

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.

- Additional comments / Commentaires supplémentaires: Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary materials / Comprend du matériel supplémentaire
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

THE CANADIAN BEE JOURNAL

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

Vol. VI, No. 14. BEETON, ONT., OCT. 15, 1890. WHOLE No. 274

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

| Time. | STANDING ADVERTISEMENTS. | | | | | page |
|-----------------|--------------------------|--------|--------|--------|--------|---------|
| | 1 in. | 2 in. | 3 in. | 4 in. | 1 col. | |
| 1 month | \$2.00 | \$3.00 | \$3.50 | \$4.70 | \$6.50 | \$10.00 |
| 2 months | 3.00 | 4.50 | 5.50 | 6.50 | 11.00 | 17.00 |
| 3 months | 4.00 | 5.50 | 7.00 | 9.00 | 15.00 | 25.00 |
| 6 months | 6.00 | 9.00 | 12.00 | 15.00 | 21.00 | 40.00 |
| 12 months | 10.00 | 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 charge, \$1.

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till forbid and 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 all arrears paid.

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

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

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 every one, 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.

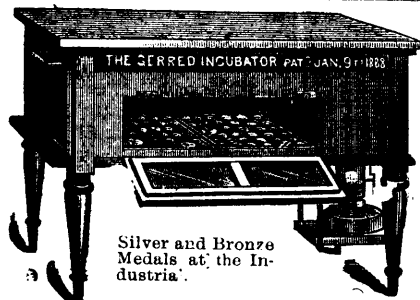
ADVERTISEMENTS.

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-
dustria.

All sizes, 50, 100 and 200-egg ma-
chines. Send for descriptive
Circular. MENTION THIS JOURNAL

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

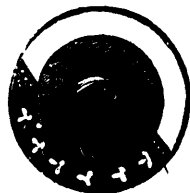
EAST END POULTRY YARD, SARNIA, ONT.

FOR SALE—A number of fine cockerels and
pullets of the following breeds: Barred Ply-
mouth Rocks, Silver Wyandottes; S. S. Ham-
burgs, W. C. B. Polish and W. F. Blk Spanish
at \$1.50 to \$2.00 each.

MAMMOTH BRONZE TURKEYS
Hatched in May, 1890, from stock imported
from McClave of Ohio, and Freeman of Michi-
gan, at \$2.50 each.

E. A VIDAL
P. O. Box 546, Sarnia, Ont.

G ODEN
WYANDOTTES !



White Wyandottes,
Knapp & Croffets strain,
Rose C. Brown Leghorns,
Croffets & Eckers strain
Pekin Ducks, Rankins
strain. Stock for sale at all
times. My stock is choice.

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 some fine young stock of the following
varieties, now ready for shipment,

Golden and Silver Laced Wyandottes,
Black and White Minorcas,
Black, White and Brown Leghorns,
Barred Pym. Rocks,
Dark and Light Brahmas.

WITH A FEW OF OTHER VARIETIES.

This Year's Breeding Stock For
Sale, Cheap.

Prices greatly reduced between now
and November 1st.



Will give full particulars in answer
to correspondents. State plainly
what you want. It will facilitate
business. Send for Circular.

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
Upam 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.



This Space belongs to

C. H. McRae
PARK

Poultry Yards,

DUNVILLE, ONT.

Where choice **BLACK**

MINORCAS and **S. C. B**

and **W. LEGHORNS** can be bought.

25 cents will pay for a trial trip of **6 MOS.**
The Canadian Bee Journal

EDITED BY D. A. JONES,

And published on the 1st and 15th of each month, containing all the good things in the apicultural world as they come to the front. Think of a whole winter's reading for a quarter. Stamps, American or Canadian, of any denomination accepted at par. Sample copy free on application.

The D. A. Jones Co., Ltd., Beeton, Ont

Please mention this paper.

A RARE CHANCE

We have about 40 nuclei—Carniolans and Italian crosses—which we will sell at \$2 to \$2.50 on three combination frames, with sufficient stores for transit. Each nucleus will contain a choice queen to breed from, raised from extra fine mothers, selected specially for the honey gathering qualities of the progeny.

We have a few imported Carniolan queens (received this season) which we will sell at \$3 each.

Fifty colonies of choice bees, in 8 frame combination hives, Italian and crosses, at \$4 to \$4.50, each with good queens and most of them with considerable stores.

The above prices are for immediate delivery, and to those who wish to change their queens or stock, this is an excellent opportunity.

THE D. A. JONES CO. (LTD),

Beeton, Ont.

PRICES CURRENT.

BEESWAX

We pay 33c in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 30 per cent. on Wax coming into Canada.

FOUNDATION

Wood Foundation, cut to any size per pound.....50c
 over 50 lbs. 48c
 Basica " in sheets per pound.....55c
 Beeton Foundation cut to fit 3 1/2 x 4 1/2 and 4 1/2 x 4 1/2, per lb. 60c
 Beeton Foundation, starters, being wide enough for ... 48c
 Frames but only three to ten inches deep c

CARNIOLAN - QUEEN'S

From Pure and Gentle Mother's will be bred the remainder of the season at

SPECIAL PRICES.

Send for Special Circular to

JOHN ANDREWS,

July 25th, 1890. Patten's Mills, Wash Co., N.Y.

THE "REVIEW."

SOME OF THE TOPICS IT HAS DISCUSSED.

"The Production of Comb Honey," was the special topic of the April number.

"How to Raise Extracted Honey," was discussed in the May issue.

"Comforts and Conveniences for the Apiary," were named and described in June.

"From the Hive to the Honey Market," was the topic of the July issue.

"Marketing," will be the special topic of the August number.

The "Review" is published monthly, at 50 cts. a year. Send for samples (free) and see if you can afford to be without it.

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.

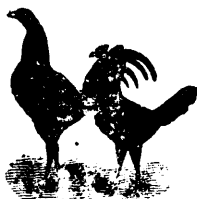
FOR TRUE BLUE

--: CARNIOLANS --:

See our advertisement in Aug. 1 No., of this paper.

J. B. M SON.
 MECHANIC FALLS, ME.

THIS SIZE AD.



3 months..... \$3 00

6 " 5 00

1 year. 8 00

Payable quarterly in Advance.

ADVERTISEMENTS.



Safford & Kisselburgh

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

BREEDERS OF

Mammoth Light Brahmas, Laced and White Wyandottes,

Baired and White Plymouth Rocks, Black Minorcas, S C W Leghorns

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

MENTION THIS JOURNAL

WHITE LEGHORNS

My mating this season gives me a fine lot of young Cockerls which I will sell cheap, also one two year old cock, a grand bird.

Write for prices and get the best in America

R. H. MARSHALL & DUNNVILLE.

WILL. A. LANE,

Turnerville, Ont.

—BREEDER OF HIGHEST TYPE—

BRONZE TURKEYS

Write for prices of young birds in the fall.

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. | | 72. in |
| n. | 30 n. | 36 in. | 48 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 1/4 c sq ft.

D. H. JONES CO. LD.

BEEON, ONT

WHEN SHIPPING EGGS USE OUR LABEL

Eggs For Hatching HANDLE WITH CARE

Printed in red ink in bold letters. Price 25 cents per 100. Canadian Poultry Journal.

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, Cages, Distemper and Mange Cure. Wilson's Bird Store, Cleveland, Ohio.

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

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

W. COLE'S Black Minorcas. I have bred these birds for 5 years and they are as good as any in Canada, United States or England. 1889 pullets 94, 94 1/2, 94 1/2, 96, 96, 96 1/2, 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.

1890 ITALIAN QUEENS from imported or home bred honey gatherers. Each 75c. six \$4.00. Order now, pay when queens arrive. W. H. LAWS, Lavaca, Sebastian co. Ark.

FBI END. Look here! Italian Queens for sale: untested 45 cts. each; tested 85 cts each; one frame brood 50 cts; three-frame nuclei, with Untested queen, \$2; with tested queen \$2.50. E. S. VICKERY, Hartwell, Hartwell co. Ga.

100 COLONIES of Italian bees for sale with young queens and plenty of stores; hives hold 18 frames chaff sides and 2 division boards making double ends. Write for prices stating quantity required. G. A. DEADMAN Druggist etc., Brussels, Ontario.

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.



RIVERSIDE Dairy & Poultry YARDS.

Jas. McLaren, Prop STEPHENS ST. OWEN SOUND.

Importer and Breeder of Dark Brahmas Adams strain S. C. W. Leghorns, High class fancy Pigeons, Lop eared Rabbits, Guinea Pigs & White Rat

Eggs from brahmas or W Leghorns \$2 per 13; \$3.50 per 26. To parties purchasing birds, one dollar per sitting. JAS McLAREN, Owen Sound



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

VOL. VI, No. 14.

BEETON, ONT., OCT. 15, 1890.

WHOLE No. 274

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

EDITORIAL.

A correspondent asks us, after reading what was said on page 282, last issue, whether Inspector McEvoy, "practises what he preaches" with respect to the disinfection of hives which have contained colonies afflicted with foul brood; and if not, how he can act under a law which orders that "all hives, etc., shall be disinfected." It would certainly be satisfactory to know what Mr. McEvoy does do, in the face of his expressed opinion that the continued use of such hives is harmless, and we hope he will tell us all through the JOURNAL. We have no fault to find with Mr. McEvoy's treatment so far as it goes, but we do say that he does not go far enough. We had never thought of this matter of disinfection until our attention was thus called to it.

**

Mr. T. Bonner Chambers has illustrated in the last issue of the *Record* a new joint for hive making—or rather what he considers as a new thing. It is, however, exactly the same style of tin corner as we have used in our section crates for years. We have always

found it to work admirably in there but we have grave doubts as to its being of any practical value for hive corners.

**

The attempts which have been made in England, says the *British Bee Journal*, to establish companies having for their object the buying and selling of honey have been singularly disappointing in results, and have all ended in more or less failure. It does seem unfortunate that in a venture with all the advantages of a directorate of business men, and an abundance of capital, but mainly from the want of a good steady and reliable supply of good British honey, it should be found necessary to wind up the concern after a few year's working. The B. B. J. is thus forced to admit reluctantly that honey companies will not pay—at least *not yet*. It deprecates any further attempts to infuse vitality into ventures of this kind. If the main cause of the suspension of these companies was a lack of good British honey, why was that want not supplied by the purchase of *Canadian* honey, surely our English friends are not too selfishly constituted as to fail in their endeavors rather than take honey from us foreigners? The crop has not, of course, been so abundant in Canada that we have had to look for a market, else we should probably have shipped over our surplus any way, but if our English friends had asked it, we could doubtless have accommodated them with what they needed.

GENERAL.

