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THE CANADIAN BEE JOURNAL



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

VOL. VI, No. 4.

BEETON, ONT. MAY 15, 1890.

WHOLE No. 264

THE CANADIAN BEE JOURNAL

Devoted exclusively to the interests of the Honey Producer.

Seventy-five Cents per annum in Advance.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

STANDING ADVERTISEMENTS.

Time.	1 in.	2 in.	3 in.	4 in.	1 col.	page
1 month.....	\$2.00	\$3.00	\$3.50	\$4.50	\$6.50	\$10.00
3 months.....	3.00	4.50	5.50	6.50	11 00	17.00
6 months.....	4.01	5.50	7.00	9.00	15 01	25.00
12 months.....	6.00	9.00	12.00	15.00	21 00	40.00
18 months.....	10 01	15.00	20 00	25.00	40 00	75.00

Breeders' Illustrated Directory.

One-fifth column, \$8 per year; \$5 for 6 mos. All yearly advertisements payable quarterly in advance.

Condensed Directory.

Occupying one-half inch space, THREE DOLLARS per annum.

Transient Advertisements.

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

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

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 it will be inserted in our regular advertising columns. This column is **specially** intended for those who have poultry, eggs, bees, or other goods for exchange for something else and for the purpose of advertising bees, honey, poultry, etc., for sale. Cash must accompany advt. Five insertions without change, \$1.

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted will be charged accordingly. All advertisements received for THE CANADIAN BEE JOURNAL are inserted, without extra charge, in THE CANADIAN POULTRY JOURNAL.

THE D. A. JONES Co., Ld., Beeton, Publishers.

PUBLISHERS' NOTES.

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

THE JOURNAL will be continued to each address until otherwise ordered and arrears paid.

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt.

American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts.

Subscription Price, 75c. per Annum. Postage free for Canada and the United States; to England, Germany, etc. 10 cents per year extra; and to all countries not in the postal Union, 50c. extra per annum.

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

Communications on any subject of interest to the fraternity are always welcome, and are 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.

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 do not accept any advertisements of a suspicious or swindling nature, but our readers must not expect us to be responsible should our advertisers not do as they agree. They will find it a good rule to be careful about extraordinary bargains, and in doubtful cases not to pay for goods before delivery.

Clubbing Rates.

THE CANADIAN BEE JOURNAL and	
THE CANADIAN POULTRY JOURNAL	\$1 00
THE CANADIAN BEE JOURNAL and premium queen 1 00	
Both JOURNALS and premium queen.....	1 25

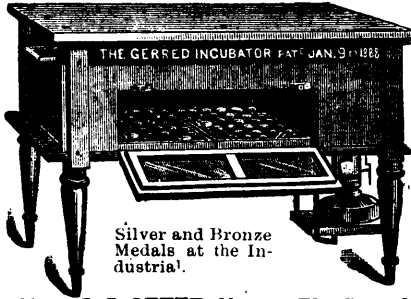
Job Printing.

All we ask is the privilege of an opportunity to estimate. Free use of all our cuts given to those who favor us with orders. Specimen sheets furnished on application.

ADVERTISEMENTS.

J. L. CORCORAN,
Stratford, Ont.

Breeder of Exhibition
BARRED P. ROCKS
White Wyandottes,
S. G. and Colored Dorkings
Imperial Pekin Ducks.
BIRDS FOR SALE AT
reasonable rates.
Eggs, \$3.00 per setting.



Silver and Bronze
Medals at the In-
dustrial.

Address **E. J. OTTER**, Manager **The Gerred Incu-
bator Co.** 90 De Grassi street, Toronto

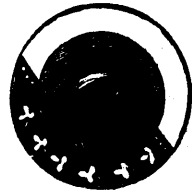
A. J. GORDON,
ST. JEROME, P. Q.

—BREEDER OF—

BLACK B. RED GAMES
(Heaton and Mathews Strains.)

At Montreal last winter I won first on cock;
third on cockerel; first, second and third hens;
second on pullet. Score from 89½ to 94. Eggs
\$3 per sitting of 13. Stamp for reply,
MENTION THIS JOURNAL.

**GOLDEN
WYANDOTTES !**



McKEEN'S STRAIN
Cannot be beaten. Scored by
Judge Bicknell, 92, 90½, 90, 89, 89

EGGS \$2 per 13

Stock for sale. Pekin Duck
eggs, Rankin's strain, \$1.00 doz
One of my customers, says
"Out of 112 G W eggs I had 12
fine chicks."

JOHN A. NOBLE, Norval, Ont



THOS. BARRETT,
Norfolk Poultry Yards,
BREEDER
AND IMPORTER OF
Langshans,
S. G. Dorkings,
S. C. B. Leghorns,
White Cochins,
Black Hamburgs.

Eggs in Season \$3 per 13 or \$5 per 26
BIRDS FOR SALE.

ANGUS, ONT.

W. T. TAPSCOTT

Has expended large sums of money in
improving his stock of



S. L. Wyandottes

Yet his prices are not advanced. Pre-
fer buying anything in the line of

WYANDOTTES

**LEGHORNS, COCHINS,
PLYMOUTH ROCKS,
MINORCAS, BRAHMAS,
B. C. R. G. BANTAMS
AND PEKIN DUCKS.**

+ x x x +

Send for his new Circular now
ready. Address.

W. T. TAPSCOTT,
MENTION THIS JOURNAL. **BRAMPTON, ONT**

EGGS, \$1.00 for 13.

- Light Brahmas**—Six yards. Fletcher, Duke of York,
Williams and Bucknam strains
- Dark Brahmas**—Three yards. Mansfield and Buck-
nam strains
- White Cochins**—Two yards. Lovell strain
- Partridge Cochins**—Three Yards. Williams, Booth
and Washington strains.
- Buff Cochins**—Three yards. Gold Dust strain
- Black Cochins**—Two Yards. Williams strain
- Langshans**—Three yards. Croad strain
- White Plymouth Rocks**—Four yards
- White Wyandottes**—Two yards
- Silver Wyandottes**...Two yards
- Barred Plymouth Rocks**...Twelve yards. Drake
Upham and Corbin strains
- Houdans**—Two yards. Pinckney strain
- White-Faced Black Spanish**—Two yards. McMil-
lan and McKinstry strains
- Rose-Comb Brown Leghorns**...Two yards. Forbes
strain
- Rose-Comb White Leghorns**...Two yards. Forbes
strain
- Single Comb White Leghorns**...One yard
- Single Comb Brown Leghorns**...Two yards. Bon-
ney strain

I make a specialty of furnishing eggs in large quantities
for incubators at reduced rates. Send for 1890 catalog.

E. H. MOORE, Melrose, Mass.

MENTION THIS JOURNAL.

**PARK
Poultry Yards
DUNNVILLE.**

C. H. McCREAE, Prop



After several years' experi-
ence and a large outlay of
money I have birds second
to none.

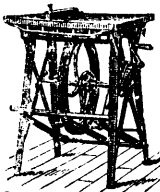
**S. C. B. Leghorns
and Black Minorcas**

The breeding pens should be seen to be appreciated. Eggs
and birds reasonable. Correspondence kindly solicited.

TABLE OF CONTENTS.

Alsike clover for Pasturage..... 78
 Artificial Honey and manufactured Science..... 80
 A host of Comments and Questions..... 86
 Artificial Increase..... 89
 Bee-keeping in N. W. T..... 79
 Brant bee-keepers..... 83
 Bottom starters in sections for safe shipping..... 88
 Bees chilled while gathering Pollen..... 90
 Controlling swarming..... 84
 Combs not so easily uncapped when the top bars
 are wide..... 88
 Destroying surplus bees..... 79
 Do bees hear?..... 88
 Discounts for large orders..... 91
 Extracting honey from cappings..... 78
 Extracting unripe honey..... 87
 Frames at fixed distances..... 89
 House apiaries..... 78
 Kent bee-keepers..... 83
 Keep the colonies warm..... 90
 Keep water at hand for robbing..... 91
 Making artificial swarms..... 86
 Planting or sowing for pasturage..... 78
 Painting hives different colors..... 84
 The secret of successful honey production..... 88
 Thick top bars..... 89
 Unripe honey..... 88

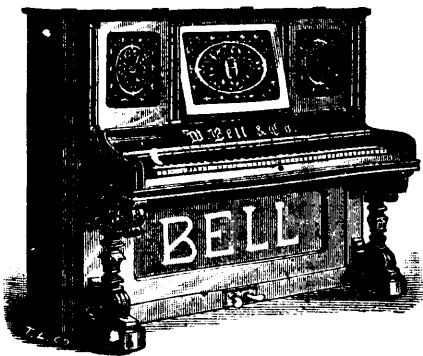
BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Charlton, N. Y., says—"We cut with one of your Combined Machines last winter 50 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2000 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. Adress W.P. &

JOHN BARNES, 541 Ruby St. Rockford, Ill. 21

BELL PIANOS



QUALITY, FIRST CLASS,
 TONE, PURE and BRILLIANT,
 DURABILITY UNAPPROACHED,
 CATALOGUE FREE.

W. BELL & CO.
 GUELPH, Ont

COOPS—We have on hand ready to ship quick, a large number of coops, sizes and prices as mentioned in advertisement in another column. The D. A. JONES CO., Ltd, Beeton.

WANTED.

AN

Experienced Bee-keeper

Right away to take charge of an Apiary in

MANITOBA.

Write, giving full particulars, wages wanted, etc, to

C. F. BRIDGMAN

MENTION THIS JOURNAL. WINNIPEG, MAN

AFTER HIWATHA.

BY SECOR.

HO! ye gleaners after knowledge
 In the field of apiculture,
 Stop a moment, please, and read this,
 Stop and read this advertisement.
 Send and get my creamy MONTHLY,
 (I will send three samples gratis).
 It contains the views of leading
 Bee-men on some special topic;
 Points out errors; makes you ponder,
 And abandon wrong ideas.
 If you'd march with those who "get there,"
 Send your stamps to "Hutch the hustler"—
 Fifty cents per annum only;
 Twelve Reviews for only fifty.

