he should let it be distinctly understood that it is the pure honey taken from the combs by centrifugal force, and that nothing is added to it and nothing taken from it but the comb, and that it is not the old-fashioned "strained honey," which was obtained by being taken from mashed brood combs and "strained" from dead bees, pollen, etc., but that it is the pure liquid gathered from the flowers, which will give health to the body, force to the mind and strength to the intellect of those who use it. It should also be kept before consumers that granulated honey can be reduced to its liquid state in a few moments by placing the jar in warm water. When thus liquified, it so remains for a long time without crystalizing. Consumers may be sure of a wholesome article by purchasing granulated honey and reducing it. Mr. James Heddon used earthen crocks holding about ten pounds, and he likes them very well; it is very convenient to take the honey from them when it is candied, or to liquify it by placing the crock in warm water. If the product is for a home market, then of course, the producer must study the local preference regarding the size and style of package, as well as the grade of honey most easily disposed of. As far as practicable, keep each grade of honey separated; it is a mistake to suppose a few pounds of inferior or different shade honey will make no difference in a large bulk of white clover honey, or that thereby a better rate will be obtained for the second grade article. Instead the result will most likely be to class it all as second grade, and the price of all will be depreciated. Again, if possible, keep the basswood and white clover honey separated; in order to do this, keep a vigilant watch of the basswood bloom, and extract the white clover quite close before the bees commence gathering from the former. A little clover in the basswood honey, however, will not do the harm that would result if the proportions were reversed.

After the basswood harvest is gathered by the bees, extract it closely, for it will not taint any other honey, even though it be from fall flowers, and somewhat darker, with its aromatic flavor. For retail packages, tin-pails with close-fitting covers are the best. Purchased by the gross or in lots of one thousand or more, the price is so inconsiderate that no consumer will object to paying what they cost in addition to the price of the honey, for they are so handy to have in the house that not one in a hundred would return the pail. A neatly printed label should be gummed or pasted on each pail, stating the amount and kind of honey, name of the apiarist by whom put up, and giving in a foot-note directions for liquifying the honey in case it granulates.

Saug Run, Garret Co., Md.

From British Bee Journal.

#### Carrier Bees.

WHERE will the imagination of inquiring thinkers ever stop? We already had carrier pigeons, swallows as harbiners, now we have bees and waeps as messengers. A bee-keeper of the Gironde, M. Teynac, formed the idea of ascertaining whether insects might not be capable of performing, within a small radius, what birds do at a great distance, namely, carry messages. Experiments are always interesting.

Numerous observations have established the fact that if a swarm of bees is enclosed in a box, or other receptacle, and carried to a distance of from two to three miles from the hive, any of the bees which have regained their liberty will soon take flight in the direction of their hive. Those more rapid than the rest will traverse the intervening space in twenty or twenty-five minutes, which corresponds to a speed of about eight miles an hour.

Starting from this fact, M. Teynac has led the way in the introduction of carrier bees. Suppose the owner of a swarm wishes to initiate intercommunication with a person several miles off. He will first of all send him a small hive for conveying the bees. It is a box with a cover of wire netting, provided on one side with small holes that can be closed with a hinged lid. The bees are put in through these holes. The little box is so light that it can be sent by post. On reaching their destination, the insects are set free in a room provided with honey for their use. Whilst the bees are regaling itself, a minute dispatch, prepared beforehand, is fixed on its thorax. This dispatch is a light and short leaf of paper, split with a chisel, so as to form two feet, which are coated with isinglass.

The bee is seized, and the paper applied quickly so that the glue touches neither the head nor the wings. After this the insect is set at liberty, and it unhesitatingly sets off in a direct line towards its former domicile. There it meets with an unexpected obstacle. In front of the doorway of each hive a small tin box has been placed, which is pierced on one side with holes just large enough to allow a single bee to pass through. But the latter embarrassed by the dispatch which it bears on its back, like a rigid wing, makes unavailing efforts to pass through. It is obliged to wait until it is relieved of its burden. In this way M. Teynac has several times successfully experimented.

From American Bee Journal.

#### Qualities of Black Bees Defended.

A. D. ELLINGWOOD.

BELIEVE I was the first person to take up the cudgel in defence of the German black bee, and I feel gratified to see others coming out courageously and taking their stand along with me. I am thoroughly convinced that the black race of bees is a very valuable one, and that with the same care and attention that is given the Italians, they will give just as good results.

I have been making a careful canvass of the Eastern States and I find that the black bees are decidedly popular. I have received a great many letters, complimenting me on my courage in defending them, and many of the writers say that they by all means prefer them to the Italians.

In my own yard the blacks have excelled the Italians every time. One year I took 500 pounds of honey from 6 black colonies and from 30 colonies of Italians in the same yard I took only about 100 pounds. They did scarcely anything but swarm.

I do not say that the Italians are an inferior race, but I do claim that the blacks are just as good, and I prefer them to all others. I have had six years' experience with bees, and have usually had from 75 to 100 colonies, so I am fully prepared to substantiate any claim I make regarding my favorite bee.

To prove to any of the intelligent bee-keepers that the black bees are a very fine race of bees, I should like to have them experiment with a nice, large colony and give them a fair trial, getting them from any reliable man in Maine, New Hampshire or Vermont. Let the bee-men who have the German or black bees, and know and appreciate their worth, come forward and defend them. They are valuable bees. Let us prove it.

From Gleanings.

### Returning Swarms to the Parent Hive.

DADANT EXPLAINS HOW TO DO IT AND NOT HAVE THEM SWARM OUT AGAIN.

**FRIEND ROOT:**—The inclosed letter from J. S. Williard explains itself. Mr. W. desires that we should give in Gleanings the particulars of our plan of returning the swarms to the parent colonies to keep down increase. You will remember that this was mentioned in Gleanings for 1891, page 541, and called fourth a number of inquiries from bee-keepers in different localities.

Messrs. Dadant & Son:—In describing your plan of keeping down increase by returning the swarm in 48 hours, you do not say where to hive the swarm in order to save the bees that have their new home located; and, also, would you hive them in an empty hive or starters? A friend of mine wanted me to write you for particulars about that plan of returning the swarms; and, in fact, I thought I should like it myself too, and very likely several of the readers of Gleanings would like to have you describe the plan more minutely, and if you think so, you can write a letter to Gleanings at your leisure.

J. S. WILLIARD.

Bedford, Iowa, Feb., 1892.