FOR THE CANADIAN BEE JOURNAL.

A Good Word For Carniolans.

AS we have a wet day and not much to be done outside, I thought I would drop you a few lines to let you know how I am getting along with the bees. The colony arrived here on the 20th day of June 1889 in good condition, and on the third of July it cast its first swarm, and on the 16th the second came, and on the 18th the third, and on the third day of August the fourth came away. As I wanted to increase, I hived them all and run the risk, as I was a new beginner, I attended them the best way I knew how, well, about the last of September I opened them and found all the queens, and saw that they were in good condition for the winter, having their eight frames well filled, so I took the surplus off the top and extracted 64 pounds of honey. I think I succeeded not so bad for a greenhorn. I then went to work and made five outside shells, allowing about five inches for packing around the hive. I tried three kinds of packing, wheat chaff, dry sawdust, and small shavings, and left them on their stand, and they all came out in spring in good condition. I had A. Hills device and cushion with super over them. We had a cold winter and a wet and cold spring. I may say bees did no more than keep themselves all summer. I increased to twelve and got no surplus until after the first of September. I examined them yesterday and took about 100 or 150 lbs. of surplus. I believe we will average about 25 lbs., spring count, and be in good condition for winter. You told me the queen was an Italian mated with a Carniolan drone. I believe them to be a good race of bees, prolific, and good honey gatherers, and very gentle to handle. I have often handled them without smoke, veil or gloves, without getting a sting, but the colony that C. W. Dickson got from you in the fall of '89 (we work together with them) I would not care to go and open them without veil and gloves. They were a cross of the Syrian, and were cross sure enough. I could not compare them to anything only the specie of the tiger. When they swarmed and got clustered, before you got within ten yards of them they would dart at you so thick that it would be almost impossible to see out through the veil. You could hardly tell whether swarm was on the tree or on your head. So about the last of August we took away the queens, and sent for three Carniolan queens from Pratt, of Massachusetts, and introduced them all right, and

they are doing well, notwithstanding Brother Shucks opinion of the Carniolans. I took a nucleus we got from Pratt into my yard. I got it about the last of May and it was very wet and cold all of June, so they did very little in June. They built up in July, and cast two fine swarms in August, and filled three hives. Now they are in fine condition for winter, with eight frames of honey in each. They are very gentle to handle. When I open them I find the nest sticks to their combs; they are easily brushed off, and are good workers, out early, and at work late. I had a colony that took that nameless disease in June. They would come hopping out of the hive and could not fly and their abdomen seemed swelled. They seemed to dwindle down very fast. I used salt and water, 2 oz. to one pint of water, but it did not seem to stop it very much. I then decided to kill or cure, so I went to work and put on four hands full of salt into about a gallon of water and put it into a watering can with a fine spray and opened it up and put the contents of it all on top of the frames until it was running out of the entrance. I done that twice and now they are all right and in good condition, and strong. About the first of August another strong one took the disease and were dying by the hundreds. The Carniolans were swarming, so I took Doolittle's plan took a frame with a queen cell and put an excluder on the top of the hive. She came out all right. I put an entrance on the opposite side to the main one and moved them up the country and got her fertilized all right, there being plenty of drones in the original hive. The new queen was a fine one, so I pinched the head off the sickly queen, and put this one in her place. They have a fine lot of brood now.

D. W. CULTON.

Stellarton, Picton Co., U. S.

We are pleased at the success of our subscribers whether they purchase their supplies of us or of any one else. Your recommendation of Carniolans will gladden the hearts of those who have been "backing" Carniolans against the field. For ourselves we do not prefer the pure breed, but rather such a cross as we sent you.

FOR THE CANADIAN BEE JOURNAL.

Sugar Feeding

SHOULD NOT BE TALKED ABOUT IN THE JOURNAL.
SEMI GRANULATION A WORSE TROUBLE.



YOU ask for my report, but I think there has been too much reported already for the good of beekeepers. If a farmer or merchant makes a good profit on anything, he does not publish it, but quietly pockets the

proceeds; on the other hand, if he meets with a loss through his own stupidity or mismanagement he keeps it to himself.

Advertising bee-feeders and advocating and giving methods of feeding sugar syrup for winter stores has done more to injure beekeeping than it has ever done good to those that practiced it. Twenty years ago I could sell honey, pollen, brood and all, out of the old box hives, after the bees had been sulphured, readily for a shilling per. pound. Now it is difficult to get that for the best honey, simply because the big producers brag of big yields, and the small producers grumble and get jealous of them, and attribute their success to the free use of the sugar barrel, nearly every bee book teaching the advantage of using sugar, and the proper way to do it. Is it any wonder that the public think that we make the comb and fill it with sugar syrup? I took four prizes out of five at our fair last fall, and as I was handling the honey a rich farmer came up to me and asked the price, I told him I could give him a good article at 10 cents. He replied that he used to like honey well, but of late years since people had got to making honey he did not eat much of it. And there are thousands just like him, and it is useless to try to teach them otherwise so long as they can refer to bee books and papers to back them up. I used to throw my bee-papers around so that any one coming in could see them, but I found out that several of my neighbors were noticing the sugar feeding articles and quit buying honey from me. Some remarked that it was easy to get a lot of honey by feeding syrup, and it is worse than useless to try to convince the otherwise. There are plenty of better subjects to write on, for the public eye. I could stretch this out ten yards long, but I have said enough for you to see the point.

JESSE J. LAWRENCE.

Thamesville, Ont.

We didn't get a report, which was what we asked for, but we got an article a good deal longer than reports generally are, and it contains some thoughts worthy of attention. We have seen protests just as vigorous as friend Lawrence's before, and are just as willing to give space to such expostulations, as we were to the sugar feeding articles. Will our friend tell us what he would do in case he had to feed and had no honey to do it with? Perhaps let his bees die like Mr. J. B. Jones proposed to do. By the way, we had contemplated asking friend Jones whether he intended to carry out in practice what he had promulgated in theory? We only

saw him for a moment at Toronto during the exhibition, and had no chance to chat with him. But to get back to the subject. If there is no honey to be had—or if the beekeeper who wants to feed has none, or is unable to pay the figure for it, when sugar can be obtained for two-thirds the price.—What are you going to do about it? Perhaps there has been too much said about it, but it certainly has been a necessary evil to some extent. For ourselves we have never had any difficulty in persuading people to give up their beliefs respecting sugar-syrup honey after a little chat on the subject. As a last resort we have offered to give them a dollar per pound for every pound of such honey they could ever find as coming from our hands. And people know that a respectable person or firm will not make such an offer if they are not sure of what they are saying. We will tell you what causes a great deal more trouble than all these articles about sugar feeding which you find fault with, and that is the pernicious habit so many beekeepers have of selling or exhibiting their extracted honey in a "half and-half" state. There is nothing in our opinion that will raise distrust in the mind of a customer so quickly as to offer him a jar or tin of honey half granulated and half liquid. It looks bad, and to our notion tastes worse. It has a sort of sugary taste, that to the amateur in honey eating, gives the thing right away. We have found that more people ground their charges of adulteration upon this fact than upon all others combined. Merchants who offer honey to the public would do well to keep their supply in the back ground while it is in a state of semi-granulation. If they would keep a certain portion of their stock always in a liquid state it would also be a great help. Another thing which causes trouble is, that beekeepers are careless when they sell honey in not explaining to the merchant about the system of granulation through which all extracted honey passes, so that he may in turn give the necessary information to his customers. And all this would be saved if apiarists would only use labels on their cans and jars. Thousands of pounds of honey are sold annually, and never a word is said about any change being likely to take

place in the texture of the honey if allowed to stand. Labels are so cheap now that there is no earthly reason why every package of honey that the beekeeper sends out should not have one attached—and every label should have full instructions with reference to granulation.

For THE CANADIAN BEE JOURNAL.

Uniting Bees.

IN the *Beekeepers' Review* of Sept. 10th, appears an article by friend Hasty, much of which, in my opinion, is well worth reading, but the latter part of it is not in sympathy with my views. Friend Hasty is evidently a great believer in uniting. Now, for the life of me I cannot see what we shall gain by such uniting. I am firmly convinced that I can winter a well populated five-frame Langstroth colony as easily as I can an eight frame one, providing the age of the bees is the same, and I sometimes think that a five frame colony of young and vigorous bees will winter better than a full eight frame one which has to be crowded up very much to get them into the hive. If this be the case why go to the trouble of uniting? What an increase of robbing, and what useless work? Why that danger to the queen? Let us not hesitate to destroy the bees we have no use for. It may be the more merciful way after all and the more profitable. If we could only induce beekeepers (and more particularly the inexperienced) to quit that over manipulation of the hives, much would be gained.

I agree with Mr. Hasty when he advocates feeding only with combs of honey. For five years I have only so led. This fall it will be a close shave but I will just manage; even should I require to feed a little sugar cake in the spring, I shall prefer it to this messing with honey, sugar, etc., in the fall. In closing, let me say, that the honey flow in this section since September 1st has been no more than sufficient for present requirements.

R. F. HOLTERMANN.

Rouney, Ont., Oct. 6, 1890.

The article on wintering by Mr. Hasty, is reproduced in its important parts, in our "Cappings" Department.

For THE CANADIAN BEE JOURNAL.

Selling Cut Up Sections.

I COMMENCED the season of 1889 with 21 Colonies, increased to 27, took 1,600 lbs. extracted, and 300 pounds comb honey—1,900 lbs. in all. Sold most of the extracted during the winter at 12 cents. I took most of my

comb honey to the Ridgetown Agricultural Show, and sold it on the ground, cutting it up into pieces (four to each section) selling them at five cents per piece, each section weighed three-quarters of a pound. They sold like hot cakes.

CARNIOLAN BEES.

I see a great deal has been said both for, and against the Carniolans. Some beekeepers claim that they are very cross, and are not good honey gatherers. I received an untested Carniolan queen from John Andrews of New York, and she proved to be a good one. The bees are gentle and are good honey gatherers. I raised two daughters from her last year, and I have now three colonies of Carniolans. Of course the two I now have are mated with Italian drones, but the queens are splendid layers.

HONEY BOARDS.

I think that honey boards are indispensable in the apiary, and I shall not in future try to get along without them. I prefer the break-joint wood and zinc board, I confine the queen in the brood chamber and I never extract from it. The honey is also of a better quality when taken from combs in which there is no brood. I have found that the honey in the close proximity of the brood nest is often quite thin.

PLANTING BASSWOOD.

Last season I planted 31 basswood trees, and I will probably plant 60 or more next season. It won't be many years before all the old trees are gone from this section.

HENRY PARKER,

Morpeth, Ont.

Recent Patents.