Address BEE-KEEPERS' REVIEW,
 W. Z. HUTCHINSON, Ed. & Prop. Flint, Mich.

Bee-Keepers Guide

—OR—
 MANUAL OF THE APIARY.

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

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



BEES AND HONEY

The Doves-tailed Strongest, Best and Cheapest BEE-HIVE for all purposes. Please everybody. Send your address to the Largest Bee-Hive Factory in the World for sample copy of Cleanings in Bee Culture (a \$1 illustrated catalogue of Bee-keepers Supplies. Our A B C of Bee Culture is a cyclopaedia of 400 pp., 6x10, and 300 cuts. Price in cloth, \$1.25. Mention this paper. A. I. ROOT, Medina, O.

Carniolan Bees!

Pleasantest Bees in the World, Hardest to Winter, Best Honey Gatherers.

In order to introduce not only the bees, but our paper, "THE ADVANCE"

We offer to anyone who will send us \$1.25, a copy of our paper and a nice Carniolan queen. The queen alone is worth \$1. Address,

THE ADVANCE, Mechanic Falls, Me.



Safford & Kisselburgh

Mountain Home Poultry Yards
STONE ROAD, - TROY, N. Y.

BREEDERS OF

Mammoth Light Brahmans, Laced and White Wyandottes,

Barred and White Plymouth Rocks, Black Minorcas, SCW Leghorns,

EGGS Per Sitting and a year's subscription to the Canadian Poultry Journal, \$2

MENTION THIS JOURNAL

S. C. W. Leghorns.

GREAT SUCCESS PAST SEASON.

12 Firsts and 4 Seconds, and 4 Special Prizes won at various fall and winter shows.

My Breeding Pen won the handsome Silverware

Given as a Special Prize at the

Ontario SHOW AT St. Catharines

For the best cockerel and five pullets. Eggs \$2.50 per 13. Stock any time. Send for Circular.

R. H. MARSHALL, DUNNVILLE.

Prices to suit the Times.

A FEW pairs of Silver Laced Wyandottes and a few Plymouth Rock cockerels for sale cheap. Brown White and Black Leghorns, White and Barred Plymouth Rock, White and Silver Laced Wyandottes. Eggs of any of the above varieties, or mixed, at \$1.50 per setting, or two settings for \$2.

WM. MOORE,

MENTION THIS JOURNAL. Box 462 LONDON, ONT

I have decided to go out of the pure bred poultry business, and devote my time, energies and intellect to the exclusive breeding of the highest type of

Mammoth BRONZE TURKEYS, and as an initiative in that direc-

tion I have selected a breeding pen from three famous yards in the U.S. heading it with the 2nd prize gobbler (Arthur II) at Detroit Jan. '90. A few sittings of eggs to spare at \$3.50. Address WILL A. LANE, Turnerville, Ont.

Poultry Netting & Fencing.

We can now furnish the best Poultry Netting at the following low prices for 2 in. mesh No. 19 wire in the various widths, in full roll lots (150 feet to roll):

19 GAUGE.				
24 in.	30 in.	36 in.	48 in.	72 in.
\$3.10	4.00	4.85	6.00	9.50

18 GAUGE.				
\$3.25	4.00	5.00	6.30	9.90

In less than full roll lots the price will be 10c s.f.t.

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

CONDENSED DIRECTORY.

Advertisements under this heading, occupying one-half inch space, three dollars a year

O J. PUTNAM, Leominster, Mass. has for sale several fine cockerels and pullets, B P Rocks, won 1st 2nd and 3rd on pullets, and 2nd on pen at Ayr Jan. 14 to 16 1890. Eggs \$2 per setting.

MENTION THIS JOURNAL

BIRDS, Parrots, Dogs, Ferrets, Cats, Monkeys, Rabbits, Bird Eyes, Goldfish, Song Restorer, Trap Cages, Distemper and Mange Cure. Wilson's Big Bird Store, Cleveland, Ohio.

CARNIOLAN QUEENS. After June 15 untested \$1.00 each, six for \$5.00. Tested \$3.00 each. I. LANGSTROTH, Seaforth, Ont.

POULTRY-MEN—Do not order your spring circulars or in fact any kind of printing until you have first asked us for samples and estimates. The D A JONES CO., Ltd., Beeton.

SEND your address on a postal card for samples of Dadant's foundation and specimen pages of "The Hive and Honey-bee," revised by Dadant & Son, edition of '89. Dadant's foundation is kept for sale in Canada by E. L. Gould & Co., Brantford Ontario CHAS. DADANT & SON, Hamilton Hancock Co. Ill.

W. COLE'S Black Minorcas. I have bred those birds for 5 years and they are as good as any in Canada, United States or England. 1890 pullets 94 94 94 94 94, 96, 96, 96, 96, cockerel 95 1/2. J Y Bicknell, judge. Eggs for hatching \$1.25 per 13. WM. COLE, Brampton.

HOLY LAND QUEENS. Home and imported raised a specialty. Bees by the pound and frame queens by the dozen. MENTION THIS JOURNAL. GEO D. RANDENBUSH 445 Chestnut St. Reading Pa.

\$1 WILL BUY a test d Italian or Heddon strain queen under 2 years old. \$1.25 will buy a tested Italian or Heddon strain queen under 1 year old. The Italians are mostly from one of Doolittles \$10 queens, and the Heddon strain from selected stock. Can ship at once. G A DEADMAN, Brussels, Ont

LOOK HERE!

IT will pay you before ordering your Supplies to send for our 1890 Price List of Hives, Supers, Foundation, Sections, Queen Cages, Smokers, Bee Escapes, Extractors, H. Knives, Shipping Cases, Bees, Queens, etc. Address

J. & R. H. MYERS,
Box 94, Stratford, Ont.

MENTION THIS JOURNAL.

\$4 LOOK! \$5

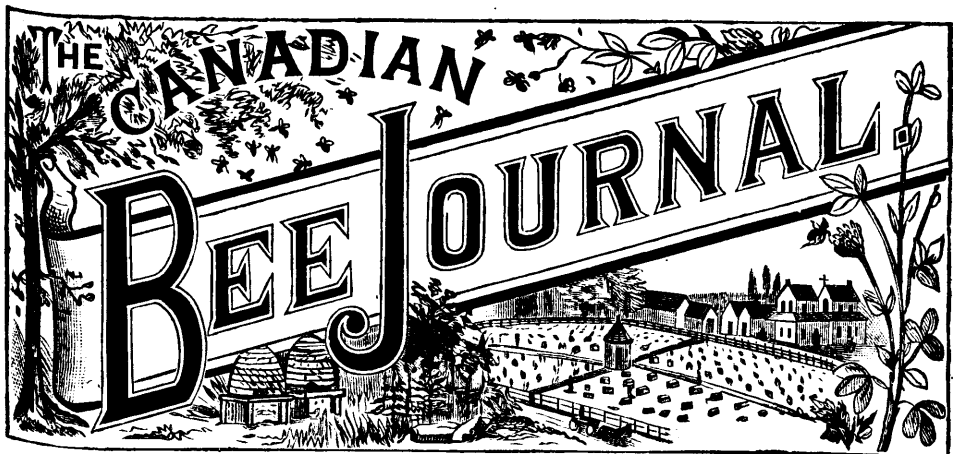
BEST and cheapest Bees 35 colonies of choice Italian and Hybrid Bees at from four to five dollars per colony in L Hives, in healthy condition. 5 per cent off on all orders accompanied by cash or part cash before the 20th of April.

LEWIS JONES, Dexter P.O.

THE BRIGHTEST!

Five hundred Golden Italian bees and Queens and the Reddest Drones. Very gentle; very prolific; good honey gatherers—working on red clover—and the Most Beautiful bees in existence! Took 1st premium at Mich. State Fair in 1889. Reference as to purity of stock, etc. of C. B. J. Sample of bees five cents. Untested queens, before June 15th, \$1.25; after June 15th, \$1.00. Tested (3 bands) \$2.00; selected, tested, (4 bands) \$3.00; breeding queens, (4 to 5 bands) \$5.00. Virgin queens, 50c; 5 for \$2.00. Safe arrival and satisfaction guaranteed. Canadian currency and stamps at par.

JACOB T. TIMPEL
GRAND LEDGE, MICH.



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

VOL. VI, No. 4.

BEETON, ONT. MAY 15, 1890.

WHOLE No. 264

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES, - - - EDITOR-IN-CHIEF.
 F. H. MACPHERSON, - - - ASSOCIATE EDITOR.

EDITORIAL.

WHERE are scores of subscribers to the BEE JOURNAL who have not responded to our request, and to that of the President of the O. B. K. A., to send in a list of the names and addresses of beekeepers in their neighborhood though we are receiving at the rate of several hundred names per day. As the pamphlets will not be ready for a short time yet, we again ask all who have not yet responded to do so *at once*. There are several of the Directors of the O. B. K. A. yet to hear from.

* * *

The golden rod will likely become the "National Flower of America." Seventy per cent. of the votes called for, were in favor of that flower as an emblem.

* * *

W. B. Carr, editor of the *Record and Adviser*, now published at London, Eng., has heretofore edited that paper from Liverpool. He has now removed to London, where the *Record and British Bee Journal* will in future receive his personal attention.

We have had no reports of swarms yet. The beekeeper who thinks he has the first should report it to the BEE JOURNAL.

* * *

The Detroit International Fair will be held Aug. 26 to Sept. 5, 1890. H. D. Cutting will be the Superintendent of the apianian department. Michigan contains no more honorable or straightforward man.

* * *

The Columbian Fair is a sure thing for Chicago, and 1893 will see it.