We wish to say, first, that this plan is not of our originating. We saw it first in the Cours d' Apiculture, of Hamet, published in Paris years ago. Hamet advised this plan more particularly for the secondary swarms. In those days of box-hive bee-keeping there was but little need of returning primary swarms to their colony. But we tried this method on primary swarms, and with good success. We notice, also, that a number of apiarists have tried it the past summer with fair results. Hamet says: "The swarm which is to be returned to the parent colony should be hived like any other swarm, and placed as close to the old colony as practicable. The next day, or the day following, the swarm should be shaken in front of the parent hive, just as is done in uniting several swarms together. They should never be returned the same day, as they would surely start out again in 24 hours. When they are returned after a lapse of time there is a fight between the queens, if the young ones are hatched, or the returning queen destroys the others in the cells."

Collin in his book, "*Le Guid du proprietaire d' Abeilles*," advises the apiarist to place the swarm on the old stand and remove the old colony to a new location, waiting till the queens are all hatched before bringing it back. But this method has one objection—the swarm re-

mains too long in the new hive, and raises brood in it, and this brood is practically lost.

The plan that we followed, and which we recommend, is to hive the swarm into an empty hive with frames and guides of foundation, exactly as if it were intended to be kept, and to place it near the old colony. In 24 to 48 hours, shake all the bees in front of the old colony. The combs that have been built in the meanwhile will never come amiss, and the few eggs laid will hurt nothing. It would be still better to remove the old colony from its stand, and return it when removing the swarm, and also to destroy the queen that has the least value—the queen of the swarm if very old, or the young queen if the old one is valuable. In fact, it is better that the old queen should remain, as bees are more likely to swarm with an unimpregnated queen than with a laying one.

We believe that this method prevents further swarming, only when the hive is in such condition that it would not have sent forth a second swarm. The issue of the first swarm puts an end to the swarming fever, the supplementary queen-cells are destroyed by the young queen, and one of the two queens vanishes in a duel when the swarm is returned. Unless the season is very favorable, the time for swarming passes away before the bees find out that they have been fooled by the apiarist, especially if he has provided ample room for their surplus honey.

As most of our bee-keeping friends well know, we are no longer comb-honey producers. For a number of years we have raised nothing but extracted honey, and therefore have no need of this method of preventing increase, for (Dr. Miller to the contrary notwithstanding) in an apiary properly run for extracted honey, there is no swarming to speak of. Every time that we have had swarming to any extent it was when we had infringed upon the rules that require that a colony of bees be supplied with a sufficient amount of empty combs ahead of need during the entire honey season. It may be of interest to our readers to know how we found out the value of Hamet's advice on the return of the first swarm to the parent colony. It was in 1876. We had a number of colonies of bees in the apiary of our friend A. Daugherty, residing in Rocky-Run township, some 14 miles from us, in a very good honey producing district. The season was a rushing one, and we were behind. The bees were swarming wherever they had not been provided with a large stock of empty combs. Friend Daugherty, who had some 80 hives of bees, including ours, found himself

short of empty hives and began harvesting the swarms in any kind of box, in nail-kegs, in flour-barrels. When our junior reached his apiary with a wagonload of empty hives, there were some 12 hives full of bees, that were not hives at all. So we began transferring the bees out of these boxes into the movable frame hives, by shaking them out in front. The bees had been hived from one to three days previously, and had but very little comb built in their odd-shaped homes. Strange to say they were so ill satisfied with the unceremonious transfer that every swarm left the new hives provided for them, and went back home to their parent hive. None of these hives swarmed subsequently; and as the latter part of the season was unfavorable they were the hives that made the best crop.

We hope the above is a sufficient explanation, and that Mr. Willard and others will find in it enough to pay them for the trouble of perusing it.

DADANT & SON.

Hamilton, Ill., Feb. 1892.

From American Bee Journal.

### Who Should Keep Bees.

MRS. JENNIE ATCHLEY.

THE question is often asked, "Will it pay me to keep bees? I answer yes, and I will tell why. I have argued against farmers, as a class, fussing to produce honey, when they can buy nice honey so cheaply. The idea was, that they could raise \$20 worth extra of corn, oats or cotton, at a profit and with that money buy the honey from a neighbor who made bee-keeping a business, while, if they had raised the \$20 worth of honey, it might have been at a loss. I have always argued that this was sound business policy; and, for that matter, I still think so, but I am satisfied that it will not work.

Many farmers seem to have the feeling that they must not pay out money for anything they can possibly get along without. The writer was born on a farm, and it is easy to see where the trouble lies—I tell you it makes all the difference in the world, what one's bringing up has been. It makes no difference how much nice honey is in the market, there is a use for every dollar besides being spent for honey.

I will quote something from Mr. Terry's "Strawberry Book," to which I am indebted for the spirit of this article:

"I remember once going home with a well-to-do farmer who had many acres of land to manage, and considerable money invested in outside business. He showed me among other

things, a large bed of strawberries. Now I knew that this friend was close to a market where he could buy fine home-grown berries at fair prices, and I was rather surprised that a man with so much business on his hands should be bothering to grow his own strawberries. So I said to him, you grow those, of course, for the pleasure of it, and not because it pays you to fuss with such little matters, when you have so large a farm and so much other business to attend to? No: I raise them, he replied, because I should not have them if I did not. I tried your plan, (of raising something else to buy berries with) and we did not have, I presume, more than a peck of berries during the season, although they were plentiful in the market. I could not buy more than a quart or two at a time, and that went against the grain, my bringing up on the farm had been another kind. I could not buy them freely. It was raise them or go without.

"Again a well known agriculturist sat with me at a hotel table. He had been a farmer all his life, and is well off. For a wonder, there was some real good cheese on the table. Our friend helped himself several times. He seemed to like it very much. I said, "You do not get good cheese down your way, I guess, judging from the way you take hold of that." His reply was; "They have it at the groceries, but, to tell the truth, as we do not make cheese we do not have it on our table one week out of the fifty-two." Now this farmer lives in a house that cost at least \$5,000, and has no lack of funds; but although evidently fond of cheese, he goes without it because they do not produce it. His bringing-up clings to him, and he cannot use freely what must be bought for money—don't you see?

If this is the case among well to do farmers, who could draw their checks for thousands of dollars at any time, and have them honored—how would it be likely to be where there are two or three ways for every dollar to go?

I visited such a farmer, last winter. He is not really poor, but is not yet out of debt, and said he had hard work to pay the interest and make both ends meet.