A PATENT has just been issued to Mr. Nelson C. Petrie, Cherry Valley, Ohio, for a Bee-Swarmer, (No. 437,451). The claims made are as follows:

1. The combination of a box having perforated sides, and having at its top the cover formed with the series of openings adapted to permit of the passage through them of the workers, but prevent the passage of the drones and queen, the horizontally disposed conical tubes removably fitted within the box, and having their apexes pointed in the same direction, and perforated guideways having each an open side and leading from the ends of the box to the mouths of the hive.

2. The combination of a box having openings in its ends. A perforated trap door in its top, and provided with perforated sides, the perforator guide ways leading from the end openings to the mouth of the hives, conical tubes removably fitted in the box, and a vertically-swinging partition within the box.

For THE CANADIAN BEE JOURNAL.

Learning the Business.

WE agree with Mr. Scott on page 1002-3, where he advises those intending to engage in bee-keeping for profit to spend a season at least, with some successful apiarist. A great many persons though, expect a young man to spend a season in their employ in order to learn the business, but he is to receive no wages for his labor unless he wishes to work extra hours. This I would not advise any person to do if they are in close proximity to a successful bee-keeper. A few colonies could be purchased, and he could then no doubt make arrangements with his friend to take them on shares, but he should be sure to take the opportunity of visiting him as often as possible during the busy season and while there to ask all the questions that are thought necessary. In the meantime, he could be studying some of the best books on apiculture, as well as carefully perusing some of the leading journals. I am acquainted with three young men, two of them spent a season as students, the other followed the plan that I have above stated. The result is that one of the two is about out of the business, while the other is making a success of it. But I cannot see that he is any more enlightened or is succeeding any better than the one who spent the season at home.

J. B. KITCHEN,

Weidmann, Ont.

Honey in France.

A FRIEND of ours, who, by the way spent a year here at Beeton with us, but is now located in Bordeaux, France, writes us on the subject of opening a market for our surplus honey in that country. This young man has travelled extensively in various parts of the world, and is possessed of sufficient knowledge of the subject to speak intelligently and with confidence. He was in London at the time of the Colonial and Indian exhibition, and he knows just how our Canadian honey took with the English people, (he comes from Sheffield, himself), and he can see the possibilities we have over the English channel. In a good season, with lots of surplus—more than we could dispose of advantageously in our own country—there would be no harm in trying the experiment, but with the average yields of the past few years, more profit can be obtained by disposing of the crop at

home, for which there is a steady demand.

"I don't know if you were represented at the Paris Exposition of last year. If so you will know that honey is one of those few and far-between imports admitted exempt from duty into France. This fact has often struck me as strange, seeing that sugar is heavily charged and consequently retails at 6c. per lb. (the cheapest), even poor quality brown or West India sugar, such as in England costs 1½c. per lb. sells here for 6c.

When I say honey is exempt, I find I make a slight error; shipped from England it is exempt but shipped from Canada or America it falls under another tariff scale, and is dutiable to the extent of 10 francs (8s. 4d.) or \$2 per 100 kilos, that is \$2 per 240 lbs. roughly, the kilo being 2 lb. 3 oz. 4,428 dr. avo. This figure therefore is almost nominal.

The inducements are not few, everyone knows what a "sweet-tooth" the Frenchies have, the sweets eaten at New Year being tremendous, prices ranging from 1/3 to 5s and 6s. per lb. Honey from the south, with no aroma or flavor to be compared with most of your brands, is retailed in a half hearted way at 80 centimes (or 8d.) for a tiny glass and no name or label. A little comb is sometimes to be seen in the fashionable foreign goods stores, of course at fashionable prices. Again, the pastry cook's art here is a fine art, such wonderful creations he turns out, all shapes and colors; "plum cake" the old homely English dainty isn't in it, or if it is, it is completely hidden in the sugary rinds or gewgaws that the cook artist thinks essential to bring customers, as these morsels you can imagine are pretty stiff things to pay for. Well, for all this sweet stuff, it seems to me that if honey could possibly be sold cheaper than sugar (wholesale) pastry cooks would be too glad to substitute it. Again, there is very little push and enterprise, any show of spirit and venture (as far as a superficial view goes) on the part of French retailers. For one thing it is quite a rarity to ticket their wares with the price. They prefer the customer to ask, and — they quote just what they think they can get. I do a little shopping myself and I rarely find anyone who seems to have heard of that good old motto "small profits quick returns." They are too grasping and short-sighted as a rule. Now if some one, up to business, were to open up on the English style—all above-board, one price for all and that the lowest, have his goods attractively got up and displayed, a judicious bill here and there informing the novelty loving public that "hitherto undreamed-of ad-

vantages were now within the reach of the poorest, etc., etc., I feel no doubt he would sell, and that quickly, no matter what the goods—(I have seen a stock of patent (miserable) pens go in a few weeks, pushed by a man who rented a little shop in a main street, and exhibited clever feats of penmanship, with the pen and a glib tongue at same time. He had a crowd always round him). At first start in your case, you could do as in London, offer samples free, but the tempting little tins at a low price and with those gay colored labels would be sufficient here more than with English people, to sell themselves. Heretofore honey has been a perfect luxury. Even molasses has a tax on it whether from England or America, of 4 times that on honey, and it is consequently unknown as an article for table use by the poor.

Now it strikes me that in some of your heavy seasons it might be worth your while having a market out here which you could count on, if this less than a cent per lb. duty, shipping and selling expenses would permit you to offer it at a really popular price. To make the start I would say offer a commission on sale to one of the English grocery stores here, which are patronised by the English residents (200 to 300) and many of the French also. If it "took," appoint an agent to work it among the pastry men whether for use in their art, or for sale in their fashionable stores where all kinds of dainties (except honey nicely got as a rule) are exposed. Or in the last place, join expenses and profits with a man who would open out a honey store on the principles I have above mentioned. If in such store any French Canadian wares would also be sold that would form a special attraction and interest besides a possibly extra source of profit, "*Suco vegetaux desseches non denommes*," I find in the tariff of duties, is exempt both as regards England and America. Well, the translation of this item is *direct or evaporated vegetable juices or essences* (sap) under which head surely maple sugar could be classed, and which is not mentioned otherwise in the tariff. This delicious sweet would be an acquisition here.

FOR THE CANADIAN BEE JOURNAL.

Judging at Fairs.

AS by the time this article is printed in THE CANADIAN BEE JOURNAL all judging will be over, and we have another year's thought before us should we be spared, permit me to make a few remarks upon judging. Until the last month I never had to perform the painful task of judging honey in an official capacity. That the position is honorable, if honorably performed, we all think, but that it is a painful

task, if we desire to do justice to all, those only who have acted in the capacity of judge alone can tell.

I believe to judge rightly we should commence at home and carefully study the wording of the list upon which we are to base our judgment. If the wording is doubtful, as for instance the "etc." in the London prize list is, and for which those getting out the list should be censured; also such wording as in the Chatham Peninsular Fair, "for 20 lbs. of comb honey put up in old style," and for which those progressive apiarists, Messrs. W. A. Crysler and J. A. Foster offer special prizes. I say, if the wording is not perfectly distinct, then the judges should go to the Directors and ask them for an interpretation of the doubtful clauses. Next, judges should abide by the prize list. For instance, as it was in our case, there is no provision for withholding a prize from an article of not sufficient merit, it simply says 1st and 2nd prize for first and second best, and while some were in favor of withholding the prize, others maintained that the duty of the judges was to award prizes according to the rules placed in their hands, namely the prize list. In the same way it is a departure from the sphere of a judge, when there are five prizes offered, and they create a sixth and seventh prize, unless the sixth and seventh are equal with the fifth. The laws placed in their hands are to give a prize to the first five, and it is out of their power to revise the list after the competitors have paid their entrance fees upon a different understanding. I believe so far, upon reflection, every one will agree with me, that the last one is one not generally accepted; that is, that a judge after performing his duty may go and point out the reasons for certain decisions, and yet, why should he not, and how often may it not be of benefit to the exhibitor, and to the judge too, as far as uncharitable reflections are concerned on the part of the exhibitor. I do not for a moment hold that the judge should enter into any argument with the exhibitor, no more than that the judge on the bench should do so when he gives the prisoner his sentence, and at the same time state his reasons. Now, I trust no judge, and more, no exhibitor, will think I am driving at individual cases in the above remarks. Such is not the case. My desire is that if I am right, others should benefit by correct lines upon which to act, and if the lines set forth are not right, I am open to conviction and hope to be set right.

R. F. HOLTERMANN.

Romey, Oct. 6, '90

Mr. Holtermann has probably in-

tended to talk on the subject of judging on general lines, but what he says has brought to our mind the mode pursued by the judges at the Industrial where the sweepstakes prize (given in part by the Ontario Bee-keepers' Association), was cut up so that some six of the exhibitors participated in it. While we believe that the judges did just what they conscientiously conceived to be right, yet we doubt the wisdom of splitting up prizes as they did it. Besides being a bad precedent, it looks to the casual observer as an evidence of weakness on the part of the judges, or that they were desirous of pleasing everybody. On the merits of the decisions in question we are not prepared to judge, not having gone into a close examination of the exhibits, but from conversations with one or two of the exhibitors, we know they would have been better satisfied to have had even a lesser prize, and had the undivided honor. Let us again say that in what we have written, there has not been the remotest desire on our part to impugn the motives of the three gentlemen who acted in the capacity of judges, to the very general satisfaction of all concerned.

We are satisfied that there are many instances where the judges do not study the prize lists before entering upon their duties, as stated by Mr. H., and such carelessness is the cause of very much dissatisfaction. We have had instances of such admissions on the part of judges: It should not be so.

FOR THE CANADIAN BEE JOURNAL.

A Young Apiary.