* * *

Perth county beekeepers met in Stratford last week, and we presume made arrangements to give the F. B. Inspector plenty of work. The Oxford association meets in Woodstock on the 21st May, for the discussion of the same question, and for general business.

* * *

A correspondent informs us that foul brood is very prevalent in Norfolk Co., but he does not wish his name mentioned. He says: "Beekeepers will have a happy time of it if the Inspector don't put in an appearance, and that very shortly." The writer of the above knows his plain duty in the matter, and he should at once notify the President of the O. B. K. A., giving the necessary information.

GENERAL

FOR THE CANADIAN BEE JOURNAL.

Planting or Sowing for Pasturage.

QUERY No. 259 is one of interest and importance. I, myself, believe now, that it rarely pays to plant for bee-pasture alone.

I went to considerable expense and planted out 1,000 Chapman honey-plants, and as far as I could judge from so small an experiment, taking into consideration the labor and expense of cultivating, the success of the trial was not one such as would induce me to try it again. Yet it *may* pay.

ALSIKE CLOVER FOR PASTURAGE.

I should make an effort to introduce alsike clover; if there is any source of supply sure, I believe it is this. I believe I am correct in saying that its roots go to a greater depth than white, and they are less affected by drought, and it yields more largely, and, I think, better honey. If it does not yield more honey than white, why do the bees forsake the white for the alsike, when within reach? If not a surer honey-plant, why do those in alsike clover districts secure surplus in years when those in districts where only white exists do not? Again, alsike clover pays as a farm crop on a dry or clay loam, *not* on sandy soil. Take Haldimand County as an instance. In townships where the composition of the soil is clay, the farmers look upon the crop of alsike clover seed, taking one year with another, as their best paying crop. The seed, to-day, in Toronto is worth \$6.90 per bushel. I am told on excellent authority that it also gives good satisfaction as pasture; some of the farmers around here have decided to sow it with red clover and timothy for hay. Up to the present time, no one here has sown it, and I have supplied farmers in the vicinity with enough seed for twenty acres. Unless something unfortunate occurs, I expect it to do so well, that in future I will not require to supply any more seed. This plant, therefore pays in two ways.

Sweet clover, I cannot speak for, but from what I have seen of it, I should say that when once put in, it will give but little trouble, and it may pay, if sown on waste land. Few, however, are situated so favorably for waste land as the querist.

This spring has surpassed anything I have ever seen for bees. They are hanging out today on several hives.

R. F. HOLTERMANN.

Romney, Ont., April 25, '90.

We think as does the writer of the

above, regarding alsike. Taking all in all we should prefer it ahead of anything else, as a honey-plant, considering at the same time, the commercial value as seed. As a source of honey-flow it seldom misses, and in cases where a good big field of alsike is within easy bee-range, the apiarist need have few doubts of having surplus honey, if the bees are ready to gather in the harvest. Two years ago, we got scarcely any honey from one apiary, while another one which was near a field of alsike clover, gave a very good surplus. We have found that light sandy soil is of no use for alsike. A field of about ten acres on high ground in this vicinity was sown three years ago, but came to nothing.

FOR THE CANADIAN BEE JOURNAL.

Extracting Honey From Cappings.

IN the C. B. J., of March 1, Mr. Alpaugh gave your readers his method of getting the honey out of the cappings. I see only one fault with it, that is: Every bee-keeper has not got one of those sun-extractors and a great many will not buy them, notwithstanding the fact that wax extracted by that method is superior to steam-extracted, and if I am not mistaken, there is less loss in extracting by the former method. For those who have not and do not care about purchasing a sun-extractor, I give the following method which I have found very successful. I use an ordinary milk-pan for holding cappings. As this is the cheese district idle milk-pans are plenty in the honey season. When the pan is full I set an empty pan on the stove, put a couple of blocks about an inch thick in the bottom, and set in the pan with the cappings, then fill up the outside pan with water. As soon as the cappings are heated sufficiently, to melt the wax, it rises to the top. When it is all melted set the pan off to cool, when the wax will form a nice thin cake, and the honey will not be damaged any more than if it had been granulated and then melted. Care must be taken not to let the honey get over heated and scorched.

J. W. WHEALEY.

Kintore, April 4, '90.

FOR THE CANADIAN BEE JOURNAL.

House Apiaries.

ARE there any house-apiaries in use in Canada? I have been wondering if they would not be worth a trial here, but I have never seen any reference to them in the

BEE JOURNAL. I believe that such houses are a good deal used in England. Any information you can give me on this point will oblige.

S. McG.

Lefroy, April 1, '90.

We can give you very little information of a practical nature in the direction you desire, and we cannot at the present time, think of any beekeeper in Canada who uses a house apiary, but there are doubtless some. If this item should catch the eye of any of those who have one, we would be glad of a description of the house in use, and how it suits. In England they are, as you say, a good deal used. The last number of the British Bee Journal contains a description of one which seems simple, and yet would, perhaps, be very effective.

"Each house, it will be seen, holds four hives. Entrances are placed as far apart as possible, and the hives can be worked on either the storifying or combination principle. The roof is hinged to lift up, the back opens outwards in two doors, thus giving plenty of 'elbow-room.' The inside is simply two long trough-like frame hives, and each stock is kept apart by division-boards. To those who do not wish to go to greater expense, I would recommend these houses, which, for the price of materials, do not exceed the cost of a weather proof single-frame hive. Size of each is 4 ft. long by 4 ft. high by 20 in. wide. Materials required to make one are: four corner-posts, 2 x 2, cross-beams 4 x 2, bottom and centre shelves—strictly speaking, the floor-boards—of $\frac{1}{2}$ in. jointed flooring: four boards, 9 x $\frac{1}{2}$ inch and 4 ft. long for hive sides. All the other wood of $\frac{3}{4}$ -in. jointed and beaded lining, with roof covered with canvas, and painted, to make all secure."

For THE CANADIAN BEE JOURNAL.

Destroying Surplus Bees.

GENTLEMEN of bee destroying propensities, I am ashamed of you. Twenty years ago you hollered till you split your throats, in favor of saving the lives of the dear little bees, the darling pets, the precious, darling, sweet, lovely, beautiful, little striped honey compugets. You called the man that killed bees in old gums, a mean, low, penurious, ignorant fool. You ridiculed him without stint, and nothing was too bad for him, and now, like the assassin, after gaining a friend in the little busy bee, you are ready to take his earnings and stab him in the back. You simply make me tired, in trying to justify yourselves by

comparing the murder of bees with that of animals. A calf never worked early and late, and not only fed itself, but you as well. Even the ox and horse who do work have to be compelled to do it, and be fed from your hand besides, and sometimes are balky at that, but the bee—Oh! aint you ashamed—the busy bee which toils from early morn—even while you are in bed—till the canopy of Heaven is enshrouded in darkness, I say the faithful bee that is the emblem of faith and hope, that is a living example worthy of your imitation, the bee, after it has earned your living for a whole year ahead, and its own as well, you, like a covetous coward, while the bee is nestled in the hive in the enjoyment of its own, you want even its life. If you can go out and brimstone these faithful little workers, and then come in to dinner and eat bread that they earned, I say if you can do it, I can't. And I don't call bees pets either. In fact there is no sense in your getting over-stocked with bees. A man that is worthy of being called a beekeeper knows how to keep his stocks down to the number he wants, and to do it in a way that will let the bees enjoy their full length of life and liberty, and he at the same time will reap more profit twice over than by killing them. In fact, the apiary is not to be compared to the dairy—the multiplication of stock is not a necessity in the apiary as in a dairy, but will tend to diminish the yield of honey every time.

JOHN F. GATES.

Ovid, Erie Co. Pa., April 24, '90.

FOR THE CANADIAN BEE JOURNAL.

Bee-keeping in N. W. T.

DISCLAIMERS FROM MR. KNOWLES AND MR. BRIDGMAN.

IN the CANADIAN BEE JOURNAL, of January 29, page 1016, you publish a discouraging report of bee-keeping in the North-West, which would lead very many to think that Grenfell was the same as the rest of the Territories. The place above mentioned is at least (in an air line) 500 miles from here, and in an entirely different location. We, here, are in a park-like county; timber and prairie interspersed; plenty of tree-bloom, sunflower, golden rod, willow herb, and numberless prairie flowers in all kinds of seasons, either wet or dry. Still, there are locations in this district where bees would starve to death, and so there are in Ontario. All parts of the country are not adapted for bee culture; that is certain.

You ask for the amount per colony that my bees gave. This I cannot answer correctly, as I was working for bees and not honey the last year. I made the strong work for the weak, in

order to have all in good condition. But I think I may say safely that the yield I secured from the one colony could be taken easily from them all, had I produced honey instead of bees. Examined bees in cellar, and found them so quiet that rapping on the hive would not wake them. Opened some and found them alive and so sleepy that they did not stir at first. They were dry and comfortable. I am trying a different covering to any I know of in use, and will report results in the spring.

J. KNOWLES.

Edmonton, Alberta, N. W. T., Feby. 17, '90.

After having the Norwest Farmer copy the letters of Mr. Knowles and Rev. Mr. Fotheringham, as they appeared in the BEE JOURNAL, together with our comments, Mr. C. F. Bridgman writes thus:

"Mr. Fotheringham's report taken alone, be it ever so true, would no doubt prove misleading as to the capabilities of the country. While there are great districts of country in both Manitoba and the North-West which present the appearance of immense flower gardens run wild, there are, as if to break the monotony, localities which seem to devote most of their energies to growing grass. This scarcity of bloom does not generally exist in the neighborhood of scrubby timber or broken and undulating prairie, where I have always advised enquirers as the more favorable places for beekeeping. As regards artificial pasturage for bees, I can not agree that all clovers are failures. Red and alsike have not done very much as yet, although I have had a few favorable reports. But white clover, which ranks among the best of honey plants, I have the best of reason to believe will be a success. I have never heard of it being killed out. It has been growing here in places—sown by accident—for years, but not in quantities to influence the honey crop, and I have sown it on the roadside, in fields and other places and have watched its hardy growth and rapid spreading year after year with increasing interest. Three years ago I sowed buckwheat for the bees, and they got considerable honey from it, but the flavor did not catch me just right, and coming when there was an abundance of honey from other sources I discontinued sowing it, but that was not the end of it, for it has come up every year since, and the bees find it too. Since I began keeping bees in this country there has been nothing like a failure in the honey crop. Every year—and there have been five of them—has been good. There was only one year in which I

could arrive at the average per colony, on account of buying and selling, and that year it was 100 lbs., but individual colonies sometimes gave 150 lbs. and two to four swarms. One colony gathered 25 lbs. in three days during last August."