His wife told me that she had tried every Spring to get her husband to set out strawberry plants. He said: "Oh! we can buy strawberries cheaper than we can raise them;" "And now," she says, "how many do you think he bought last year? not one single quart!" Now this looks a little against that friend, but I know how it was. He thought in the Spring it was cheaper to buy than to try to grow them. but when it came time to buy, he hadn't the money to spare.

He felt as though he must pay his debts instead of buying luxuries, and that was honest and square.

Just for this reason, thousands of children and families will go without honey and strawberries, unless they produce them. Even if they are not in debt, they may be short of money, and berry time will slip by and they will not have any.

Now, let us take human nature as we find it, and urge every farmer to produce his own honey.

Floyd, Texas.

From American Bee Journal.

### Imbedding Wire by Electricity.

W. E. DAGES.

PLACE the wired frame over a smooth straight board, a trifle smaller than the frame, until the wire is  $1/16$  of an inch (or half the thickness of heavy foundation) above the board from end to end, then place the sheet of foundation on the wire; let a current of electricity pass through the wire, from  $\frac{1}{4}$  to  $\frac{1}{2}$  second, when the foundation will drop to the board, and the wire will be imbedded as perfectly as though it grew there. The colder the foundation the better. The battery I use for imbedding wire is an ordinary plunge battery—one I made myself from refuse electric-light carbons. The battery complete cost me 10 cents, and a like amount was invested in the acids. The current is strong enough to heat a No. 39 wire, 6 feet long, to  $200^{\circ}$  or  $250^{\circ}$  Fabr. If I had much wiring to do, I could rig up a table where one man, after the frames were wired, could imbed from 5 to 18 frames per minute.

Morris, Ills.

FOR THE CANADIAN BEE JOURNAL.

### The O.B.K.A. a Failure.

DEAR EDITOR,—While at the annual meeting in London, I was attacked with la grippe, from the effects of which I am still confined to my room; but I am now slowly recovering. Being unwell during the three days of the meeting, I was not in much of a mood to get up and take part in the several debates, (even had I been a good speaker) that took place, the same as some of the long winded gentlemen, who threw out such cutting remarks about me, and who had to be called to order by our worthy President. I certainly admit that the O. B. K. A. owes much to the gentleman referred to; but sometimes when a man feels and knows that, he gets beside himself a little.

I was present at every session during the meeting, and from my point of view, the whole thing was of very little importance to the majority of bee-keepers, who come from near and far to learn something in practical bee-keeping; excepting the paper read by Mr. Myers, on "Rendering old comb," and the discussion that followed, and Mr. Smith's paper on "Apiarian Exhibits."

W. J. BROWN.

Chard, Feb., 11th, 92.

From Gleanings.

### Ants, Plants, and Bees.

CURIOUS WAYS IN NATURE'S ECONOMY.

THE following, sent us by Mr. P. H. Baldensperger, our correspondent in the Holy Land, is a translation made by him from a German periodical. It contains so many points of interest, well authenticated, that we believe our readers will be pleased and benefited by its perusal.

It is a well-known fact, that plants offer to bees, butterflies, and flies, the delicate nectar. In return, the insects unconsciously fertilize the flowers by carrying the pollen from one to another. But very often the insects, forgetting their duty, instead of creeping into the flowers simply cut open the flower outside the corolla, where the nectar is deposited, thus carrying away the sweet without touching the anthers, and so omit the fertilization. The bumble-bee finds it a good deal easier to cut open the tube of a red clover blossom than to creep into the bottom of the flower about  $\frac{3}{8}$  of an inch deep. Darwin found almost every flower of a kind of heather, *Erica tetralix*, cut open in this way, and the honey carried off. But this way of robbing, contrary to nature's design, is very tiring too, as is reported by Prof. Magnus, who observed bees on the lion's mouths (*Antirrhinum majis*, L.) trying the experiment, but they could not hold their position long on account of the evenness. They stopped only a few seconds and had to fly further, while otherwise they would stay a minute or two inside the flowers, and by degrees they found plenty inside, and would again try to cut open the plant. Quite a number of tropical plants have a special preventive system against such culprits. According to Dr. Burch, of the Botanical Garden in Buitenzorg, Java, many plants have ant-guards against these robbers. Plants and ants are on friendly terms, as is known by divers kinds of South American trees which have numbers of protecting ants at their disposal, and they are fed liberally, and are ready to fight the leaf-cut-

ting ants. They do their business very thoroughly. According to Dr. Burck's observations, that ant-guard system is enlarged in a very peculiar way. The enticement by which these plants gather the ant-guards around them consists in the secretion of honey outside the flower at the corolla, just at the point where the danger is apparent: consequently there are already some busy ants licking this secretion. The honey-glands, where this is secreted, are called the outer nuptial nectaries, to distinguish them from the inner ones, as they are not meant for fertilization. As soon as a bee observes the ant-guards on the outside it enters the flower in the natural way. Should it venture among the ants, it would be immediately laid hold of by its antennæ and legs, and it would be "done" with her. Besides this, it is seen that flowers with out this guard, as the *Fragroea oxphylla*, of the *Lojuniaceae* order, possessing no extra-nuptial nectaries, have 99 per cent of injured flowers, done by the carpenter bee (*xylocopa*). Another kind, *Fr. crassifolia*, has a few nectaries, on which Mr. Burck found only 70 per cent injured. But *Fr. littoralis* has more such nectaries, and only 40 per cent injured. Dr. Burck remarked, moreover, that a carpenter bee which had cut open 20 or 30 blossoms of the *Fr. oxphylla*, and tried *Fr. littoralis* in the same fashion, had to give up at once and enter the flower on account of the ant-guards, though the three kinds of *Fragroea* resemble each other in shape, size, and color. Several such plants even provide their protectors with lodging, in shape of a recurved ear-shaped booth, affording shelter to these ants. Very often they also furnish these soldiers with ammunition—bread growing out at the flowers, having an albuminous and nutritious substance.

*Thunbergia grandiflora* more liberally feeds quite a number of ants the year round with such aliments; consequently the carpenter bee never approaches the outside of these flowers, but is obliged to look out for its business, and take the natural way.

PH. J. BALDENSPERGER.

Jaffa, Syria, Jan., 1892.

From Gleanings.

### Contraction.

ITS THEORY, OBJECT, AND RESULTS.