PERHAPS some of the Western bee men would like to hear from a young fellow down East; perhaps not. I am going to write at any rate whether you like it or not. Some six or seven years ago neighbor Smith kept the old black bees in very ancient looking hives. Frequently I would take a stroll over to his apiary, and at leisure time would he down to watch his busy bees. You know I was always one of those curious fellers who, when he saw anything new, was never satisfied till he saw what was inside, so I would watch every chance when Smiths' back was turned to have a peep inside. I often used to think, too, that he had some means of either sharpening their toe nails or giving them to understand that I

wasn't wanted around there as they would stick very fast to me at times, thus giving me an opportunity to stand on my ear or to roll in the patch of corn near by while a little distance off, Smiths' family might be seen laughing till one would imagine that they would never come into shape again. It was more than fun, too, boys to get the poodle dog alongside the hive and persuade him that the entrance was a mouse-hole. I tell you he wouldn't sniffle there long before he would be going in a hundred different directions at once, and howling as if he had colic and a dozen other diseases combined. All this time I would be lying my full length on the ground (an easy position for a good laugh), paralyzed as from an overdose of laughing gas. Notwithstanding all my trials I became attached to the bees, and resolved to try the business myself. My father kept a carpenter shop in connection with other farm outbuildings, and here at spare moments I built a hive from my own ideas, the shape and dimensions of which I will omit. I had no money to buy a colony, so when Smiths' swarmed I went out and begged a few from him which I considered would give me a good start in business, but lo! when I visited my hive the next morning it was empty, whether Smith stole them or not I cannot tell. I next concluded to visit the hay fields and gather some bumble bees as we called them to fill my hive, but found after laying in two or three lots that they began to quarrel and that I got my fingers bitten too often when trying to settle any dispute, so at last I let them go. Smith then offered me a swarm at a reasonable figure, to be paid by instalments, which I thought very fair, and was once more a happy "kid." I had great luck for three years when my colonies numbered seven, which I considered safe to winter on the summer stands, but the winter proved unfavorable, there being almost continuous rain, which swept every colony out of existence. When I gazed upon the heap of ruins in the spring my feelings can be better imagined than described: however, the hives were stored away and nothing more done in the business until last April, when I purchased two colonies from Jones Co., Ltd. They were a month later arriving than I expected, and I have had a very poor season right through. The clover yield has proved a failure, and early frosts have destroyed all hopes of a fall flow.

I obtained some good surplus honey for our exhibition, which captured prize money, and have now five colonies well supplied for winter.

F. GILL,

P. O. Dept.

Charlottetown, Oct. 8.

CAPPINGS.

FROM A VARIETY OF COMBS.

Erroneous Ideas Concerning the cure of Foul Brood.

AT a convention held in Michigan a discussion was held on Foul Brood and in the report which appears in the *American Bee Journal* we find the following.

Secretary Smith gave a description of the disease and the effect of the different acid treatments recommended as palliative remedies, the McLain plan almost curing infected colonies. He concluded by recommending what is known as Jones' process, but given by Father Langstroth in his work on the "Honey Bee," as the cure recommended by a German apiarist. The success is described as follows:

"Drive out the bees into a clean hive, and shut them in a dark place without food for 24 or 48 hours. Prepare a clean hive properly fitted with comb (preferably clean frames with foundation) from healthy colonies. Transfer the bees into it, and confine them two days longer with pure honey."

There are one or two inaccuracies in the paragraphs which should be corrected, else any who try to cure by the method here given will fail miserably. We have never recommended that bees should be fasted only 24 hours that we know of, at least any such statement from our pen has not been one of intention; nor can we find any such cure in the copy of Langstroth (1859) which we have by us. Fasting the bees from 25 hours to 48 hours simply means (with a possible exception) continuing the disease in the apiary, if not for the present time then for a future one. There are conditions when starvation for 36 or 48 hours would accomplish the desired end, but the cases are exceptional. We have known instances where the honey sacs of the bees have been well filled, where after starvation of six or eight days honey has still been retained by some of the bees in the cluster, or been found in comb which they had built in the box or hive wherein they were placed for fanishment. It is a common occurrence to have colonies commence building comb in the fasting box; we have on occasions found as much as a square foot of comb in the heart of the cluster, and a good deal of honey in the cells too—after four days of fasting.

We have taken the honey so found and fed it to clean nuclei, which became diseased almost immediately, proving conclusively to our mind the mode of transmission of the disease. The condition to which we alluded above, when a short period of fasting might be sufficient is consequent upon the care which is taken in the removal of the bees to the place of confinement. If the work of shaking the bees off into the combs be done in the evening or in the cool of the morning, without disturbing them previously in any way—by smoke or otherwise—so that they may not gorge themselves with honey, therefore going into confinement with but little honey in their sacs, a shorter time will be required to enable them to dispose of the honey they take with them, and the sooner will they be ready for the next stage of the treatment. It will be seen from this that without explanations the statements as made at this convention might be conducive of a good deal of harm.

UNITING BROOD INSTEAD OF BEES.

G. M. Doolittle explains the system of uniting bees which he prefers in the last *Review* as follows.

The latter part of August select as many colonies as you wish to winter, making this selection according to those having the best queens, best combs, hives you wish them in, or from and preference whatever, when you are to go to the ones you do not care to keep and take all but a very little brood away from them, dividing this brood among those selected for winter. In doing this I take the bees along which adhere to the combs of brood, being sure I do not have the queen. If the queen is of no value to me she is killed, and the bees left to store fall honey if there is any. In ten days the queen cells on the little brood left are destroyed, and when the honey season is over the few old bees remaining are killed, when we have the combs ready to store away, after the honey is fed to the bees, should they require it. In our hives selected for winter we have plenty of bees hatching for the next twenty-one days, which bees are the ones to go over winter, and with me prove of a better use to stand the winter than those hatched either earlier or later. After practicing this way of uniting for several years, I must say that I like this uniting in the brood form much better than in the bee form."

OUT APIARIES, HOW FAR APART.

The subject for treatment in the *October Review* will be "Out-apiaries,"

and one of the principal features of the discussion will be "How far apart shall they be located." Mr. Hutchinson says:

"We have been told repeatedly that, ordinarily, three miles mark the limit of a bee's foraging grounds, hence, if apiaries were placed six miles apart, there would be no encroachment. But it must be remembered the pasture ground of each apiary is circular in form, and that they might be moved towards each other to considerable extent without one encroaching upon the other very much. Lay two silver dollars side by side. Lift the edge of one and slide it over the other. Notice how far it may be pushed over without covering a very large portion of the under dollar. Just so in establishing out apiaries; they may be nearer together than one would imagine. We believe that four miles is plenty far enough apart. We cannot always secure the exact spot desired for an apiary, hence we should not hesitate to shorten the distance to three miles, and, unless the apiaries were large, we think the loss by so doing would not be material.

Providing that the out-apiaries are not going to be too large—say not over 100 colonies—and there is a fair amount of pasturage a distance of three miles from the home apiary will not interfere at all. For years we had two out-apiaries within less than that distance of our home yard—one two miles west, the other about three miles north—and we are quite satisfied that none of them encroached to any appreciable extent on the home field. We occupy neither of these at the present time—our lease for both having expired—and we notice no difference.

BEESWAX FOR MAKING SCREWS AND NAILS PENETRATE WOOD.

A correspondent in *Gleanings* asks the editor if he ever tried putting a little beeswax on a nail or screw that he wished to drive into hard wood. The editor mentions that the idea is known to some extent, and instances a case of his own where the use of wax assisted very much.

"Some time ago we purchased a new and expensive machine for punching holes in our A B C books for writing the paper covered ones. The machine could not be made to work. There was not power enough in the thing to push the awls through such a great quantity of stiff, hard paper. One of the girls, however, suggested that we first push the awls through a very thick sheet of beeswax, I do not know where she got the idea, but, presto! after they had been waxed they went through the whole book without any trouble at all.

MILLER'S METHOD OF INTRODUCTION.

Dr. C. C. Miller writes on this subject and gives a plan of introducing which will be accessible to any one. He also writes regarding baiting sections, which is also reprinted below:—

The plan of introducing queens by means of the Peet cage, letting the bees eat through the candy, thus liberating the queen, presents some advantages over any other method I have tried. It is especially advantageous in an out-apiary, Kill your old queen, put the new one caged in the hive, and if you don't look at her again for a week it doesn't matter. But the Peet cage doesn't work equally well in all hives, for the simple reason that there is not room for it. My hives have flat board covers, so there is not room between the top-bars and cover, and the only way to do is to put the cage between the combs, which spaces them so far apart as to make trouble.

I send you herewith a simple introducing cage that I have been using this season with a great deal of satisfaction. It is not a shipping cage, of use only for introducing, but it takes up so little room that, if left between the top bars or combs for a year, no great harm would be done. Generally, however, I push it into the entrance of the hive, under the bottom bars, and prefer this unless it is so cold that there is danger of chilling the queen. It is so simple that any one can make it.

Take a block 3 inches long, $1\frac{1}{2}$ wide and $\frac{3}{4}$ thick; two blocks 1 inch by $1\frac{1}{4} \times \frac{3}{8}$; two pieces of tin about an inch square; a piece of wire cloth $4\frac{1}{2} \times 3\frac{1}{2}$; 2 pieces of fine wire about 9 inches long, and four small wire nails $\frac{1}{4}$ or $\frac{3}{8}$ long. That is the bill of material. Lay down the two small blocks parallel 3-8 of an inch apart, one piece of tin under an one over them. Nail together and clinch. These two blocks, being 3-8 inch apart, make the hole to fill with good candy, through which the queen is liberated. A good way to make sure of having this cage all right is to lay between the two blocks, when nailing, a third block 3-8 square. Put this nailed piece at the end of the large block, and wrap the wire cloth around it, letting it come flush with the end of the small piece, and it will come within about half an inch of the end of the large piece. Wind one piece of wire within about a quarter of an inch of one end of the wire cloth, and fasten by twisting, and wind the other wire at the other end. Play the large block back and forth a few times, so it will work easily in the wire cloth, and trim off the least bit of the corners at the end of the block so it will enter easily. To provision it, let the large block be pushed clear in, fill the hole with candy, and tamp it down. When to be used, after putting in the queen, push the block in far enough to allow the queen a room about $1\frac{1}{2}$ inches long. After the bees have had it for some time it will be so glued that the plug must be scraped off before using again. There is nothing brilliant about this cage, and nothing really original, but it has the merit of such simplicity as to be easily made by any one, and of being of such size and shape as to be used where others cannot be used.

BAIT SECTIONS FINISHED FIRST.

This year I had some 250 of last years unfinished sections used as bait, one in a super; and after the general report that such sections were filled first and finished last, I was quite interested to notice how mine would come out. Invariably these bait sections were commended first, just as reported. And almost as invariably these sections in the supers were the first ones to be finished. I think there were two or three of the 250 that were not first completed. Moreover, they are nice sections, but not quite so nice as the others. Now, why is it that the general agreement has been that these sections were last to be finished, and would better be thrown away? The only reason I can guess at is, that some honey, if only a little, that was granulated and dried, was left in the sections. When I first used bait sections I thought there must be some honey left in them and such sections, when finished, had a watery appearance especially after being taken off the hives for some time, when the honey was inclined to ooze through the cappings. I suspect the old honey, perhaps a little sour, acted somewhat as yeast. At any rate, I should not like to get along without bait sections; but they must have no honey in them, and must be cleaned out thoroughly by the bees.

WRITING AN ENGLISH PLAN.