C. F. BRIDGMAN.

FERNTON, Man., Feby. 20, '90.

Artificial Honey and Manufactured Science.

THE above caption covers an article by Allen Pringle, Esq., in the May number of the Popular Science Monthly, and this is, we believe, the first correction of the absurd and untrue statements made by Professor H. W. Wiley, in the columns of that Magazine away back in 1881.

We are often told that this is a scientific age, and the statement is undoubtedly true. The world now more than ever before looks to science as a secular if not a spiritual guide. However much their speculations may be questioned and controverted, the scientific book and the scientific men are popularly accepted as authority, at least on matters of physical and historical fact. The veracity of science therefore is, or ought to be, above suspicion. How careful, then, ought the teacher and exponent of science to be that his assertions are true; that his alleged facts are facts; and that even his speculations are free from the appearance of dogmatism! He needs to be especially particular when writing for the general public, for people untrained in science will accept his statements as expert testimony. Errors will thus be sure to mislead his readers, many of whom are without the knowledge that would enable them to discriminate between the true and the false in his assertions.

In The Popular Science Monthly for June, 1881, appeared an article on Glucose and Grape-Sugar, by Prof. H. W. Wiley. In that article the following unfortunate statement was made: "In commercial honey, which is entirely free from bee mediation, the comb is made of paraffin, and filled with pure glucose by appropriate machinery." To say that there was not one word of truth in that extraordinary assertion is the short and proper way to put it, and that is exactly what I undertake to say. There was not a tittle of evidence that any such honey had ever been made up to that time, nor is there a particle of evidence that any such honey has since been made.

Nevertheless, this vile slander on an honest

and honorable industry has done incalculable injury to bee-culture in America, if not throughout the world. A lie is said to travel half round the world while the truth is getting ready to start, and this one proved no exception. Though contradicted and refuted over and over again, it still lives and is still going. Newspapers still keep iterating and reiterating Prof. Wiley's slander, but they seldom publish a correction. Thousands of people, common and uncommon, still believe that scientific yarn that comb-honey is manufactured throughout without "Lee mediation," and why shouldn't they? The former believe it because the newspapers say so, and the latter because the magazines and encyclopædias say so; for it is a fact that this itinerant fiction has actually found a place in the American Cyclopædia and the American supplement to the Encyclopædia Britannica. In justice to the latter, however, it must be said that the British work, whose publishers repudiate the American supplement, contains nothing of this.

Here is what the American Cyclopædia says on the subject: "Glucose is very extensively fed to bees, which eat it with great avidity, and store it away unchanged as honey. It is also put up directly in trade as honey—with which bees have had nothing to do—being put by means of appropriate machinery into artificial combs made of paraffin" (page 834, vol. viii, edition of 1883).

The American supplement to the Encyclopædia Britannica has this information on the subject: "Honey is manufactured on the same plan, only here the bees are employed to assist in the fraud. They are furnished with a supply of starch-sugar, which they store in their combs, when these combs are also fraudulent, being made from paraffin and furnished to the bees, who fill them with glucose and cap them with genuine wax. It is difficult to see how the art of adulteration could be carried further" (page 41, vol. i, Hubbard Brothers, Philadelphia and New York, 1885).

Argument and refutation failing to kill the falsehood, the editor of *Gleanings in Bee-Culture*—a responsible man financially—offered a reward of one thousand dollars to any one (including Prof. Wiley) who would produce some of the so-called "manufactured" honey, or designate the place where it was made or could be found. This offer is still open and good. The writer of this article also offered through the press a reward of one hundred dollars (equal to about one thousand dollars) to any one who would produce some of

this artificial honey." This offer is still open and good. None, however, has ever been produced. No one has yet come forward to claim the cash or the bees.

Prof. Wiley had supplemented the assertion above quoted with the following additional information, probably to encourage the manufacturers: "This honey" (that is, the manufactured article) "for whiteness and beauty rivals the celebrated real white-clover honey of Vermont, but can be sold at an immense profit at one half the price." Now, had that business of honey manufacture been as practicable as profitable, the temptation to embark in it would have been almost too much for human nature to resist. But it seems nobody went in, while nearly everybody believed that other bodies were in.

However, Nature's dearth is likely to produce conviction where facts, arguments, and rewards failed to do so. The seasons of 1887 and 1888, especially the latter, were unpropitious for the "busy little bee," and yielded but little honey. The crop was a general failure, not only in America but in Europe. The modicum of honey produced, especially of comb-honey, was soon exhausted, and the dealers as well as consumers, North, South, East and West, were crying out for honey. The producers were inundated with letters and orders which they could not fill. Now, here was the grand opportunity for the manufacturers of "artificial honey." If the article could be sold "at an immense profit at half the price" of the genuine article, as Prof. Wiley assures us, these bogus manufacturers could have coined money—there were "millions in it" apparently. But they failed to appear. The glucose was available, the paraffin ditto, and the "appropriate machinery" ought, in the interval under the law of progress, to have become still more "appropriate" and perfect in its work; but, strange to say, the famine of honey continued.

The tempting prices were offered in vain. Not a pound of the stuff ever "materialized," so far as anybody could find out. Nor was this gap in the extracted honey, caused by the drought, filled by any artificial substitute, which also goes to prove that the prevalent notion that honey is extensively adulterated has very little foundation in fact. Considering the comparatively low market prices of honey the past few years, and the facility with which the genuine article can be produced in modern scientific bee-culture, adulteration would hardly pay for the trouble,

That there is but very little adulteration

either of comb or extracted honey may be safely asserted. The prevalent popular belief to the contrary may be accounted for in two ways—by the prevalent ignorance of the character and what I might call the habits of honey, and by the erroneous teachings and misleading reports of the authorities under review. While it may be said, in general terms, that honey chemically consists of sugar and water, in the proportion usually of about seventy-five per cent. of the former to twenty-five of the latter,* these elements vary so much in their proportions in different grades of honey gathered from so many different flowers at different seasons of the year that there is no sure test, chemical or other, of honey. Even the polariscope, but recently considered a certain test of its purity, and still so considered by some analysts, is found to be uncertain and unreliable. While generally in pure honey the ray of light is turned to the left, some samples, equally pure, though perhaps stored rapidly and capped prematurely, may contain so much cane sugar that the ray is turned to the right. Hence the mistakes of chemists, relying upon the integrity of the polariscope, in passing upon the purity or impurity of honey. They have pronounced samples adulterated which were known to be the pure products of the flowers gathered by the bees. Every apiarian specialist knows that during the course of one good honey season, beginning with the early spring bloom of willow, maple, fruit, etc., and ending with the fall bloom of golden-rod, buck-wheat, etc., he can get nearly a dozen different grades or kinds of honey—in color from the very light, almost transparent linden to the turbid and black buckwheat, and in flavor from the mild and delicious sweet to that which is strong, rank, and quite unpalatable to some tastes. Let a person with no special knowledge of honey be presented with the former for his sight and palate, and then with the latter, and, ten to one, he will declare that the one sample is not honey at all, but a vile imitation. Then, again, good, pure honey, through mismanagement, may become so deteriorated in quality and altered in taste as to at once provoke suspicion of adulteration.

Granulation was also regarded as a sure test of the purity of honey, but it is not so, as some pure grades, containing only the non-crystallizable sugar, will not granulate; while other samples mixed with glucose will granulate.

* According to C. Tomlinson, F.R.S., F. C. S., dextrose thirty-eight per cent, levulose thirty six, water twenty-two, and the remaining four, salts, wax, pollen, gluten, aromatic and coloring matters.

The light-colored and best grades of honey will be fine-grained in granulation, while other grades will be coarse-grained and present the appearance of sugar for certain to the uninitiated.

When an honest man falls into an error, he is always willing to correct it as soon as it is pointed out to him and proved to be such. Prof. Wiley was expected to do that much at least toward repairing the injury he had wittingly or unwittingly done the whole fraternity of beekeepers. But Prof. Wiley failed to do so, so far as the public knows. He neglected—I may safely say refused—to make the *amende honorable*. The apiarists became incensed, indignant, and demanded proof of his assertion or a retraction. The professor of science vouchsafed neither the one nor the other. Finally, after years had elapsed, being still hotly pursued by the apiarists and bee journals, especially the American Bee Journal, Prof. Wiley did manage to make an explanation or "statement"; which, however, in no way improved his position before the public either as an honorable man or a professor of science. About seven years after uttering the slander to the world, he speaks, and makes this astounding admission:

"At the time, I repeated this statement more in the light of a pleasantry than as a commercial reality, for I did not believe that it was possible commercially to imitate the comb." (Letter dated Washington, D. C., May 29, 1888, addressed to W. M. Evans, and published in the American Bee Journal of June 13, 1888.)

In this attempted justification of himself Prof. Wiley says he had heard from a friend of his (now deceased) that comb-honey was manufactured in Boston as stated above. On the strength of that, and that alone, he made the deliberate assertion which I have quoted from *The Popular Science Monthly*.