SOME years ago, at a convention in Chicago, I was sitting talking with E. J. Oatman before the opening of the session. I told him I would give a good deal to know of some way to prevent swarming when working for comb honey. A little to my surprise he replied,

"I would rather have every colony cast a prime swarm." Then putting his hand to one side of his mouth, and speaking in a very low tone, he said, "The secret of it is to hive each swarm on four frames, and let them store for all they're worth, and then double up in the fall." That was the first I had heard of contraction.

Contractionists have been a good deal misunderstood. Some of the theory is easily understood. Suppose a queen is capable of keeping seven frames full of brood. It seems very easy to understand that, if the colony of that queen be kept in a hive of six frames all the year round, when the harvest comes, if the queen keeps the whole six frames filled with brood, the bees can have no help for it but to put all their surplus in the supers for want of any other place. Without taking time to give reasons, let it suffice to say that, in actual practice, a six frame hive all the year round is a failure, and no genuine contractionist stops his theory in that bound. Yet that is about all the idea a great many seem to have of contraction, that it simply means to keep the room for brood rearing restricted.

As Doolittle has so vehemently urged, the most important part of contraction is expansion. Use all means to have as strong a force as possible at the beginning of the harvest, and no six-frame hive will do for that. Then, when the harvest commences, limit the room in the brood chamber, and that is the contraction of contractionists.

Contraction or no contraction, few will question the wisdom of getting the strong force ready for the harvest. Beyond this there is room for difference in opinion. Crowding the queen awakens the swarming impulse, unless, indeed, there can be awakened such a greed for storing that queen and all hands may turn their attention in that direction. Is there not naturally a tendency that way in any heavy harvest? Still there can be no question that unlimited laying room tends to discourage swarming, and hardly more question that a colony that never had the desire to swarm is the better for storing, other things being equal. So, on the whole, it is probably right to set down the tendency to swarm as a pretty serious objection against contraction.

"Contraction stops raising a horde that will be too late to be of service in the harvest, and will help consume that harvest after it is gathered." I confess I have been gradually losing faith in that till I have come to the point that I do not believe it at all. Mind I don't say that I know there is nothing in it, only I don't believe there is. The argument is something like this: Suppose the harvest stops July 15.

It is clear that all eggs laid in the 21 days next preceding July 15 will raise bees that can not touch that harvest; and as workers do not take to the field till 16 days old, we can add that 16 to the 21, making 37, so there's no use in having the queen lay after June 18, which is 37 days before July 15. But, is it true that bees do not become field workers till 16 days old? Although that may be what ordinarily happens, is it not governed by the needs of the case? I have seen bees five days old carrying in pollen, and I suspect that those same bees might have been kept from field work till they were much more than 16 days old. Even if they do not go to the fields for 16 days, they can do housework during that time and allow just that many other bees to go, that but for them would be obliged to stay at home. But, theoretically, there ought to be a gain on that harvest, to stop the queen laying to her full capacity 21 days before the cessation of the flow; for during that 21 days none of the eggs will hatch into bees, and it costs honey to feed the brood and bees to nurse it, which bees might otherwise be at work in the field. You see that the argument that bees may work in the field before 16 days old works in favor of contraction at this point.

But then comes the question: "If the queen is limited at this time, will it not work against the future prosperity of the colony?" When I have practiced caging queens, time and again my assistant has insisted that this colony and that colony had swarmed, when I knew that it was nothing but the rapid depletion taking place without any young bees to replace the older ones that had worked themselves to death. Will not such colonies continue to be weaker?—weaker for winter? weaker for the next spring?

But for all that I have said, contraction may be right and I don't think theory would have made me give it up. I had the theory all straight and expected good results from it; but somehow the bees were so stupid they didn't seem to see the advantages I was offering them. Facts are stubborn things, and I don't understand now why my theories haven't worked better. I don't understand why, last year, I didn't get as much from two colonies united at the beginning of the harvest as I had reasons to expect from the same two colonies if they had been kept separate.

I know that, in all my attempts at contraction however varied, I have not done as well as when I allowed each colony to have ten frames all the year round. I may as well say here, by way of parenthesis, that I don't believe I want larger than eight-frame hives, but I can't take time

just now to explain. The difference in seasons is so great that it may account for all, but I doubt it.

Then there are those two miserable Frenchmen down at Hamilton, allowing their queens to lay all over creation, and yet getting big crops. True, they work for extracted honey, but they have it stored in supers and don't disturb the brood-nest. I read also of the big crops harvested in France, in the Layens hive with its 20 or more frames, and nothing like the labor given to the contraction system.

To sum it up, contraction makes more work and I can't feel sure that it makes more honey. I am an expansionist, and it's only fair to say that all true contractionists are; but when it comes to contracting down to any less space than I feel, to say the least, that I am in doubtful company.

C. C. MILLER

Marengo, Ill.

From British Bee Journal.

#### A Handy Wax-Extractor.

**T**HROUGH the death, on New Year's morning, of my father who was a bee-keeper for the last twenty years, I have come in possession of the last two volumes of B.B.J., his hives and bees, and, as I have not seen any mention of a cheap and efficient wax-extractor, I send you particulars of one I made in the fall of 1890, which, in my opinion, and also experience, is very handy wherever there happens to be a boiler in the house. It is after the principle of Professor Gerster's, and consists of (1) a perforated zinc basket, (2) a shallow milk-dish, and (3) a stand made out of a ring of hoop-iron, with three legs attached to it (or three bricks will do as well).

After sitting the stand inside the boiler, I run water in till it is on a level with the top of the stand, then place the milk dish (with a little water in it) on the stand, and, having filled the basket with the combs broken in small pieces, insert it inside the dish, cover up with the lid, get the water to boil, and let the steam do its work, refilling the basket from time to time as required. Wire handles may be affixed to the comb-basket to lift by.

The wax comes down nice and pure, and of a pretty color, while the dross can be flung aside, and the basket refilled. It acts all the quicker when the combs are not pressed or squeezed too solid, the steam getting the more readily to the centre of the mass.

I have not given any measurements, as these will depend on the size of the boiler to be used. Should you approve of this method of ex-

tracting, and think it would be of any use to cottagers and others in the bee busines, I shall be very glad to see it explained in your valuable Journal, that all interested may have the benefit.

—T. H. KERR, Sanquhar, N. B.