From the *Record* we take the following written by S. J., St. Buenos' College:

1. In the case of frame hives having their combs running parallel to the entrance, I have acted as follows:—1. Contract one stock towards the back, to half or more its frames, by means of the divider, fronted for the present by a dummy-board. This divider need be nothing more than a sheet of perforated zinc, bee-proof all round, and nailed to a strong thin lath the length of a top bar. The divider should be hung against the imprisoned bees, wood inwards, so that when the dummy is placed against it no space is left between up which bees can pass. 2. Until the bees have nearly all drawn in;—and keeping the hive cool will help to that end—let the divider and dummy be both kept up a little, so that the bees can pass in beneath. Where metal ends are used, the divider, wood inwards, may be hung on them. In the case of alternating distance-pins, I should extract one, if possible, for the present; or, if wooden shoulders, I should—well, I should manage somehow. 3. The bees having mostly gathered in, promptly but quietly let down the divider and remove the dummy, and now be very careful to secure the quilt against being pushed up by the bees, for they will try hard, especially next morning; drawing-pins are excellent for this purpose. 4. Place the hive on the stand of the other stock, and transfer to it from the latter and brood combs as a matter of course, and food combs by preference. Obviously, for ventilation's sake, the imprisoned bees should have a larger proportion of combs, number being about equal. 5. If there is to be a choice or not between the queens, one ought to be first found and caged over frames until the last-mentioned step, when she may be removed, to be killed, sold, or used for a queenless

stock as required. If she cannot be found the two may be left to fight it out a *l'outrance*, without much hazard. 6. Keep the prisoners cool, even at night, but not cold. 7. Next day to uniting move the hive midway between the former positions, with another remove the day after if desirable. 8. Thirty-six hours, at least, after incarceration unite the two lots by quietly withdrawing the divider. This will be all the more easily accomplished if two quilts have been used, meeting or overlapping each other at the divider.

II. Where frames run at right angles to the doorway the process is identical, except that the divider and dummy are set down at once to the floor-board, and that part of the doorway left open to the bees is closed tight towards evening with a rag or the like, if the doors, as is usual, are not made so as to do so.

III. Stocks driven from skeps or swarms are left on their stand until the frame hive is ready to receive them. If there is an insufficiency of drawn-out comb or full sheets of foundation at this season of the year, they should be supplied with their own combs mounted in frames—at no time, however, an easy task as regards their future security. They must on no account be supered over a stock, except between combs where top ventilation can easily be afforded them, and even in this case care must be taken to have air-space beneath the whole divider. By neglect of these precautions I killed a small lot of driven-bees supered in a box.

WINTERING TWO COLONIES IN ONE HIVE.

The article referred to by Mr. Holtermann on page 292, this issue, is as follows:

I am not entirely sure that my way is the best way, but it is one way. I never feed—or, say, hardly ever. It is not that I have made any solemn resolution never to do such a thing, but I do have a decided inclination to get rid of it whenever I can; and I pretty much always can. I think I never fed a colony to winter them as the fraternity understand the term "feeding." My feeding is to set in combs of honey.

So the problem is to simmer things down in such a way that their scant supply, scattered through seven or ten combs—or twenty—less here and more there, sometimes less everywhere, will tide things over until flowers bloom again, without the unpleasant murdering of bees. The first natural principle we can catch hold of, to help us, is that, practically, honey is spent mostly in warming up their quarters, and that putting two colonies in the same quarters reduces the honey needed during the first half of the winter, by nearly one-half. After breeding gets well begun in February things are on a little different footing; but there is still a gain in the "double-house" tactics. I am not now talking of uniting—will talk of that by any by—but of putting two colonies with two queens in the same hive by means of an enamel cloth partition. The second natural principle we can tie to is that during the latter part of winter honey is spent largely in rearing brood; and that the advantage of winter brooding is rather problematical at best; and that they will raise much or little according as they have much or little honey in store. Don't let them have very much

at any one time, and they will be saving. I quarrel with the teaching that a colony should be provided with twenty-five pounds of honey, or even twenty. I am well pleased with twelve pounds, and not troubled if it is only eight pounds, and sometimes I send them into the winter with as few as four pounds. Of course you understand there is more in the comb closet ready to be put in when their scanty supply is gone.

Now as to the mode of operating. You may suppose, if you please, that I have obtained somewhere in the apiary ten combs with at least a pound of honey in each, and that I have them in the carriers, sitting in the house in a warm place. I prepare an empty hive (as hereinafter stated) and bring four colonies in their hives and set them conveniently near. As a next move it is sometimes best to wake the bees up thoroughly by smoking them. Sometimes it is well to smoke them quite awhile before the rest of the operation begins. Sometimes it is best not to smoke, except the few puffs usually given when taking out frames. The weather, and the mood the bees happen to be in, will determine this. Two of these colonies are to be united with each other and put on one side of the partition of the empty hive, and the other two in like manner on the other side. Into one of the apartments put two combs from the carrier, placing them on the outsides, with room for the other three between. Open two of the colonies and shake a frame from each directly into the apartment, between the combs. If the first frames are not well covered with bees use two from each. Next put in the three center frames and close the top. Shake the rest of the bees in front, running them in much like a swarm, only continually mix them by taking from each hive alternately. It is to defend their home that bees fight, but in the predicament that these little fellows find themselves in a strange hive, all the combs with a foreign scent, and themselves mixed with strange bees, they do not feel that they have anything to defend. While filling the first apartment a piece of board is temporarily fastened in front, dividing things into two front yards.

At the end of the operation I have twenty-eight combs out of which to select ten for the next batch of colonies. The remaining eighteen are hung in the comb closet, to be swapped as they are needed in the spring, or during mild days in February. If the colonies are weak, as at the end of a bad season many may be, put in three colonies on each side. You don't know what a lot can be got in until you try. In this latter case there will be forty-two combs to choose from, and thirty-two to put in the closet.

I have never yet had my combs so empty, in the fall that I could not by selecting the heaviest make this method work. I have a location in which (owing to large pollen resourcement, I suppose) bees multiply like mice. On this account the large reduction in the number of colonies does not signify as much with me as it would in some apiaries. The average yield of honey per colony in this region is so small that it absolutely wont pay to feed sugar in such quantities as often advised. It is every man's business to know his own location, and to keep his knowledge in mind when laying his plans.

If it will pay to buy twenty pounds of sugar per colony, why do so. If you know pretty well it will not pay, the above plan avoids the destruction of bees, and keeps things in shape that one can quickly get back to the original number of colonies in the spring if he desires. One year I used a modification of this in which six or eight colonies were put in one hive without any partition. This of course sacrifices many more queens, and is less desirable on that account.

I do this work rather late in the season, and I have found so few bees to insist on their old location that their is no serious trouble on that account. It is well to leave the stand they were taken from without any hive there, else bees might gather in on warm days.

As to queens, I have a strong impression that the queen survives when all are shaken together, and that my selection is very apt to be incorrect. If you wish to destroy the superfluous ones yourself it is better to do that part of the work on a previous occasion. Let me state my theory as to why the best queen survives in a contest. It may not be correct. Victory depends not on strength, nor on agility, nor on luck, but on which queen first becomes infuriated enough to sting. And this again depends on the amount of real vitality and vim the lady happens to have in store. It looks reasonable that a poor declining queen should have comparatively less of that peculiar royal jealousy which distinguishes queens.

Bees packed in two chambered quarters soon seem to acquire a common scent, or at least to get used to each other to such an extent as to feel at home on either side of the partition. If the honey is unwholesome, and the bees dwindle, most of the survivors are apt to collect on one side, leaving on the other only the queen and a nucleus of bees. This is sometimes a disadvantage, but sometimes an advantage. In setting them apart in the spring you can let the weaker lot keep the homestead, and set the stronger lot in a new location. Bees enough will then return to do considerable towards evening up things.

Now as to preparation of the hive. I have elaborate bottom boards for winter, with sawdust bedding, small open chamber, vertical entrance, and various do-funnels which I do not think important enough to recommend. The ordinary bottom boards, a simple partition, and two bits of wood to close the rabbits on each side where the partition comes up, will do, I think. The partition is an outline of thin strips of wood holding two thicknesses of enamelled cloth. Bees on each side cuddle up against it and form what in reality is but one cluster, although each side has its separate queen. Thinly shaved wood, will, I presume, do well for partitions. Have the combs quite a little further apart than in summer providing you are going to have bees enough to fully occupy the room. If not, better leave only about the usual space. A space will hold more bees than most of us are apt to plan on. If the hive is a small one, and will not hold ten frames with a partition, I put in only four combs in each apartment. The very narrow eight frame hives I presume cannot well be used, so the brethren who have no other hives than these will not find my plan of any utility to them."

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.

Bees on Shares.

QUERY No. 281.—I wish to let my bees out on shares next year. What should I give my attendant when I find everything but foundation?—N. W. M.

G. M. DOOLITTLE, BORODINO, N. Y.—Just what you and he can agree upon.

R. MCKNIGHT, OWEN SOUND, ONT.—Whatever you and he agree upon. "Circumstances alter cases."

DR. MILLER, MARENGO, ILL.—I've no experience in such matters, and I'm afraid one of you will wish you hadn't had any.

PROF. A. J. COOK, LANSING, MICH.—Ask D. A. JONES. I should say each should share and share alike.

J. F. DUNN, RIDGEWAY, ONT.—If your attendant is a competent apiarist give him the wages of a skilled mechanic and keep all the honey. Don't let your bees out on shares.

JAMES HEDDON, DOWAGIAC, MICH.—Would not try to answer this question. Everything depends upon various minor affairs of which I have no knowledge.

H. D. CUTTING, CLINTON, ONT.—Why don't you say how many colonies you have, as that makes so much difference. If you have 100 colonies and furnish everything, your attendant should have one-half of all honey.

J. K. DARLING, ALMONTE, ONT.—Well, I don't know. If the season was as bad as it has been with some of us this year, you would need to give him all he made and part of the original stock, if you wished him to make a living out of it.

G. W. DEMAREE, CHRISTIANBURG, KY.—This is a difficult question to answer, not knowing the parties, the locality, apiarian fixtures, etc. I would not take all the risk of a bad season and handle your bees for less than one-half of the surplus honey. And then something would depend on what is embraced in the word "foundation." A great deal might depend upon how much foundation was necessary.

J. E. POND NORTH ATTLEBORO', MASS.—This is one of those questions no one can determine unless more is known than is stated in the question. Circumstances, conditions and average results from year to year for a term of years should be given in order to make a problem that, I for one can understand. Knowing no more

than the question states, I can no more give an intelligent answer, than I could to the question, "How big is a piece of chalk?"