Now, after reading and re-reading the context in *The Popular Science Monthly* article, I find not a shadow of evidence that this statement was meant for a fiction and not for a fact. It is given seriously and deliberately, along with other alleged scientific facts, with no intimation or indication whatever of its spurious character. The readers (and no doubt the publishers) of *The Popular Science Monthly* accepted the statement in good faith as a fact. The newspapers, of course, accepted it as true from so respectable an authority as *The Popular Science Monthly*, and even the encyclopædias finally took it in. Indeed, nobody, it seems, took it as a fictitious "pleasantry," or even dreamed it was meant for one, till the exigen-

cies of the case required such a construction (or misconstruction) from the author himself. If it really was meant as a harmless scientific squib, with no *malice prepense*, the question arises, How is it that the professor neglected to set the matter right when he found that everybody was taking his joke seriously, to the great detriment of an important industry, and the calumnious aspersion of honest honey-producers?

Another example of spurious science is now before me. The Medical Standard for June, 1889, contains a leading article on Embryology, by a learned New York doctor, in which we are gravely informed that "a worker bee is a highly organized creature, with a well developed brain, wonderful sense-organs, intricate muscular apparatus, and yet is an offspring of an unimpregnated queen bee." Now, this is all well put and quite true, except the last clause, which is just the opposite of the truth. Any apiarian specialist could have told the doctor that while it is true that the virgin queen bee lays eggs which produce drones or males, she never deposits eggs which produce females—that is, workers and queens—until after she is impregnated by the drone. Hence, the worker bee is not "an offspring of an unimpregnated queen bee."

While it would be obviously unfair and unreasonable to hold the Monthly morally responsible for the specimen of *wily* science and its results to which this article refers, it is, perhaps, not entirely free from blame in allowing the matter to rest uncorrected so long. I take the liberty of here suggesting to publishers of encyclopædias and scientific works the wisdom of first submitting doubtful points and dubious assertions, made by men outside their special departments, to *practical* men in such departments, whether the latter be learned or unlearned, for the knowledge of an unlearned man touching his own particular line of business (even the science of it) may exceed that of the scientist both in accuracy and extent. Such a course would often save the specialist from humiliation, and spare the public the infliction of some very queer science, which, not unfrequently, fails to dovetail with every-day facts.

Brant Beekeepers.

THE quarterly meeting of the Brant Association was held at the residence of Mr. Geo. Morris Hatchley, on the 10th April. President J. R. Howell in the chair with the following members present:
Miss Flanders, Mrs. Birkett, Miss Ash, Miss

Lampman, Miss Beatrice Beaton, Miss K. Poole, Mrs. Geo. Morris, Mrs. J. Morris, Mr. Flanders, Mr. Burket, Mr. Ash, Geo. Hutchinson, Geo. Agilsworth, T. King, T. Davis, T. McConkey, L. Boomer, E. Mott, B. Palmer, S. McCubbin, W. Phelps, Mr. Kelly, Geo. Nunis, J. Morris, W. Witts, S. Witts, T. Geddy, T. Entwitree, H. Robinson, E. Robinson, C. Yates, R. Shelington, T. Brown, T. Murray, C. Hamner, T. Hamner, D. Anguish, Sec.-Treas.

The minutes of the former meeting were read and confirmed.

The Act for the suppression of Foul Brood was read by the Secretary, and was new to many of those present. The benefits accruing from the passage of the act were explained by the Secretary. It was the opinion of the meeting that it would be productive of good, though all present thought that there should be some remuneration to those whose bees were destroyed by fire. Articles were read by:

W. Phelps, Mohawk, on Spring Management, and by D. Anguish, Brantford, on Cellar or Out Door Wintering. They will appear in next issue.

GENERAL BUSINESS.

Geo. Morris and T. Murray were appointed representatives to the Harley fair; J. R. Howell and D. Anguish, to the Brantford fair.

The meeting then adjourned, to meet at Brantford at the call of the Secretary.

D. ANGUISH,
Sec.-Treas.

Kent Beekeepers.

THE above association has been organized, and has complied with the terms of affiliation with the Ontario Beekeepers Association.

The election of officers resulted as follows:

President, Alfred Coatsworth; Vice-President, J. A. Foster; Sec'y-Treasurer, R. F. Holtermann.

The representatives appointed for O. B. K. A. were as follows:—Harry Robinson, Mrs. John Culver.

It was moved, seconded and carried, that \$15 of the affiliation grant be expended in prizes at Chatham, Ont., and that the president and secretary make out a list of prizes to be offered for competition.

It was moved, seconded and carried, that only members of the Association. (Kent Beekeepers) who join by August 15th, be allowed to compete for the prizes offered. The membership fee was fixed at 25c. per annum.

The next meeting will be held the second week in August, the day and place to be fixed by the officers of the Association. A programme will be prepared for the occasion and beekeepers receive an invitation to be present at the meeting.

R. F. HOLTERMANN, Sec.

Romney, May 5, 90.

Queries and Replies

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

Controlling Swarming.

QUERY No. 263.—How shall we, with the least expenditure of time and labor, best control the swarming impulse?—
A. E. J.

J. ALPAUGH, ST. THOMAS, ONT.—I cannot control it.

M. EMIGH, HOLBOOK, ONT.—Give plenty of room and ventilation.

DR. MILLER, MARENGO, ILL.—I don't know. How I wish I did!

G. A. DEADMAN, BRUSSELS, ONT.—Have large hives and run for extracted honey.

WM. McEVOY, WOODBURN, ONT.—By using plenty of combs and tiering up.

H. D. CUTTING, CLINTON, MICH.—That is just what I want to know.

A. B. MASON, AUBURNDALE, O.—Give plenty of room before the swarming impulse is developed.

R. McKNIGHT, OWEN SOUND, ONT.—The simplest method is to give plenty of room early in the season. This however is not always effectual.

J. K. DARLING, ALMONTE, ONT.—I don't know. *I clip my queens and let them swarm once. Think I can get more honey.

PROF. A. J. COOK, LANSING, MICH.—Either by extracting freely; or by removing the queen at the opening of the harvest.

S. CORNELL, LINDSAY,—Put on a toy story, the more combs the better. Give the queen a chance to range through the whole hive and extract without waiting for much sealing to be done. This will very nearly prevent the desire to swarm.

G. M. DOOLITTLE, BORODINO, N. Y.—Work for extracted honey, giving all the combs the bees can use. I know of no certain way of fully controlling swarming when working for comb honey.

ALLEN PRINGLE, SELBY ONT.—You can't control the swarming impulse. To modify and partially check it give plenty of room before the swarming fever develops; give as much ventilation as is safer for the brood; shade the hive, and use the extractor freely.

EUGENE SECOR, FOREST CITY, IOWA.—It cannot be controlled entirely if one is working for comb honey by the section method. By knowing just when and how to put on surplus receptacles we can control it to some extent. It is hard to lay down specific rules. The "knack" must be learned by experience.

G. W. DEMAREE, CHRISTIANBURG, KY.—In my opinion we will never be able to control the swarming impulse so as to prevent a desire or natural inclination to swarm under favorable conditions. It is a question of doubt as to whether it would be profitable to suppress the swarming impulse if it was possible to do so while bees were in normal condition. The swarming impulse leads to industry and thrift. Hence we must utilize the swarming impulse while we devise means to prevent increase beyond our wants.

JAMES HEDDON, DOWAGIAC, MICH.—This question is altogether too large for the query department. Swarming never was absolutely controlled. Who can tell what you mean by "controlled?" How many swarms per year from a hundred colonies would you allow and still call the swarming controlled? If time ever admits, I will try and furnish the JOURNAL with an article on the subject of preventing increase.

We would be glad to have the article promised by Mr. H.—Ed.

J. E. POND, NORTH ATTLEBORO, MASS.—This query must come from a novice, most certainly. To answer it would be only to give an opinion, and even that would require ten times the space that can be given in this department. And then again, who is the beekeeper, no matter how large his experience, that can give a certain and positive answer. I cannot. I could give my way but it would take too much space, and would not warrant certain results at all times.

By THE EDITOR:—Our answer to this query appeared on page 1145, Vol. 5. In a late issue of the Review the following appears from the pen of W. Z. Hutchinson;

The only plan of controlling increase that we have tried, or that we believe is practical under ordinary circumstances for the mass of bee-keepers, is that of preventing after-swarming by giving the first swarm upon the old stand, setting the old hive by the side of the new one until just as the young queens are about to hatch, then moving it to a new location. This throws the flying force of the old hive into the new one; leaving the old one so nearly deserted just as the young queens are hatching, that all ideas of swarming are usually abandoned. This plan necessitates the use of light, readily movable hives."

Painting Hives Different Colors.

QUERY No. 264.—Is it necessary to paint hives different colors, and inter-

mix them, in order to prevent loss of queens while mating?—A. E. J.

JAMES HEDDON, DOWAGIAC, MICH.—No.

M. EMIGH, HOLBROOK, ONT.—No.

A. B. MASON, AUBURDALE, OHIO.—Not if the hives are placed far enough apart, say six feet.

R. MCKNIGHT, OWEN SOUND, ONT.—Some say it is. I am not a believer in this doctrine.

J. ALPAUGH, ST. THOMAS.—No, not if you will face your hives in different directions.

EUGENE SECOR, FOREST CITY, IOWA.—I think not if the hives are properly grouped.

WM. McEVOY, WOODBURN, ONT.—No. But it would be a great help to both queens and bees if you would paint the fronts of your hives of different colors.

PROF. A. J. COOK, LANSING, MICH.—Unless there are trees, or something to break the monotony there will be loss.

J. K. DARLING, ALMONTE, ONT.—I do not know, some of my young queens come out and wander into other hives after being mated and laying.

S. CORNELL, LINDSAY.—No. A neighbor has a number of large shingles painted in different colors which he attaches to the hives above the entrance at the proper time. He thus gets whatever advantage there is in different colored hives.