### Bee-Keepers' Inventions.

HERE is no branch of agricultural industry that has furnished a much larger number of inventions than the beekeeping fraternity, and very few of them have grown rich by their inventions. The very first and foremost in the ranks of American inventions pertaining to bee-keeping was L. L. Langstroth—his inventions, the moveable comb holding frame made it possible to perfectly control the interior of a bee hive, to govern the bees in their inclination to swarm and to take honey as it was stored either as comb honey or for extracting purposes. But from one cause and another Mr. Langstroth never reaped a tithe of what he should have received for the valuable invention he gave to the world. He opened up an extensive trade for hives and sections, and his neighbors who took advantage of his inventions have grown rich, the inventor is left penniless in his old age. \* \* \*

The patent laws, like any other good law, may be swerved so as to seemingly aid fraudulent and unworthy ends, but we believe that in a great many instances the fact that one may be rewarded for inventive effort has quickened inventive genius and given to the world labor saving devices that would never have seen the light but for our patent laws. We know of one publication that never misses an opportunity to speak of patent hives as something to be shunned. Had that publication been in existence at the time of the introduction of the Langstroth hive it would undoubtedly have warned the public against investing in the device, probably consigned the invention to outer darkness and oblivion. With the Langstroth hive, the extractor, the comb foundation mill, the various sorts and sizes of comb section and the many devices to facilitate the production of and handling of honey, the bee keeper of to-day is away in advance of the bee-keeper of 1850, and he is very much indebted to the many enterprising inventors in the line of apiarian supplies, whether they applied for patents or not. It is possible for bee-keepers to materially aid those inventors by purchasing whatever of supplies they may need from such dealers as are at least friendly to the inventor and patentee, and in that way show some gratitude and a desire to keep in kindly remembrance those heroic men who

risked their time, money and inventive genius for the benefit of the beekeepers of to-day. We would advise every bee-keeper who has not already a revised copy of Langstroth on the Honey Bee, revised by Dadant, to at once secure a copy. Something of the purchase price will go to the inventor who gave us a patent moveable comb bee hive, and at the same time the purchasers will secure the very best work on apiculture as well as one of the latest.—Rural Californian.

From "Gleanings."

### Wax-Melting.

WHY FOUNDATION IS MILKY IN COLOR.

THESE are some who think steam makes foundation milky, and some that heating hot injures wax. Now, steam, if not used right, will make poor foundation, and heating hot will spoil wax; but wax heated in water cannot be heated too hot, and steam used rightly increases its value. When melting wax, if steam is used direct, be sure to let all boil together (water and wax) *furiously* for 15 minutes. Then let it stand five hours, and the wax will be perfectly clear—so clear that you can see to the bottom of a dipperful. There is now no water with the wax. If the wax is dipped immediately over into the dipping-can after melting, or if the wax is not heated hot, but only enough to just melt it, the wax will be milky, and foundation made from it will look as though full of sand. At our State fair there was 150lbs. which we clarified for a bee-keeper, and it took the first premium. It certainly would not if it had been sandy. Every one who has rendered wax is acquainted with the refuse on the bottom of the cakes. Some of it is loose, and is easily scraped off. This is in the same condition that the whole cake would have been if it had been heated only just enough to melt, and given a good stirring. If you ever have a cake of wax in this condition, to remedy it put the cake in some water and heat to the boiling point, and boil hard for 15 minutes, then set off the stove, disturbing it as little as possible; cover up so as to keep in a melted state as long as you can. Let it stand for 24 hours, when you can take off a cake of wax just as good as it ever was. Save all the scrapings from the bottom of your cakes, and try this. You will get enough wax from them every year to more than pay for *Gleanings*.

I wonder whether those who say steam injures wax have melted much that way. We rendered about 1,000 lbs. of wax from old combs this last year, and challenge any one to show as nice a lot. It was rendered by steam at a pressure of 80 lbs., blowing directly into the water containing

the combs. I don't know of any way to take wax that comes to us, that was rendered in iron utensils, which make it yellow, unless it is the one of thoroughly boiling it in acidulated water. The acid combines with the iron, and sinks to the bottom with the water, leaving the wax free from it, which made it dark in color.

One thing I should like to correct. The acid does not carbonize or burn the organic matter, but combines with the iron, etc. that is in the wax, also with the water, making it easier for the water to soak into the impurities. The hotter the water and wax the more easily the refuse will settle. In rendering old combs, if we could use something in the place of water that would soak up the cocoons so as to make them heavier than wax, the process of getting the wax from the combs would be very simple.

I have used water and acid, half-and-half by measures, on old combs, and have succeeded in getting all the refuse cocoons and every thing else to settle; but on heating to get the wax to rise, the refuse would come to the top, caused by the steam from the boiler condensing with what water was there before, and making the refuse lighter. I now have another idea in my head to try. It is to wash out the wax while all is boiling hot. I believe I have something that will work, and something that every bee-keeper can use.

F. A. SALISBURY.

Syracuse, N.Y., Jan. 6, 1892.

[So far as our experience goes you are correct, although you are the first one to discover the plan to us. We may add, incidentally, that any foundation, after having been rolled, that is milky, instead of yellow and transparent, may be brought to the latter condition by exposure to the rays of the sun before a window for a few minutes, or by exposure to artificial heat. Any foundation that is used for exhibition purposes can thus be very much improved where otherwise it might pass for a second grade.]

#### Bruce Bee-Keepers' Association.

THE Spring meeting of the Bruce Bee-Keepers' Association will be held at Edengrove, on Thursday, March 10th, 1892, at 10 o'clock, a.m. All bee-keepers in Bruce will be benefited by attending.

ARCHD. TOLTON,  
Secretary.

Walkerton, Feb. 20th, 1892.

I have bought the dies belonging to the D. A. Jones Co. and will keep in stock, until my merchandise is sold, Perforated Queen Excluding Metal. Prices according to quantity ordered and the amount of waste.—E. T. STRANGWAYS, Beeton, Ont.

From Bee-Keepers' Review.

#### Fellow no Advice Blindly.—Get Plenty of Supplies Early.—Advantages of Spring Protection.

R. C. AIKIN.

SINCE you desire that I tell the readers of the Review just how I manage an apiary from spring till fall, I will endeavor to do so. But I feel 'tis necessary to use the first article mainly as a prelude, for, by so doing, the reader will better understand what follows, and at the same time I shall be able to condense, and deal more directly with the facts to be discussed.

Don't forget that an apiary won't always be "just so." Where is the apiarist—though he be old in the business—that has had all the conditions and management just the same for two seasons? Apiculture is a kaliedoscope; each season requires a management peculiar to itself. So I want each reader to remember that, no matter how sound may be the principles or system I may set forth, those principles must be applied according to environments, the peculiar needs of the season and the ends to be obtained. Don't attempt to follow any man's written or oral rules, verbatim. If you do, failure is almost certain.