A. B. MASON, AUBURNDALE, O.—Oh, dear! I don't know. About Nov. 1, 1891, tell us how many days work the attendant has given to the care of the bees, how much increase there has been and how much honey secured, and we will try and tell you. In this locality, with 100 colonies, the attendant should be furnished every thing (foundation and fun included), and have all the surplus, all the increase and the original stock, if the season should be like two of the last three years, and if he is a nice young fellow, and you have a nice young daughter that will make him a good wife, give her to him too.

A. PRINGLE, SELBY, ONT.—You will scarcely be able to find two bee-keepers who will agree as to what is right, fair, and equitable in the "shares" business with bees. Make your own bargain and let every point be distinctly understood, and then if each carries out his side of the contract and both are reasonable men there will be no trouble; otherwise there will. I took 50 colonies of bees "on shares" one time and kept them three years. My own terms were accepted by the owners without a word of discussion and we never had a word of difference or dispute. The terms were the following: I took the bees, managed and handled them, and gave the owners one-half the increase and one-half the honey. They supplied their own hives, foundation and empties for their honey—I did the same. I managed the bees to suit myself without any dictation as to amount of increase, comb or extracted honey, or anything else. They ran their own risk of winter losses, spring dwindling, etc. They delivered the bees to me in the fall and took them away in the fall when I gave them up. They were well satisfied and I was well satisfied with the results, with the exception that they wished me to keep the bees on longer, which I could not do as my hands and head were too full of my own work. Now, this basis of the "on shares" is before you, to follow or not follow as you may think it right or wrong. I thought it fair and equitable, or I should not have proposed it. They doubtless thought it so or they would not have accepted it.

THE EDITOR.—Without further particulars it would be difficult to answer your question. The best way in our opinion is to hire a man and pay him by the month. You will make more in the end—if you get the right sort of a man, and the season is an ordinary one.

The Spacing of Brood Frames.

QUERY No. 282.—What is the proper distance for spacing brood combs, (*i.e.*) how far apart should they be from centre to centre?—E. H. N.

H. D. CUTTING, CLINTON, ONT.—1½ inches

J. F. DUNN, RIDGEWAY, ONT.—I prefer 1½ inches.

G. M. DOOLITTLE, BORODINO, N. Y.—One and one-half inches.

DR. MILLER, MARENGO, ILL.—I don't know. Possibly $1\frac{1}{8}$.

J. K. DARLING, ALMONTE, ONT.—Spring $1\frac{1}{4}$ to $1\frac{3}{8}$ inches. Summer $1\frac{1}{2}$ to $1\frac{3}{4}$ inches.

A. B. MASON, AUBURDALE, O.—If I could have the combs hang perfectly true, I would have them $1\frac{1}{2}$ inches from centre to centre.

EUGENE SECOR, FOREST CITY, IOWA.—Exact spacing is all right in theory, but next to impossible in practice with naturally built combs.

G. W. DEMAREE, CHRISTIANBURG, KY.—I space my combs not less than $1\frac{3}{8}$ nor more than $1\frac{1}{2}$ apart from centre to centre of the combs. Perhaps if combs are to be worked in a fixed position, as is the case with close end frames, $1\frac{3}{8}$ is best for the brood nest. But I do not like fixed frames. I want the frames in my surplus cases fully $1\frac{1}{2}$ inches apart, and for this reason, and for many reasons, movable hanging frames are best.

J. E. POND, NORTH ATTLEBORO', MASS.—My rule is to space ten frames equally in a hive $13\frac{1}{2}$ inches wide. I use an "L. hive" $14\frac{1}{2}$ inches wide, with a dummy $\frac{1}{2}$ inch thick, spacing equally. This, I believe, will give the best results during the honey gathering season. I use frames $\frac{1}{2}$ inch wide top bars. In winter I remove the dummy and one frame, and space the remaining nine equally.

A. PRINGLE, SELBY, ONT.—From one and three-eighths to one and one-half from the time they are first fixed up in the early spring after being set out till the flow for surplus is over and the in-gathering of winter stores commences. The rest of the season and through the winter a half inch or so further apart. Either this or $1\frac{1}{2}$ inch the whole year round. I practice both.

JAMES HEDDON, DOWAGIAC, MICH.—The best average distance to space combs from center to center is $1\frac{3}{8}$ inches. There are times in summer when closer spacing might be slightly advantageous, but it would be equally damaging in winter, and it never has been and probably never will be practical for beekeepers in general to change the spacing between the seasons.

THE EDITOR.—We prefer them not more than $1\frac{1}{4}$ or $1\frac{3}{8}$ in spring, but in fall and winter we prefer them from $1\frac{1}{2}$ to $1\frac{3}{4}$ apart, so there will be plenty of room for the bees to put in honey and also cluster between combs. There is plenty of room for argument, and, no doubt difference of opinion on this subject. We shall have more to say on this matter later on.

FOR THE CANADIAN BEE JOURNAL.

Uncle John as a Moralist.

- A**—Stands for Amateur, the one who's expert, Whose writings are good and never does hurt.
- B**—Stands for Brother, and we should see, That each to each other a brother should be.
- C**—Stands for cussing, which never does good. It puts everybody in a bad mood.
- D**—Stands for Don't, say what you don't know, But be careful and thoughtful, and learn to go slow.
- E**—is for Extractor, and you and I know, That its foolish to say the extractor must go.
- F**—is for Friendship, and should always be true. A pretense of the same will not carry us through.
- G**—Is for Gates, which ain't bars, you can see, For though you shove bars you cannot shove me.
- H**—Is for Heddon, the man that's abused, Whose inventions are cussed, but still they are used.
- I**—Is for Industry, and applies to the bee, I wish I could only apply it to me.
- J**—Is for Journal, and it seems to-day, That none seems to take like the C. B. J.
- K**—Is for Kindness, and ever should be, A motto that's held where all can see.
- L**—Is for Love, let us use it the same. And never be calling each other bad names.
- M**—Is for Mischief, which some times we do, By telling of things we know not to be true.
- N**—Is for Neatness, without it we can't, Keep bees and make honey, no not worth a cent.
- O**—Is for Onward in the bee-keeping race, Let no discouragement slacken our pace.
- P**—Is for Poultry, which always eat bees, It's so, though deny it who ever may please.
- Q**—Is is for Questions in the C. B. J. asked, And some seem so silly they'd better been passed.
- R**—Is for Reasonable room we should give, To bees, or they'll swarm as sure as you live.
- S**—Is for Swarming, which we must control, Or honey'll be absent when calling the roll.
- T**—Is for Touchy, which we should not be, For folks always bother such people you see.
- U**—Is for United, then let us so be, For if we are divided we'll find ourselves in about the same shape the man found himself when he climbed the mullen stalk to get away from the bear.
- V**—Is for Victory, which we will gain, By sticking, and using our hand and our brains.
- W**—Is for Wilful, and by it I've lost, I've learned just the same, though fearful the cost.
- X**—Is for Xanthic, its color you see, Is that of the pollen brought in by the bee.
- Y**—Is for Yearning to understand, The truths of our Saviour, so noble and grand.
- Z**—Is for Zinc, which excludes the queen, It also excludes some honey I wean.
- &**—Is no letter, but used pretty well, In many more ways than I've time here to tell.

Ovid, Erie Co., Pa.

JOHN F. GATES.

OUR OWN APARY.

HOW many are ready for winter? Has every body weighed up his bees and found out their condition as to stores. This fall has been very unfavorable—at least with us—for the gathering of much surplus. Hives that were pretty well filled with stores six weeks or two months ago are now, many them, short entirely. We have one hive in our home apiary that has now 17 lbs. less stores than it had the first of August, while a three frame nucleus in the same yard has lost even more in proportion. Quite a number of those hives which were marked "plenty of stores" on the weighing will have to be fed a little now in order to put them in as good shape as we want them for winter. They would perhaps pull through all right, but then we don't wish to run chances. Lots of beekeepers are too sure about their bees having plenty of stores for winter. They weigh them up or heft them early in the season, and decide that they are all right, and then never think of them again in that regard. Suppose you do put in a few pounds more than they are going to consume, what loss is it going to be to you? It always comes good in the spring when the inmates of the hive require stimulation if they ever do, a colony with lots of stores will do double the amount of brooding that a half starved one will accomplish; again, the stores want to be compact (ie) not scattered all over the various combs, a little here and a little there. A serious mistake is made by many in looking into a colony in the spring and seeing a little bit of stores scattered here and there over the frames, they think that is all that is necessary. The bees seem to act in accordance with the circumstances which surround them in this regard, and they will not carry on brooding with as much energy when the environments are such as we have described. Check brooding in the middle of brooding season or just before the honey flow, and you have reduced the profits by which that colony will yield you by just the extent to which brood ear-ning is restrained.

AN EXPERIMENT WHICH MAY PROVE OF GREAT VALUE TO THE FRATURNITY.

TAKING COMBS AWAY DECREASING THE CONSUMPTION.

We have been experimenting a little. We took all the combs from a colony on morning with the bees quietly clustered on them (using no smoke), and shook them off so quickly that they did not have time to fill themselves up with honey, we shook them off into there own hive and left them there without combs. We thought we would see how long they would live, as we wanted to dispose of them, the queen being objectionable. It is now three weeks since these bees were deprived of their stores, we allowed them the freedom of the entrance, and they flew in and out at their pleasure. They seem nice and healthy and our examination shows them clustered in one corner of the hive. They give one the idea of a swarm just clustered, but where their stores came from is a mystery. Now is it possible that we can prevent the large consumption of stores that goes on every fall between the stoppage or the honey flow, and the putting into winter quarters by taking away all the combs for a month or six weeks, leaving the bees to cluster in the hive, as those are which we have described. In all the other hives in the apiary a steady consumption of stores has been going on all the while, and at the present time the colony that has been for weeks without a frame is just as lively and healthy as the great majority. They must get stores from some place or other, else signs of starvation would surely set in ere now, but there are scarcely any dead bees in the bottom of the hive. It is quite probable when clustered in this manner, with their occupation gone, that they relapse into a sort of dormant state, thus consuming very little more (perhaps not as much) than they do in winter. In this instance they were without a queen. Would it make any difference if they had one? Would they be apt to swarm out and go into other hives, or off to the woods? Is it not worth experimenting further with. Perhaps we may here find the happy medium between G. B. Jones' complete annihilation plan and our present expensive

methods of bee-keeping. Will all who have had any experience tending in this direction arise and tell us what they know.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

BEETON, ONTARIO, OCTOBER 15, 1890

Will those of our readers who have any quantity of comb honey on hand for disposal, please advise us of the quantity, how put up, and the very lowest price in cash which they are prepared to accept for it. At once please.