J. E. POND, NORTH ATTLEBORO, MASS.—Not by any means, I think it rather improves the appearance of the bee-yard, so to do, but will not in my judgement be of any aid to the bees in finding their homes.

H. D. CUTTING, CLINTON, MICH.—No. I don't think it is. I have used different colored cloth tacked to the hives, I expected a queen from you a few days ago. But I don't use them now I have no trouble as far as the hive is concerned.

ALLEN PRINGLE, SELBY, ONT.—It is not necessary if you distinguish them in some other way. If you do not, and your hives are close together, it would be necessary.

DR. MILLER, MARENGO, ILL.—I think not. It is of more consequence to have the hives so placed with regard to each other and to surrounding objects that no two shall look just alike. Something is gained by having hives in pairs.

G. A. DEADMAN, BRUSSELS, ONT.—My experience is in favor of not having every hive alike in color and position. I prefer having them in sets of three rows, and than a few trees, on every other row. Then have a few of the hives different in color or position. Next to this plan I like those near each other to face in different directions say east, south east and south.

G. M. DOOLITTLE, BORODINO, N. Y.—No not if they are 8 or 10 feet apart as they should be. Paint hives white and if close to each other put a wide board or a large flat stone in front of every other one. Small trees or an occasional grape vine in a bee yard help much in this matter.

G. W. DEMAREE, CHRISTIANBURG, KY.—I say no. Unhesitatingly no. In answering thus I am aware that the "Books" teach otherwise. But many errors of this kind live their nays nine times out. A good story like this is too good to give up. Some eight or ten years ago I spent days and weeks experimenting and studying the habits of virgin queens. When a virgin queen leaves the hive on her wedding trips the bees of that hive are left in an excited state and their movements at the entrance of the hive is a "finger board" to the young queen when she returns. The color of the hive has nothing what ever to do with her safe return. As an experiment I have kept a double hive with the entrances both at same end as the hive not more than 4 inches apart, and from 5 to eight young queens have been mated in each of the divisions each season for four years past and not a single mistake has been made.

SAMUEL WOOD.—Bees are doing well. From 42 colonies in the fall, 41 are living, and have each got brood and eggs in three or four combs. Nottawa, April 27, 1890.

MELCHER'S HONEY EXTRACTOR,

DR. LEURIEUX.—Are any of the readers of the BEE JOURNAL acquainted with the Melcher's improved extractor? What are its advantages over other extractors besides its cheapness? Is it just as good and convenient as others?

Etochemin, Que., April 19, 1890.

The information desired will be given in next issue.

GEO. WOOD.—I placed 80 colonies last fall and on setting them out a week ago, found every colony alive, with plenty of honey, a laying queen, and the majority with young bees hatching. I have usually been successful in wintering but this is the best; loss, nothing.

Monticello, May 1, 1890.

F. A. GEMMELL.—Poor weather for brood-rearing here. cold winds. No pollen. Stratford, Ont., May 9, '90.

C. SMITH.—My 38 colonies came out all right this spring. I have never lost any yet. They are working on willows and soft maples, and dandelions are just coming out. The weather is cold and backward with frosty nights.

St. Helens, Ont., May 12, '90.

* * Please send us the names of your neighbors who keep bees, that we may forward copies of the BEE JOURNAL to them. A postal card and five minutes time will do it.

* * Secretaries of local associations are requested to forward us, at the earliest possible moment, the dates of their meetings; and when the convention is over, a full report of the proceedings.

SELECTIONS.

Making Artificial Swarms.

JNO. S. DENT.—My present apiary consists of three colonies of black bees in double-walled hives, each containing twelve gallup ($11\frac{1}{2} \times 11\frac{1}{2}$) frames. Now, I wish to manage them this season so as to have all Italian bees by fall, and at the same time to get the best results both for increase and honey; especially extracted. As you know, I have ordered a pound of bees with a queen from you, as well as a nucleus of Italians; and with the aid of these, and one box hive colony, if necessary, I would like to fill eight more Combination hives with Italian colonies by next October. The only thing which makes me feel at all "dubious", is that my work will take me away from home from 6 A. M. until 6 P. M., so that I will have to dispense with natural swarming entirely. I can take what time I need for extracting, and other purposes, but I cannot afford to lose time watching for natural swarms. I have never seen artificial swarming practiced, yet I think I have sufficient intelligence to carry out any directions you may give me, except perhaps clipping queen's wings. The first thing I intend doing is to buy a boxhive colony and transfer it, giving for it a 9-frame hive and some Italian brood later on. This will leave me seven empty (combination) hives, three of which I will occupy by dividing your pound of bees and nucleus between them, moving the old colonies away, and setting them in their place; then I think the other four will contain what further increase it is advisable to make; if not, I can hive some in upper extracting stories. Now, Friend Jones, do you approve of my plan as far as it goes? And will you give me further direction, so that I can send you a report next fall of "150 lbs. per colony and increase four-fold?"

Cowansville, Que., April 15, 1890.

You had better not divide the pound of bees you are getting until they get strong as one colony—dividing up and having a lot of weak colonies simply prevents you from obtaining the best results. A pound of bees and a queen will not usually produce more than one good colony the first year, but with favorable management you might obtain two. The box-hive had better be transferred during fruit-bloom, or at the beginning of the clover harvest. Do not attempt to divide at all, until the colonies are just about ready to swarm, and have started queen cells; but do not expect to get a big increase, and a large yield of honey as well, unless the season is extra good. We never think of doing more than doubling our colonies, if we desire the largest possible yield of honey. Strong colonies mean success in this respect, while weak colonies, with lots

to do in the hive on their own account, mean failure. We cannot give you such instructions as would ensure the end you desire,—a four-fold increase and 150 lbs per colony,—unless you mean by the yield you desire, 150 lbs per colony spring count, which would be equal to 450 lbs, as you now have three colonies. In this case, you will perhaps, with careful management reach the goal aimed at. See information as to artificial swarming on page 88, this issue.

A HOST OF COMMENTS AND QUESTIONS.

JOHN F. GATES.—The new C. B. J. is an improvement, but how I would like to see its face every week.

Does "A Hallamshire Beekeeper" write to make himself feel good, or others, which?

The editor of the B. B. J. has it about right when he says, "get the working qualities of our bees right before we notice the markings too much", or words to that effect. A cross between the Italian and the black bee suits me.

Of course the queen will try to get in the sections to lay drone eggs, if there is no drone comb in the brood chamber, but they always did best when I had some drone comb in every brood chamber.

MR. R. L. TAYLOR! Will you please tell us how those bees came out that you took from their winter quarters in January. I did that once and the bees all dwindled in the spring and died.

Tell that correspondent in *Gleanings*, not to advocate the adulteration of honey for the purpose of keeping it from granulating. I have kept liquid honey a reasonable length of time by simply heating it to the boiling point—it does not hurt its flavor.

Any more surplus bees to kill? Next!

Don't try to heat your bee-house artificially. Build it warm.

What is an article? Is it a sermon? Our preacher preaches shorter than t'other, and we pay him more.

When does the funeral of that man take place, who wrote the conundrum about the boot-black and the bee?

If you winter your bees rightly perhaps they don't need a deep-space under the frames, but if wintered carelessly the space might be best.

Don't think any such contanglement as C. W. Dayton describes as a queen-restrictor will work good to any one. Daniel Foolery never raised honey.

I like to read such pieces as F. O. Addison wrote in the *JOURNAL* of March 1, under the title of "Poor Investments". Read it again.

Believe the best size of brood-nest is 9 in. high and 13 in square, inside measure

MR. F. H. CYRENIUS, page 1118, leaves the beginner to suppose his bees are shut in the hives tight, while in the cellar. Write thing

plainer. I lost my bees once by following a plan that was badly described.

As to paper being spread on bottom-boards in cellar, to take out to clean hives, I'd like to see you do it with mine, when bees are clustered clear to bottom boards. Maybe you'd do it and maybe you wouldn't.

I may be wrong but it seems to me that only such things as most people don't know ought to be asked in the "query" department. I don't mean any harm. I only thought D. A. might settle some of the lightest ones by a verse or two. Stopping up a crack in a bee-gum for instance wouldn't take as much paper to stop it up as it took to write about it.

Water has stood in the cellar most all winter, but my bees are as bright and healthy as larks.

Ovid, Erie Co. Pa.

EXTRACTING UDRIBE HONEY.

A SUBSCRIBER writes: "As long as "total depravity" and "original sin" hold on to their mortgage on men, that uncapped honey will (the bulk of it) go on the market in a crude state, and I guess that there is no way of regulating the matter. It is too much trouble to give it the heat and time required to ripen, and too handy to draw it off into the vessels for shipment and be done with it'.

It strikes us that our friend is not willing to allow that beekeepers can be educated up to bettering their condition the same as any other class of people. If this were the case there would be little use in publishing a journal to give expression to the experience and thoughts of intelligent and progressive apiarists. It is true that there will always be some who will not heed the teachings as laid down in the various publications, but there are others who are willing and ready to learn how to improve their position. And it will be so in this matter of selling honey before it is properly ripened, the same as in anything else. If the advantages of properly ripening the honey, and the increase in price which will in time accrue to the one who puts ripe honey, and ripe honey only, on the market, are set forth, there will be many who are ready and willing to follow out the instructions laid down. The ripening process is an exceedingly easy one, requiring but little time or trouble at the hands of the bee-keeper, and the satisfaction derived from a feeling that one is doing his best, should actuate many to do just what we wish. See a further reference to this subject on page 89, this issue.

REPORT FROM THE MOUNTAIN VIEW APIARY.