The apiary that has been properly cared for in the fall will not need the same care in the spring as the one that goes into winter in poor shape. Our bees are by no means in proper shape now, (Dec.), for the stock was handled the past season by other parties, we having had possession only since Nov. 1st. Some are in the cellar, some on the summer stands unprotected. I would prefer all out doors, packed in chaff, with stores to last till May 1st, *without fail*. Had we had possession of the stock the past season, the bees doubtless would be so fixed now.

What we do from fall to spring has much to do with how we do from spring to fall. So now, (Dec.), we are just maturing plans for next spring and summer.

The questions that come up now, are, whether we shall produce comb or extracted. We shall do both. However, I believe that the man who can produce a good article of comb honey, can also produce the extracted; but there are many exceptions when the rule is reversed, so we shall talk from a comb honey standpoint.

We will purchase our supplies, ready before the work comes on in the apiary, but we must decide how many hives, sections, and supers we will need. We may not need any, and we may need a whole lot, so the best way is to buy a whole lot, and be on the safe side. We

don't count ourselves safe with less than four twenty-eight-section supers to each colony, spring count, or even more than that. Don't say 'tis too many, but read on until you get our whole plan.

February and March are usually disagreeable months for out-door work, so we aim to do most of our shop work during those months. We will put hives and supers, together, fill the supers with sections, and have them all piled up, just ready to put on the hive.

Now just a few points on the matter of protection. Since this climate affords so much sunshine, we prefer the hives to point east, while packed for winter; thus, the entrance is shaded in the afternoon, and tends to prevent flights late in the day when many bees would be caught out in the cool evening air; besides, the afternoons are more changeable than the forenoons.

This chaff protection—or however protected—serves several purposes. It prevents robbers nosing around cracks and joints, so it does much to prevent robbing. Again, it prevents the sun shining directly against the hive, consequently it does not admit of so sudden a rise in temperature, making the flights of bees more gradual, avoiding to some extent, those sudden bursts of flight which often almost entirely depopulate a hive for the time being, if it does not result in absconding. But the greatest gain of all, is the gain in brood rearing during the spring. The bee keeper, to succeed, must keep ever "pecking away;" not by jerks and jumps, but regular steady work; so, to get good results in brood rearing, we want steady, regular work. This cannot be obtained where a colony in exposed to the changes of the weather. When packed the heat absorbed by the chaff keeps a more regular temperature, and brooding goes on without check; hence all colonies are better protected until they are strong enough to occupy the entire hive and care for all the brood the queen can supply.

Having the stock so protected, we have but little work to do in the apiary till towards May. Occasionally, however, we go through the apiary when the bees are flying freely and look for signs of robbing. Should any colony show signs of being robbed, we close the entrance so but one or two bees can pass abreast. Occasionally a colony will be queenless, and such must be protected from robbers until they can be united with others. It does not pay to keep a queenless colony until a queen can be reared in the spring. The honey consumed by a queenless colony at that time of the year, is worth more in some other colony being converted into bees; or saved for feeding later.

Some time near the latter part of March or first of April, being guided as to that by the state of the weather and the apparent condition of the bees, we examine each colony to learn the condition of each one, as regards queens and amount of bees. Those that are queenless we unite with such colonies as have but few bees, and all are again snugly covered up, and a record of the condition of each colony is kept.

This brings me up to the time when spring work in the apiary begins in earnest, and soon our next we will enter more into the details of spring management.

From Herald.

#### Chinese Insects that Produce a Wax Much Used in Candle Making And Other Industries

"THE most interesting article of all the many curious things which enter into the trade of China is "insect wax," writes Minister Denby, from Peking, to the Department of State. "This product, sometimes known as "white wax," is obtained in western China, not far from the frontier of Thibet. It is gathered from a tree called by the natives the "crackling flea tree," from the popping of its branches when burned. The tree is an evergreen and in the spring it bears lusters of white flowers, which are succeeded by fruit of a dark purple color. Botanists have classified it as "*ligustrum lucidum*." Early in May numerous brown, pea-shaped scales appear on the bark of the boughs and twigs. These upon being opened, are found to contain a mass of small animals, resembling flour in appearance, whose movements are almost imperceptible. The animals are the larvæ of the white wax insect, which owns the scientific name of "coccus pe la." People gather the scales and carry them to the prefecture of Chia-ting, which is the centre of this industry. For the journey they are wrapped in packages containing about sixteen ounces each. The utmost care is taken to protect them from heat in order that the larvæ may not develop prematurely.

"The city of Chia-ting stands in the midst of a plain which is an immense rice field. The plats of ground into which this vast field is divided for purposes of cultivation are edged with from four to twelve feet in height, bearing numerous sprouts upon their gnarled heads. These stumps resemble at a distance pollard willows. The trees, however, are a species of ash, and are called by the Chinese "white wax trees." Beneath their branches the white wax scales are suspended in small packages wrapped in leaves, about twenty or thirty scales in each

package. Holes are punched in the leafy wrappings, and the insects on emerging from the scales creep up the boughs to the leaves of the trees, among which they remain for two weeks. At the end of that time they crawl back to the twigs and branches, on which the females deposit their eggs and the males excrete the substance known as white wax.

"The first appearance of the wax on the under sides of the boughs and twigs resembles snow, and it gradually spreads over the whole of the branches to the depth of a quarter of an inch. At the expiration of an hundred days from the placing of the insects on the trees the deposit is complete. The branches are then cut off. As much of the wax as possible is removed by hand, but to secure what remains the branches are afterwards boiled. This boiling destroys the eggs, thus making necessary the bringing of fresh scales the following year from another locality, as above described. A pound of scales, it is said, will produce four to five pounds of wax.

"The wax scraped off is put into boiling water, where it melts, and rising to the surface, is skimmed off and put into molds. Here it solidifies and the work of manufacture is complete. The insects, which have sunk to the bottom of the pot, are pressed out, and, when the wax has all been extracted from them, are fed to the pigs. A ton of the wax is worth at Sharghai, about \$1,000.

A tree from which the branches have been removed, is not available for productive purposes until the third year following. If the wax is left on the tree the male insects buried under it undergo a metamorphosis, emerging with wings in the autumn and flying away.