We will pay 10 cents per pound for No. 1 bright extracted honey, delivered here, in 60 lb. tins (allowing 30 cents each for tins), in exchange for supplies of any kind. 35 cents per pound for beeswax, same conditions. See advertisement in another column.

C. Helwig, Neustadt, carried off the first prize for comb honey at the Normanby township fair and L. Sigwan took the red ticket for extracted honey. We observe that they call it strained honey in the prize list. Our beekeeping friend should educate the Directors to correct their list.

Mr. G. W. Demaree, who has been connected with the "Query" department of THE CANADIAN BEE JOURNAL ever since its inception, has been subjected to some terribly severe attacks of sciatica, so bad indeed, that small hopes were entertained of his recovery for a little time. He is now better.

The distance at which the International is held, together with the time it would take to go and come, will preclude our being present at the meetings to be held on the 29th, 30th and 31st of this month, but we hope to have a report of the proceedings for the CANADIAN BEE JOURNAL, in due course. We trust the meeting will be large, enthusiastic and successful, and we shall be glad to hear that the next meeting will be held in New York State, when we will all go.

In future we shall make a difference of a cent a pound in our price for honey if put up in any

other style than 60 lb. square tins. The trouble of liquifying and re-canning, loss, etc., will not be covered by even that difference in price. Two cents per pound will not compensate us for the time, trouble and loss of honey we have had in handling four barrels of honey just received from a customer. Our entire trade is for honey in 60 lb. square tins, and we have to put it all up in that style before it leaves our hands.

International American Bee Association.

Will be held in the G. A. R. Hall, Estes House, Keokuk, Iowa, October, 29, 30, and 31, 1890.

FIRST DAY—WEDNESDAY, OCTOBER 29TH.

9 A.M.—Call to order. Reception of new members. Payment of dues. Appointment of committees for question box and other purposes.

10.—Address of Welcome, J. B. Craig, Mayor of Keokuk.

11.—"Fifty years' progress in Apiculture," Thos. G. Newman, editor of American Bee Journal, Chicago.

Recess.

1.30 P. M.—"Apicultural Journalism," W. Z. Hutchinson, editor of the Beekeepers Review, Flint, Mich.

Discussion.

3.—President's Address. Hon. R. L. Taylor, Lapeer, Michigan.

3.30.—"Honey pasturage of the U. S.," A. I. Root, Editor of Gleanings in Bee Culture, Medina, Ohio.

Discussion.

Question Box.

7.—"Apiarian Exhibit at the coming Chicago International Fair. Dr. A. B. Mason, Auburn-dale, Ohio.

Discussion.

Question Box.

SECOND DAY—THURSDAY, OCTOBER 30TH.

8.30 A. M.—"What I don't know about bee keeping," C. C. Miller, Marengo, Ill.

11.00.—Condensed reports of the Affiliated Associations in regard to crops and prospects. Question Box.

1.30 P. M.—"Is it best to use full sheets of foundation in brood and surplus combs?" Eugene Secor, Forest City, Iowa.

3.—"Fixed Frames vs. Suspended Frames," Earnest R. Root, Medina, Ohio.

7.—"The conditions necessary to insure a honey crop." Professor A. J. Cook, Agricultural College, Michigan.

Question Box.

THIRD DAY—OCTOBER 31ST.

8.30 A. M.—Business of the Association. Secretary and Treasurer's Reports. Election of officers.

11.—“In an Apiary run for honey only, are Italians or Hybrids preferable?” C. F. Muth, Cincinnati, Ohio.

1.30 P. M.—Volunteer contributions, from different sources.

3.—“The International Bee Association. It's past and future.” W. F. Clarke, Guelph, Ontario Canada.

The question box committee will receive questions at any time and will appoint different members to answer those that are deemed of sufficient interest or importance.

As this is the first meeting of this International Bee Association west of the Mississippi, it is hoped that the Western beekeepers will make an effort to show what the west can do. A number of ladies are expected as usual. The essayists named in the programme will nearly all be present.

A special room on the same floor as the G. A. R. hall has been secured for the exhibit of bees and their products, or implements, and a special committee will report as to their merits. Articles for exhibition, if prepaid to Keokuk and addressed to the Secretary will be delivered in the proper place free of charge.

The Hotel Keokuk, one of the best hotels in the west, a \$3.00 house, will take members at \$2.00 per day. The McCarty Boarding, in Estes House, on same floor as the G. A. R. Hall, will board members at \$1 per day.

Reduced R. R. fares have been promised, but at the printing of this programme, nothing definite has yet been given.

Parties wishing to attend will be freely furnished all necessary information and reduced R. R. rates if same are to be had.

C. P. DADANT, Sec'y.

Hamilton, Ill.

TABLE OF CONTENTS.

| | |
|------------------------------------------------------|-----|
| An Experiment, etc..... | 302 |
| A Young Apiary..... | 295 |
| Bait Sections Finished First..... | 298 |
| Bees on Shares..... | 300 |
| Carniolans, a Good Word for..... | 290 |
| Erroneous Ideas Concerning Foul Brood..... | 296 |
| Honey in Frame..... | 293 |
| International American Bee-keepers' Association..... | 303 |
| Judging at Fairs..... | 294 |
| Learning the Business..... | 298 |
| Millers Method of (Introduction..... | 297 |
| Recent Patents..... | 292 |
| Selling Cut Up Sections..... | 292 |
| Spacing of Brood-Frames..... | 300 |
| Sugar Feeding..... | 290 |
| Uncle John as a Moralist..... | 301 |
| Uniting Bees..... | 292 |
| Uniting Brood Instead of Bees..... | 296 |
| Wintering two Colonies in one Hive..... | 298 |
| Wintering—an English Plan..... | 298 |

GOOD BOOKS

—FOR THE—

Beekeeper and Poultryman.

The following books we can supply direct from Beeton, at the price named opposite each, by mail postpaid.

| | |
|---------------------------------------------------------------------------------------------------------|------|
| A Year Among the Bees, by Dr. C. C. Miller..... | 75 |
| A.B.C. in Bee Culture by A. I. Root, cloth..... | 1 25 |
| A Bird's-Eye View of Bee-Keeping, by Rev. W.F. Clarke..... | 25 |
| Success in Bee Culture, paper cover... | 50 |
| Production of Comb Honey, by W. Z. Hutchinson. Paper..... | 25 |
| Cook's Bee-Keepers' Guide in cloth... | 1 50 |
| Foul Brood, its Management and Cure by D. A. Jones. price by mail..... | 1 1 |
| A. B. C. in Carp Culture, by A. I. Root, in paper..... | 50 |
| Queens, And How to Introduce Them | 10 |
| Bee-Houses And How to Build Them | 15 |
| Wintering, And Preparations Therefor | 15 |
| Bee-Keepers' Dictionary, containing the proper definition of the special terms used in Bee-Keeping..... | 25 |

The undermentioned books are supplied direct from the office of publication, postpaid, at the prices named.

| | |
|-----------------------------------------------|--------|
| Allen's (R.L.&L.F.) New Am. Farm Book | \$2 50 |
| Beal's Grasses of North America..... | 2 50 |
| Burnham's New Poultry Book..... | 1 50 |
| Cooper's Game Fowls..... | 5 00 |
| Felch's Poultry Culture..... | 1 50 |
| Johnson's Practical Poultry Keeper | 50 |
| Poultry: Breeding, Rearing, Feeding, etc..... | 50 |
| Boards... | 50 |

| | |
|----------------------------------------------------------------------|------|
| Profits in Poultry and their Profitable Management..... | 1 00 |
| Quinby's New Bee-Keeping, by L. C. Root, Price in cloth..... | 1 50 |
| Bee-keepers' Handy Book, by Henry Alley, Price in cloth..... | 1 50 |
| Standard of Excellence in Poultry.... | 1 00 |
| Stoddard's An Egg Farm. Revised... | 50 |
| Wright's Practical Pigeon Keeper... .. | 1 50 |
| Wright's Practical Poultry Keeper..... | 2 00 |
| Brackett's Farm Talk, Paper, 50c. Cloth | 75 |
| Brill's Farm Gardening and Seed-Growing | 1 00 |
| Barry's Fruit Garden. New and revised | 2 00 |
| Farm Appliances..... | 1 00 |
| Farm Conveniences..... | 1 50 |
| Farming for Profit..... | 8 75 |
| The Hive and Honey Bee, by Rev. L. L. Langstroth. Price, in cloth... | 2 00 |

THE D. A. JONES CO., - BEETON-

ADVERTISEMENTS.

EXCHANGE AND MART

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

BEEES

BEE MEN Should send five cents for Samples of our lithographed honey Labels. The D A Jones Co. Beeton

WANTED to exchange or sell, 1 six inch comb foundation mill, (Root make) nearly new, used very little. Will take in exchange good light honey. or will sell for cash. THOS. H. MILL, Sarnia.

ON ACCOUNT of moving to Michigan I wish to dispose of my entire apiary consisting of over 80 colonies of choice Italians (Doolittle strain) in Jones hives principally. Price \$4 per colony. W. J. MARTIN, Belgrave, Ont.

GOING TO MANITOBA—79 colonies, chaff hives, frames 13 1/2 x 10 deep, 59 empty hives, 600 frames of comb, empty frames, extractor bands, etc. \$500 cash. here. Also brooder plant for 600 chickens, heater large enough for 2000 chickens \$60 cash here. POSTMASTER, Cumminsville, Ont.

POULTRY Netting.—See our advt. in another col with prices. Also for shipping and exhibition Coops, with owner's name printed on the canvas. Drinking fountains and poultry supplies generally. THE D. A. JONES CO. Ld. Beeton.

HONEY.

We are prepared to accept all the No. 1 Extracted Honey that is offered in exchange for supplies, at regular catalogue prices, on the following terms:

- Put up in 60 lb. square tins per lb. 10c.
- " " other styles of tin..... " 09c.
- " " barrels " 08c.

Freight in all cases to be prepaid to Beeton. We will allow 30 cents each for 60 lb. square tins. No allowance for any other style of packing. Dark honey will be quoted for on submission of samples.

The D. A. Jones Co. Ltd.
BEETON, ONT.

Frontenac Poultry Yards
CATARAQUI, ONT.,

HAYCOCK & KENT,
IMPORTERS AND BREEDERS OF
Golden and White Wyandottes, Rose C Brown Leghorns, B. B. R. Game Fowls, B. B. R. Game and Black ose Bantams and Imperial Pekin Ducks.

Runs in season from our Prize Winners, \$3.00 per sitting.
A choice lot of chicks for sale. Write for what you want.

POULTRY

GREAT CHANCE.—A pen of Black Javas, Cock three Hens, the same I exhibited at Toronto. Five dollars buys them. Cock and six Houdan Hens all first-class, for eight dollars. A few Pullets and Cockerels for sale.