H. A. SCHULTZ.—My bees wintered splendidly; 80 colonies were put in the cellar last November, where the temperature ranged all winter from 40° to 60°. 75 colonies, in first class condition, are on their summer stands now; of the four lost, two died of starvation, but the other two had plenty of honey in their combs and were strong in numbers, but were all lying dead on the bottoms of their hives, three to four inches deep, and as far as they reached up among the frames the combs were very mouldy. All the other colonies, excepting three, were as dry and clean as in the summer time, but these three had the entrances and the front of their hives badly spotted through the winter, but are tip-top now. Most of my hives have loose bottom boards, but I left them under the hives for the winter as if they were nailed on. The entrances to the hives, being half an inch high by ten inches long, were left entirely open, no other ventilation being given. Each colony had a quilt made of two sheets of gray cotton, with two inches thick of nice soft wool between, over their frames. The weather so far has not been very favorable for bees this spring; dark or cloudy days with cold winds and hard freezing nights, and for a change little furies of snow this last two days, is the May-weather we are having this year.

Red clover and Alsike, as also much sweet clover, has all been winter-killed around here.

Clontarf, May 8, 1890.

You are having weather very much like we are getting a taste of here, as will be seen by reference to "Our Own Apiary."

JAS. ELLIOTT.—Bees all came through the winter extra well and are in prime condition. I am a little anxious about them on account of the backward weather, they have so much brood and so many bees and virtually nothing outside to work upon. They all had plenty of stores the last time I examined them, but they will very soon go through them.

Wilton Grove, Ont., May 8, 1890.

CONVENTIONS.

May 17 '90.—Haldimand County, at Cayuga, E. C. Campbell, Sec., Cayuga, Ont.

May 19, 1890.—Northern Illinois at Rockford, Ill., D. A. Fuller, Cherry Valley, Ill.

Jan'y 7-8, 1891.—Ontario Beekeepers Association, at St. Catharines; W. Couse, Sec., Streetsville, Ont.

July 17, '90.—Carolina, at Charlotte, N. C., N. P. Lyles, Sec., Derita, N. C.

Sept. 1, '90.—Lambton County, at Petrolea, J. R. Kitchen, Sec., Weidman, Ont.

* * * Subscribers who fail to receive their copies of the JOURNAL promptly, will kindly advise us. Missing numbers are always replaced, where possible.

CAPPINGS.

CUT FROM A VARIETY OF COMBS.

Unripe Honey.

THE practice of extracting unripe honey was mentioned editorially on page 54, last issue. Since writing what appeared there, we notice an article from Mr. C. Theilmann, in A. B. J. specially referring to this very matter, wherein he claims that *all* honey no matter how long left in the hive, needs to be artificially ripened by heat, before it is ready for the market. The plan given is just such as we have mentioned before in these columns. By the process given, we have had the honey so thick that it would hardly run, and that without the least sign of granulation.

"I claim that as a whole, there is but little, or none, of all the extracted, and but little of the comb honey, put on the market, which has its full value and keeping qualities, without going through an artificial procedure, and the quicker and the more effective it is done after taken from the hives, the better and finer in taste, quality and keeping powers it will be. These are not theories, but facts, as they have come under my observation and experiments.

Honey, sealed up air-tight, right from the extractor, will keep as long as so sealed, but as there is always some unripe honey in it, it will ferment more or less when exposed, and get that queer, sharp twang in taste, as Mr. Heddon calls it. In fact it gets partly sour, and there is no way yet found to get that out of it again, and it is partly spoiled, and does much harm in the market.

Honey newly from the extractor, put into the cellar, or other damp places, or put in an ordinarily warm place with cool nights, in open vessels, will be almost sure to produce bacteria, and will sour; but take the same honey to a room in which the air is pure, and from 85° to 90° above zero, for from three to five weeks, and the same honey will be the best of its kind in every respect that can possibly be produced. The same is true of comb honey. I have practised this for the past two years, and my customers say they can get no such honey from anybody else. Even the late fall honey is thus made as fine as any of its kind."

COMBS NOT SO EASILY UNCAPPED WHEN THE TOP BARS ARE WIDE.

So much has been written upon the subject of wide top bars that it would seem every point had been covered, but Mr. Wm. L. Drew, of Newton, Iowa, brings forward an objection to their use that we believe has been overlooked. He says that the projection of the top bar beyond the comb surface would greatly increase the labor of uncapping when raising extracted honey. Particularly would this be true with

shallow frames. Were we to engage extensively in the production of extracted honey, we should use shallow combs, and should either use honey boards or else have wide top bars for the brood frames and narrow ones for use in the supers. As we should probably use queen excluders, it is quite likely that our choice would be narrow top bars and honey boards. This point touches not the exclusive, comb honey producer.

The above, by W. Z. Hutchinson, in the Review, is good, sound, common sense.

THE SECRET OF SUCCESSFUL HONEY PRODUCTION.

G. M. Doolittle writes on this subject with force, in the following paragraph:

"First we have the field or location we are in, of which we should have a thorough knowledge so as to work intelligently; next, we have the bees to get in large numbers just in time to take advantage of the main honey flow or flows of our field; and third, that a bee is of little value as a honey-gatherer only as it can be placed in the field of action just at the right time, having as few bees at all other times as is consistent with so placing these honey gatherers. In this way the quantity of honey which a bee can gather in a life-time becomes of interest to us, that we may work assiduously to have that life-time come when our field is yielding honey. This is one of the great secrets of successful honey production."

DO BEES WEAR?

Though it will never increase either the price or consumption of honey, to know whether they do or not still there is a satisfaction in knowing. We observe in the last issue of the *Record*, (Eng) that a correspondent has "seen bees come rushing into the hives" on hearing thunder, so that "by the time the storm had burst hardly a bee was on the wing." He says he "has also seen them rush in on hearing thunder, when no rain followed and the sun still shone on." He considers this a pretty good answer in the affirmative.

BOTTOM STARTERS IN SECTIONS FOR SAFE SHIPPING.

Writing on the above subject—Dr. Miller says in the last issue of *Gleanings*:

"For several years I have secured this by putting a starter in at both top and bottom of the section. When the comb of honey is fastened just as securely on the bottom-bar of the section as on the top, you have about all you can get so far as the section is concerned, to secure you against breakage in transportation. I have experimented considerably to find out the best width for a bottom starter. If too large a starter is used it topples over; and if too small the bees are pretty sure to gnaw it down.

I succeeded, however, in using bottom starters an inch wide or deep, and contemplated trying them larger. But later I found that some of these had fallen over, and I settled down on $\frac{3}{4}$ of an inch as large enough. This, with $\frac{3}{4}$ inch starter at top, fills the section except a small space between the two, which the bees have no difficulty in filling up. I have been asked whether a bad-looking section is not made if the top and bottom starters do not meet pretty nearly in the same plane. Not at all. I have seen the top starter swing to one side, and the bottom starter bend over to the other side, so that there lacked half or three-quarters of an inch of being a perpendicular line from one to the other, and the bees seemed to finish them promptly; and when finished, you could not see the slightest imperfection. It takes no more foundation to fill a section with two starters than with one, the only difference being the time taken to put in the extra starter, making an extra expense of one or two cents on a hundred pounds, and sometimes saving a good many cents in shipping."

THICK TOP BARS.

By last Gleanings it will be observed that A. I. Root is now making thick top-bars after exactly the same style as we have employed in the Jones and Combination hives for four or five years. This is a step in the right direction, and our friends will next decide that wiring frames is not so necessary after all, when they have given these stiff top-bars a trial without wires. Even Dr. Miller admits that if thick top-bars come into general use "the necessity for diagonal wires and folded tin will disappear. This is granting half of our contention at once.

FRAMES AT FIXED DISTANCES.

The discussion on thick top-bars to prevent burr-combs, in the American bee-publications, has brought up the question of having the frames at fixed distances to assist in the work, and many suggestions have been made, among them being metal ends, indented metal frame supports, wooden projections on frames, wire staples in the sides of the frames, but the latest is by the use of furniture or chair nails,—round headed brass tacks such as we use on fancy smokers. We have been over all this ground years ago, and the best of them all in our estimation was the wooden projections on the side-bars of the frames, at the top and bottom, but even these were clumsy. Our advice is to leave the whole matter of "frames at fixed distances" alone. Space your frames so that they will be not more

than three-eighths inch apart, and do it *with your eye*. Who is going to disturb them after they are once spaced? The bees can't do it. This whole question, like a good many more is taking up a great deal more space than the subject will warrant.

ARTIFICIAL INCREASE.

We give the "nucleus plan," of artificial swarming, as practiced by G. M. Doolittle:

"To be of the most value the nucleus should be formed eighteen or twenty days before the honey harvest, by having enough bees in it to protect a frame two-thirds full of brood, the larger part of which should hatch during the first four or five days, while said comb should contain some eggs just laid, if possible. Beside this frame of brood and bees, the nucleus should contain a frame having a pound or two of honey in it, the whole being set in a hive and confined by means of a division board. The next day after making, a mature queen-cell should be given, or newly hatched queen introduced. In about ten days if all proves favorable, the young queen will be laying, when I go to the hive from which I formed the nucleus, and select a frame of brood, nearly all of which are gnawing out of the cells, and add this to the nucleus, always putting a frame of comb or comb foundation into the old colony to take the place of the one taken out, otherwise too much drone comb would be built; for colonies that are allowed to build comb under these conditions nearly always build drone comb. I now wait four or five days, when I go to the old colony and take out four frames of brood, from which all the bees are shaken as they were from the last mentioned comb, when I carry them to the nucleus. I now fill out each hive with empty comb of foundation, and put on the surplus arrangement. By the above each colony is made of about equal strength, and the brood is so taken out of the old hive that the colony does not have a desire to swarm. This old colony will have the most field bees for the first week or so, but the other will soon make the stronger colony of the two."