"This white wax is a substance of great utility in China. It melts only at a very high temperature, 160 degrees Fahrenheit, and is chiefly employed to cover candles made of animal and vegetable tallow to prevent them from burning too rapidly. It is used in some localities as a sizing for paper and cotton goods, a glaze for silk and polish for furniture. Also it is utilized in Southern China as a polish for stone ornaments. Immense quantities of it are shipped from the ports of the upper Yang tse in junks.

"The introduction of foreign kerosene, now so universally used in China, has had a discouraging influence on the production of "insect wax." Mineral oil in lamps affords a cheaper light than tallow candles. It is possible, however, that a use for the product may be found in other countries."

To Our Subscribers.

WE have either adopted the clumsiest form of mailing our journals or else our explanations of it in late issues are not understood. Look at your BEE JOURNAL. This issue is No. 307. Look at the list given below. If the number of your wrapper in front of your name is less than 307 you are behind in your subscription. If it is greater than 307 you are paid up to the printed number. For example: 313 will be issued 1st June, '92, 319, Sept. 1st, '92, 327, Jan. 1st, '93, and 332 the last number of vol. 8. Any subscriber finding his number less than any on the appended list, owes for two years. This is surely long enough credit.

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A bound volume of Clark's Birdseye View of Bee-Keeping mailed on receipt of 10c.—C. B. J., Beeton.

C. P. DADANT says that sections open on three sides are the coming style. They can be so arranged that the tops are entirely closed—that is, the closed sides being on top. This may be some advantage to those bee-keepers who prefer to have their colonies fill only one tier of sections at a time. There is another class who like open-side sections, and this three-way style will accommodate them; and then, once more, these sections can be used like the ordinary, with only tops and bottoms open.—Gleanings.

# THE CANADIAN BEE JOURNAL

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**BEETON, ONT.**

## EDITORIAL.

Thus far the prospect for a big honey crop next year is excellent. The deep snow which covers the ground in the northern localities will preserve the clover better than for years gone by. The plentiful warm fall showers left it in an excellent condition when winter set in. Those who make preparation in time this year will be wise.

\* \*

The CANADIAN BEE JOURNAL would like to have suggestions from those who pretend to be experts in the business, in reference to the various ways of staging honey and putting it on exhibition, with the view of making it as attractive as possible, not only for exhibition purposes, but also to increase sales for both comb and extracted. Thus far, Canada has led the world in honey exhibits, not only in quality but in quantity, and has set an example which is fast being copied by others. It is useless for any one to think that they can create a demand by exhibiting a few pounds of extracted and a few sections; quantity has much to do with its attractiveness as well as quality, and small packages are preferable. Why, if the bee-keepers of the United States would unite they might have a mountain of honey on exhibition at the World's Fair that would astonish the world. We, Canadians, are all going over to have a look at you. If you do not make an exhibit that is creditable to

you we will give you a piece of our mind.

One more issue<sup>\*</sup> and Vol VII will be finished. Our issue of April 1st will be No. 1 of Vol. VIII, whole number 309. For the past year the C. B. J. has had a hard struggle for existence, not *per se*, but the losses in the other branches of the business carried on by the D. A. Jones Co. clung to the publishing department like barnacles on a vessel. Since the new syndicate took charge the Journal has been published on time with the exception of one number which we held back to give a full report of the O. B. K. A. After being printed it takes a day to fold and two days to trim, address and mail. Subscribers at a distance and many of those in adjoining counties cannot get the Journal for at least three days after mailing, owing to peculiarities in the mail. Some towns only a few miles west of Beeton, geographically speaking, receive their mail from Toronto, we send to Toronto to be forwarded and thereby lose a day. Despite the many disadvantages under which the C. B. J. labored, our subscription list has vastly increased. We will add a colored cover in April, we are arranging for subject matter, and we will, bar accidents, go to press on the 1st and 15th of each month. Notwithstanding the utmost care on our part Journals will get lost in the mail bags—wrappers and names will rub off and subscribers become wearied and disgusted with a Journal—always behind, and sometimes lost. We want this stopped. If you do not get your Journal within a reasonable time after the 1st or 15th of each month, drop us a postal card. We will remail the missing number or any back number. We keep an office employe for that purpose.

\* \*

One of our customers has some granulated comb honey which he would like to liquify if possible, and would like to know what is best to do with it. He proposed sending it to us to be liquified. Now we must acknowledge that that is a contract that we are not prepared to take just now; but by the way, is there no temperature that would liquify granulated honey without melting the combs? We once attempted to liquify granulated comb honey by putting it in a dry kiln,

at a temperature of about 125°; after turning on the live steam, and setting the stop cock so the temperature would remain at about the right point we commenced the experiment. The night fireman changed the gauge, thus allowing the steam to go on in full force, and on examination we found the honey liquified comb and all with the sections floating around on top. A dry kiln makes one of the best places for liquifying extracted honey, as tons of it can be placed in at a time and liquified at a very low cost. If granulated comb honey can be liquified, it would require a very even temperature. We think the room would have to be heated by steam, and a thermometer be placed there to regulate the temperature. Can any of our friends tell us if it is possible to liquify honey in the comb without destroying the comb?

#### What Size of Sections are Best Adapted for Marketing?

**A** GOOD many are advocating a uniform size of sections in order to facilitate the marketing of comb honey. We are surprised that more do not favor thin sections, which would doubly stimulate the marketing of comb honey. People now a-days go largely by appearance, and as a thin section to the ordinary observer appears to be as large as a thick one, if we were raising comb honey exclusively for profit we would have nothing more than one and one-half inch, and, as we have before prophesied, that thin sections will yet take the lead, and be almost exclusively used. Of course it may take sometime to educate the people to this fact, but it is gaining every year. Bees will cap over thin sections in about one-half the time they will thick ones. It is whiter, as it is a shorter time in the hive. If the comb is placed where the light refracts on the opposite side honey looks clearer in the thin than in the thick sections. They will ship much better, as the bees will attach a thin comb to the sides of the section much better than they will a thick one. If one-half pound of honey is attached as much to the section as one pound it is readily seen there would be a difference in the breakage, if roughly handled.

The honey is also thicker in thin sections—this has been proved time and

again by careful experiments. Every time the bees put thin nectar from the flowers in a deep cell it thins the honey to the bottom of the cell, and it can be easier seen how much longer it would take to evaporate honey one inch deep than one-half an inch, and how much more heat it would require. Some argue that it takes so much more time to do the capping, and consequently loss of honey to produce the wax. This is a mistake, as bees will gather, store, ripen and seal as much or more honey in thin sections than they will in thick ones. We are about convinced from experiments that they will produce more pounds of honey in thin sections than in thick ones, and it will retail for 25 per cent. more per lb. than thick sections, as it is sold by bulk or piece. It will sell 50 per cent. faster than the thick sections, because you can retail a section for 15 instead of 25 cents. You can retail a half-pound section at 15 more readily than a pound at 25c.