We found it better to put in one frame a day for four days, or two frames on the fifth day and two more on the seventh or eighth day. This was a little more labor, but not much after all, where there were any eggs left in the four frames when all put in at once the bees often neglected the young larvae or eggs, having *too much* to take care of, and being unaccustomed to it. By giving them fresh brood gradually, they not only became accustomed to the new order of things, but there were more young bees hatched out, and they were the better enabled to care for the remaining brood. Some may say, take

all sealed brood; but the difference in the time required to hunt up sealed brood often would overbalance the time required for putting it in. There is no question about the fact that unless an apiarist is thoroughly posted on the subject of artificial swarming, which includes a full knowledge of flora and honey resources of his locality, he had better allow the bees to swarm naturally, if, as Mr. Doolittle says, only one swarm is allowed from each colony, and where the said swarm will issue in time to prepare both old and new colonies in good shape for the honey harvest.

OUR OWN APIARY.

BEES CHILLED WHILE GATHERING POLLEN

THIS is the worst weather that we ever recollect having in this part of Canada—looking at it from the stand point of a beekeeper. Farmers, too, are grumbling at the backward state of vegetation, owing to the unusually cold weather. There have been very few days that the bees could fly out and get pollen, and then only for portions of the days. The sun comes out, and the bees fly forth to the woods for pollen; before they get back, the sun is covered by a dark cloud, the atmosphere changes, and they become chilled and fall to the ground. Hives have been depopulated at a very rapid rate for some days past. Years ago we set out a great many soft maples along the village streets. They are now large enough to furnish an abundance of pollen for all the bees that can profitably be kept in this locality, so that the bees in our local apiary do not have to go very far, nevertheless, we find, in walking through the apiary, thousands that get back from the trees laden with pollen, but so chilled as to be unable to get into the hives. We counted in many places from three to ten bees on a foot square of ground, while the tops and sides of the hive would be dotted with bees which were so chilled as to be unable to get any farther. Within a radius of three feet of the entrance of one hive, we found forty-seven bees loaded with pollen, shivering in the chilly air. We helped a number of the

poor little things up to the entrance, and they seemed to be revived by the warm air from the hive, and were able to crawl in. While watching these, the sun came out again, and in a few moments, many of the bees rose from the ground and flew to their hives, but an immense number were too far gone. A continuance of this weather will so depopulate the colonies that a good deal of time will be required to build them up again. As it is, a very large proportion of the bees set out of winter quarters have perished, but as young bees are now hatching out, favorable weather would soon fix matters all right again. Those living farther south of us, may escape the experience we have had, or at least not feel it to so great an extent.

KEEP THE COLONIES WARM.

While this sort of weather continues, keep the entrances closed up pretty closely and see that the brood-chamber is well protected by packing, so as to prevent loss of heat for brooding. Several thicknesses of newspapers over the cloth on the frames will answer a good purpose, and will save much heat from escaping upward. In two hives in which very little brooding had been carried on, and in which large numbers of eggs had been deposited in the cells, the supply of pollen became exhausted, and as the weather has been so disagreeable as to prevent gathering a fresh supply, the half grown larvae was allowed to perish. We took a comb containing plenty of pollen and a little honey, and placed it next the brood nest, first removing the empty comb to make room for it. It was surprising to see how eager the bees were to get at the pollen, and today (10th), three days since it was put in, they have utilized about one-third of it. The larvae which was left seems now to be all right.

While examining this colony, we noticed a few stray bees in the air about a hive, a short distance away. Closing up the hive quickly, we went over to see what the trouble was. Opening the hive quickly as possible, we lifted out a few frames and found the queen on the bottom board, but too late, as she could scarcely move, and was covered with a ball of bees, which we separated her from, when she died in our hands in less than a minute—a case of robbing.

KEEP WATER AT HAND FOR ROBBING.

Although we advise others to have a supply of water conveniently at hand at all times, so that it can be got quickly when required, you see in this case, we did not live up to our own advice. We find this spring worse for robbing than usual; some of the very strong colonies seem determined to have honey, no matter where they get it from, and they pitch on to the weak ones the moment a ray of sun-shine permits them to fly out. About the only way we can prevent this is to put wet hay or straw over the entrances of the strong colonies that are robbing the weak ones. Perhaps some may wonder why we don't put it over the weak ones to prevent the stronger ones from robbing them? We have tried and recommended this, but we find that soon as they were prevented from going into one hive, they would apparently scatter round and give up, but in a short time we would find them attacking other colonies, so we threw flour on them as they were flying in front of the hives as they were trying to rob; this marked them and they were easily discovered among the other bees. By watching the hives they returned to, we had no difficulty in finding out those that were doing the robbing, and it was less work to give them a bath than the weak ones. You would be astonished to see how quickly it cools the robbing ardor. There does not seem to be any fight or rob in a wet bee. We spoke of this matter in the JOURNAL only a short time ago, but it is perhaps better to mention it again that those of our new subscribers at least, may learn it, and may be benefitted by trying this means of preventing robbing.

is the result of our mode of packing. The bellows were all closed and tied down tightly to prevent breakage in the mails, and the springs have perhaps weakened from being kept in this position several days. If this be the case it can be easily remedied by simply removing the end of the spring from the staples on the under side of the bellows, and turning it back almost straight with the upper end of the spring, and then replacing it in its former position. This should be done at any time during the life of the smoker, if the spring becomes weakened.

To whom it may concern.

We inform our Canadian customers that Mr. R. E. Smith who advertises our make of foundation in the CANADIAN BEE JOURNAL of May 1st has not bought any of our make and that our sole agents in Canada are E. L. Gould & Co., of Brantford. The price at which this so-called Dadant foundation is offered is lower than our present wholesale price aside from the duty on it. The beekeepers who want to make sure of genuine Dadant foundation should address E. L. Gould & Co., of Brantford. CHAS. DADANT & SON, Hamilton, Ill.

We have transferred a large number of bees to combination hives, and we are prepared to sell the S. W. Jones hives out of which they came, at very reduced prices. We will furnish 12 empty frames and wooden division board along with each hive at 70 cents each, and will take bees in full colonies, or wax in exchange therefor. Write us, all who have any to offer.

Discounts for large Orders.

We have always made a liberal discount for large orders in the price of the goods themselves, but to still further encourage this class of trade we are now going to offer special discounts for cash with order to encourage those who would just as soon remit in that way if there was any special inducement. We do not do this because of any fear of not being paid if we allow the goods to be shipped without being settled for, but because of the great amount of time and labor saved in book-keeping, expense of making drafts etc. In offering these discounts, it is on the distinct understanding that not more than 50 per cent in value, of each order shall be for foundation:

On all orders of \$	25.00	and over	2	per cent.
" " " "	50.00	" " "	3	" "
" " " "	75.00	" " "	4	" "
" " " "	100.00	" " "	5	" "

These will take effect from this date.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES, - - - EDITOR-IN-CHIEF.
 F. H. MACPHERSON, - - - ASSOCIATE EDITOR.

BEETON, ONTARIO, MAY 15, 1890.

One or two have written that the springs of the smokers lately sent out were not as strong as they would like. It is just possible that this

EXCHANGE AND MART

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

BEES

50 COLONIES Bees on hand, 10 of these for sale, Send for particulars. Only good Colonies will be sent out. Address: H. M. FREY, Heidelberg, Ontario.

50 HIVES Hybrid and Italian Bees for sale in single board hives Price \$5 and \$5.50 per hive. A bargain. Address ADIN BURKHOLDER, 1298 Chene Street, Detroit, Mich.

1000 LBS. of Bees for sale at \$1 per pound, discount for large orders. Will sell 100 hives of bees at \$5 per hive or 10 for \$45. 1000 lbs of foundation 40 and 45 cts. J. A. FOSTER, Tilbury Centre.

1000 Lbs. Chas. Dadant & Son Comb Fdn. ready to ship at once. Every inch as good as sample. Price, brood 40c a lb, section comb 45c a lb. wax worked, brood 10c, section 15c a lb.; send for sample. All orders to R. E. SMITH, box 72, Tilbury Centre Ont

20 STRONG colonies of pure Italian bees, in Jones S. W. hive or story 2 half 2 two story hives, nine frames in each story. \$5.00 per colony. Have to many to attend to. HENRIETTA F. BTLLER, Campbellford, Ont.

WANTED to begin work 1st May, an experienced bee-keeper; also one who has had some experience To the right parties good wages will be paid. Address: F W JONES, Bedford Que.

WANTED, three good salesmen, either on salary or commission. Independent territory given to each. Write at once for terms and secure choice of territory. "The more the merrier." Address, MAY BROTHERS, Nurserymen, Rochester, N. Y.

40 Colonies of Bees for sale, Italians and Hybrids; 22 upper stories and combs, and perforated honey boards; 28 honey boards and supers and super reversers for comb honey; extractor, store cans. 8 C. bee feeders, 2 queen nurseries and a number of other articles, all for \$250 SAMUEL STAFFORD, Sheddon.

BEES! BEES!! Yes all the bees you want. 300 Nuclei, comb foundation the best make, also all kinds of supplies, Excelsior hive in flat with racks, 40c each. Also 10 inch Pelham mill, just as good as new for \$12 warranted. Send for price list of 1890. R. E. SMITH, Tilbury Centre, Ont.

COMB FDN. I make the best and don't you forget it, I will work up your wax, 10c per lb for brood, 20c for section. I do not cut prices. Poor work is dear at any price. 7 years and every customer satisfied. Price of Fdn. on application. W. ELLIS, St. Davids. Ont. (Niagara Falls express office.)

A RARE chance for farmers, mechanics and others to increase their income. Having successfully kept bees for the last twenty years I am not now able to attend to so many as formerly. I will now sell or exchange for anything I can use a quantity of bees hives, surplus glass boxes, bee tents, &c., &c. also about 50 empty hives surplus. My hives are considered by experts to be the very best in this country and takes the improved Jones and Langstroth frames. WM. SNELLGROVE, Woodstock, Ont.

Bee-Keeping for Profit

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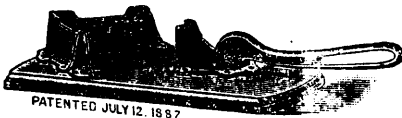
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