#### A Bee-Keepers' Convention at the World's Fair.

**I**T is high time that an effort was being put forth to place the scheme in proper shape. Some one has to take the initiatory step in this matter, so we will nominate T.G. Newman, editor of the *American Bee Journal*, to be Chairman of the Managing Committee, and would suggest that he select the necessary assistance, and organize a Committee and go to work at once.

Invitations should be sent to as many bee-keepers as possible, and to all the Bee-Keepers' Associations in the various countries. It may be necessary to have the Convention held at separate times, as the best time for American and Canadian bee-keepers would be after the honey season is over. If that should be too late to meet the views of our British, German and other foreign bee friends, it might be desirable to have arrangements made to meet their wishes as far as possible. In fact, if they accept the invitation the American and Canadian bee-keepers are, and we are sure will be, willing to sacrifice self interest, and make every effort possible on their part to meet the views of our foreign friends.

We would also suggest that a number of samples of honey from the various countries be on exhibit, and that samples of all the appliances from the various

countries be exhibited properly labeled, to indicate what country they are from. We would have clay cylinders from two to three feet in length from Cyprus; we would have cylinders made of wicker work, coated on the outside with camel chips from some parts of Palestine, and from other parts we would have clay cylinders; from parts of Africa we would have a wicker work covered similar to those in Palestine, only a much thicker coat, far better constructed, as the camel chips are mixed with water until it becomes a tough paste, which is sometimes put on with moss or grass mixed through it which makes it, very strong. The native hives of Africa, India, and many other foreign parts would be very interesting for many to look at them. Can we not have a limb from a tree with combs *apis dorsata* hanging on it?

How very interesting it would be if those foreign countries would exert themselves to send us comb and bees preserved in alcohol, of all the various races, and give us all information possible connected with them; and no doubt Mr. Benton could make suggestions that would be of great value to the Committee, and if he does not go in search of foreign races we would suggest by all means that he be one of the Committee, as he would be able to write to many foreigners in their own language, and so explain matters to them that they could understand much better than if written by inexperienced persons in Eastern customs and habits.

Then again, would it not be possible to have a colony of *apis dorsata*, and some of the bees from Timor and Papua and other foreign parts on exhibition. How interesting it would be—what a stimulus it would give to bee-keeping—many thousands more would visit the exhibition to see these new races at work there? If these foreign races are to be had, and there is no one to be got as well adapted to go in search of them as Mr. Benton, he should be despatched at once. If this course is to be taken why do not the bee-keepers of the United States wake up and speak as with one voice to the proper authorities to have these preliminaries attended to? No doubt if Mr. Benton went East he could secure many other valuable things to be placed on exhibition; and if the government of the United States would

bear the expense they would be doubly repaid by the results of such an expedition.

We will perhaps have more to say on this subject in a future issue.

We have just received E. L. Gould's catalogue, which seems more complete than former ones. We have also published a full catalogue for Messrs. Wm. Stuckey, of Grand Valley, and W.R. Sterling, of Rondon. Both gentlemen appear to carry full lines, and their prices seem very reasonable. Mrs. Jennie Atchely, of Floyd, Texas, has just sent her neatly gotten up twelve page catalogue.

A lady bee-keeper has just written us that she has —lbs. of honey on hand, very nice basswood that she would dispose of. The sample she sent is very good, and the price she asks, 9c., is very reasonable. Any one requiring any at the above price we will have it forwarded to them by her. She is a widow with a large family to support, and any one who could take her entire crop or part of it would be doing her a great kindness.

I have bought from the D. A. Jones Co. the following sizes of sections, which I offer for sale at \$1.00 per M. F. O. B. in Beeton. All of them will fit the 8 or 9 frame Jones' Hive—Double slotted:— $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ,  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ,  $4\frac{1}{2} \times 4\frac{1}{2} \times 2$ ,  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ,  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ,  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ . E. T. STRANGWAYS.

I have for sale the following sizes of sections made last August by the D. A. Jones Co. I will sell the lot, or I will sell any part of it. They are made from the best white basswood. I want an offer for the lot or for any size in the list:—Single slotted:—1,000  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ ; 1,000  $3\frac{1}{2} \times 4\frac{1}{2} \times 7$  to the foot; 1,000  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ ; 5,000  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ ; 2,000  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ; 9,000  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ ; 1,000  $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ . Double slotted:—9,000  $4\frac{1}{2} \times 4\frac{1}{2} \times 7$  to the foot; 8,000  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{8}$ .—E. T. STRANGWAYS, Beeton, Feb. 15, '92.

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**: TO :**

**Ontario Bee-Keepers.**

INTENDING exhibitors of Honey at the Chicago Exposition, will kindly place their Extracted Honey in tin jars, as the Commission intend shipping the Honey in these cans to Chicago. The Dominion Government will furnish glass jars in which the Extracted Honey will be shown. This will secure safe transport, and Exhibits will reach Chicago in much better shape.

**NICHOLAS AWREY, M. P. P.,**

Ontario Commissioner World's Columbian Exp. b14 tf.

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# To Damn With Faint Praise

read at the last meeting of the Mo. State Bee-Keepers' Association.  
**The Bee Keepers' Review** comes nearer to my ideal of what a Bee Journal should be than any other as yet extant on this continent. It is not without its faults, but they are mainly those which time and experience will correct. Mr. Hutchinson does not get offended when they are pointed out, but courts criticism and hails correction, deeming it a friendly act to point out an error in opinion, expression or grammar. He is both courageous and courteous. He is willing to give all a fair hearing. An accomplished bee-keeper; a natural born editor, who takes to literary work as a duck takes to water; a man with the enthusiasm of both his callings—bee-keeping and literature. I see in Mr. Hutchinson the rising star of bee-journalism: am glad he is already so highly appreciated; and hope, as I believe, that his shadow will never grow less. In the BEE-KEEPERS' REVIEW we have the ablest, broadest, most intelligent, manliest and freest exponent of apicultural ideas that has yet appeared in the western world. These expressions of opinion are spontaneous, unbought, disinterested, and made from no other motive than the promotion of the greatest good to the greatest number of Bee-Keepers.

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