A. HOBBS, Bowmanville.

FOR SALE very cheap, some No. 1 clean faced, well developed, White faced Black Spanish cockerels, also some very fine coloured P., mouth Rock and R. C. B. Leghorn cockerels. These are grand stock and parties wanting cockerels for the 'all show will do well to write me at once. THOS. MALE, Listowel.

FOR SALE—White Minorcas—some grand cockerels and pullets, won at Toronto, 1st, 2nd and 3rd on cockerel, 1st and 2nd on pullets. Have also some choice Partridge Cochon Cockerels and Pullets for sale, also some fine White Plymouth Rocks, Black and Silver Spangled Hamburgs and Rose Comb White Leghorns. Will exchange any of above for White or Golden Wyandottes, and guarantee satisfaction.
JOHN GRAY, Todmorden, Ont.

FOR SALE.—Six Black Red yearling Hens, sired by Imported cock "Sam," 94, three 94 1/2 and 94 1/4 grand color, high stationed, short hackles, good low tails, \$2, \$3, \$5, each. Also one two-year, old hen, 94, 2nd Owen Sound (tied 1st score) extra small whip tail, grand color, only half point out on anything, bred from Imported Cock "Sam" and Imported Heaton Hen 96, \$7 quick. Would exchange for reliable incubator.

R. B. SMITH, Belleville.

FOR SALE, three W. P. Rock Hens, four Pullets, and four Cockerels; also one G. L. Wyandotte Cock, score 91, by Butterfield, four Hens, five pullets; one S L. Wyandotte Cockerel, a large one, one L. Brahma Cock. All good ones; no culls for sale at any price. Prices very reasonable. S. M. CLEMO, in Perfection Fanciers' Club, Dunnville, Ont.

FOR SALE.—Black Red Game Cock, 1st, as stag, Montreal, last winter, 94 1/2, Felch, good color, extra long head, short hackles, very reachy, decidedly the tallest cock I ever saw, grand breeder, \$13. Two Black Red Pullets, imported last winter from Samuel Matthews, England, one is a typical show bird from head to toe, regular beauty, score 95, the other was imported specially for breeding cocks, the strain she is bred from are celebrated for the grand reachy step they throw, \$30 for pair, cost me double the amount, must be sold as have no winter pen.

R. B. SMITH, Belleville.

FOR DISPOSAL.

Pen Black Red Game, stag and 4 hens, the lot for \$10; 4 Black Spanish Hens, the balance of John Nunns celebrated yards, the lot for \$10; 11 Black Minorcas, 1 old pair and 9 well grown chicks, all imported stock, the lot for \$10. All are first-class and fit for the show pen.

E. F. DOTY,

47 WELINGTON PLACE, TORONTO

PISO'S CURE FOR THE BEST COUGH MEDICINE. SOLD BY DRUGGISTS EVERYWHERE. CONSUMPTION

ADVERTISEMENTS.

ORGANIZED 1874.

INCORPORATED 1879.

POULTRY ASSOCIATION
OF ONTARIO

17th ANNUAL ♦ EXHIBITION 17th

AT BOWMANVILLE, CAN.

JAN. 5, 6, 7, 8 & 9, 1891

ENTRIES CLOSE JANUARY 3RD.

J. J. MASON, Pres.

J. M. HORN, Sec'y.

The oldest—holding the Largest Number of Annual Exhibitions of any Association in America. Experienced Officers. Liberal Premiums. Four Judges. The Government Grant enables us to hold one of the most successful exhibitions in America. For Premium Lists, etc., address the Secretary.

DO YOU KNOW THAT

The American Apiculturist

WILL BE MAILED FROM NOV. 1st, 1890, TILL JAN. 1st, 1892,

And our Book on "Queen Raising—Thirty Years Among the Bees," also the "Beekeepers' Directory." for the small sum of \$1.25? It is so, there are 350 pages of solid, practical facts on Bee Culture, at a cost of less than one third of a cent per page. Sample copy of Apiculturist free.

HENRY ALLEY, Wenhem, Ont.



W. C. G. PETER,

IMPORTER AND BREEDER OF

WYANDOTTES

Rose Comb Brown, and White Leghorns,

Sing'le Comb White and Brown Leghorns, Lt. Brahmas, Plymouth Rocks, Pile Games, B. B. R. and S. D. W. Game Bantams.

EGGS \$3 PER SITTING, OR 2 SITTINGS FOR \$5.

Send for Circular.

ST. GEORGE POULTRY YARDS, ANGUS, ONT.

BEESWAX WANTED W. A. CHRYSLER,

MANUFACTURER OF

BEE SUPPLIES.

We will pay 30 cts cash or 35 cts in trade for good pure Beeswax delivered at Stratford (sediment deducted, if any).

The best packed hive made for wintering bees outdoors. 80 lb. tins neatly boxed. Shipping Crates for Comb Honey or anything required by Beekeepers. A few colonies of Hybred Bees for Sale at \$5 co per colony.

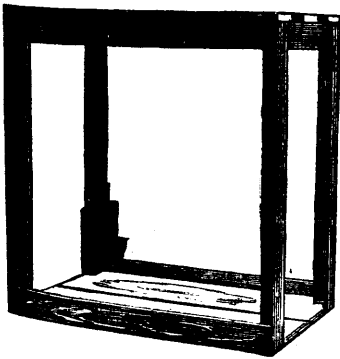
Send for prices. Address,

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

MENTION THIS JOURNAL.

Single and Double Walled Hives, Sections, Shipping Crates, Feeders Etc. Price-lists free. Box 450, CHATHAM, ONT.

ADVERTISEMENTS.



SHIPPING - COOPS

For Exhibition and Sale Purposes.

Save money in express charges by buying light, well made coops—weigh only 5½ lbs.
We keep in stock one size only, 20 in. x 13 in. x 20 in for pairs or light trios.

PRICES MADE UP.

| | | | | |
|------------------|------|--------|-------|---------|
| Skeletons, only, | Each | 10 | 25 | 100 |
| With Canvas, | 30c. | \$2.75 | \$6.2 | \$22.50 |
| | 40c. | 3.75 | 8.15 | 30.00 |

PRICE IN FLAT.

| | | | | |
|----------------------------------------------------|-----------------|------|------|-------|
| Skeletons, only, | 50c. | 2.50 | 5.00 | 18.00 |
| Name and address printed on canvas 5c. each extra, | \$3.00 per 100. | | | |

For Exhibition purposes, where coops are not furnished by the Fair Associations, strips are supplied, which are tacked on one side of coop, at 4c. per coop.

OTHER SIZES.

We make coops in any size desired, and shall, at all times, be prepared to quote prices. In asking for estimates please give size and number wanted.

DRINKING FOUNTAINS.

| | | | | |
|----------------------------------------------------------------------|------|--------|--------|---------|
| For shipping and exhibition coops, to hold one pint of water. Price, | Each | 10 | 25 | 100 |
| | 15c. | \$1.40 | \$5.25 | \$12.00 |

The water cannot slop out or become dirty.
Larger sizes made to order. Ask for Prices.



MAKE YOUR HENS

Earn their living by scratching for it.

—TRY—

Christie's Improved Feeder

It gives the fowl constant exercise and saves you the trouble of feeding them—they feed themselves automatically.

| | | |
|----------------|--------|--------|
| | 1 qt. | 2 qt. |
| Each, by mail, | \$.50 | \$.60 |
| Per doz., | 4.00 | 4.80 |

The D. A JONES CO., Ltd.

BEEON, ONT.

**Niagara River and Grand River
POULTRY YARD.**

Mammoth Lt. Brahmas & Barred P. Rocks.

STILL to the Front, always winning first place in the Showest competition, beating the birds that won at Toronto, London, Barrie, Detroit, Brampton, Markham. So buy our eggs and stock from where the prize winners spring from. Eggs from our prize winners \$2.50 per 13, \$4 per 26. Send for our Club circular.

**AKERLY & CLRAK
DUNNVILLE.**

**GARDINER'S
STANDARD**

**BLACK LEGHORNS
AND**

WHITE WYANDOTTES

Eggs balance of season \$1 per 13. Send for free circular.

**A. W. GARDINER,
Box 1293, Springfield, Mass.**

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 or \$

WM. MOORE,

MENTION THIS JOURNAL. BOX 462 LONDON, ONT

GLEN VILLA POULTRY YARDS.

A. R. MCKINLAY

IMPORTER AND BREEDER OF

HIGH-CLASS POULTRY I

Autocrat strain of Light Brahmas, White Cochins White Plymouth Rocks, Single and Pea-comb Barred Plymouth Rocks, W. F. Black Spanish, Black Minorcas and Buff Pekin Bantams. Eggs, \$3.00 per 13, & 5.00 per 26. BOX 18, DEER PARK, ONT.

**BROWN LEGHORNS
AND BLACK MINORCAS.**

WILL sell a few sittings of Eggs from my grand breeding pens this spring. My Brown Leghorns are second to none in Canada. At the Owen Sound I won every first and second prize given, winning eight first and second prizes making a clean sweep. I have kept the honors at Owen Sound for 5 years in succession on Brown Leghorns. My Minorcas are grand birds. In looking over the prize lists this winter I find I had the highest scoring Minorcas in Canada (93 to 98). Eggs from each variety at \$2 per 15 or \$3 per 30 and will give satisfaction. Brown Leghorns, Benner's strain. Black Minorcas, Abbot Bros' strain from imported stock.

Address
J. C. BENNER, Owen Sound
Care Polson Iron Works MENTION THIS JOURNAL

THE BRIGHTEST!

Five banded 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, to D. C. B. J. Sample of bees five cents. Prices: Untested \$1.00, 6 for \$5.00. Virginia Queen 50 cts., 5 for \$2.00. Tested (at least 3 bands) \$3.00. Selected tested (4 bands) \$5.00. Breeding Queens none to offer, but will furnish them, 4 to 5 bands, for \$7.00. All former quotations are null and void. Arrival and satisfaction guaranteed. Canadian currency and stamps at par.

JACOB T. TIMPE, GRAND LEDGE, MICH.

THE SWARM HIVER

BY mail, and the AMERICAN APICULTURIST ONE YEAR for \$1.50 Sample copies free. Address AMERICAN APICULTURIST, Wenham, Mass. MENTION THIS JOURNAL.



BEES AND HONEY

The Dovesided 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 **Gleanings in Bee Culture** (a \$1 illustrated semi-monthly), and a 44 p. illustrated catalogue of **Bee-Keepers' Supplies**. Our **A. B. C. of Bee Culture** is a cyclopedia of 400 pp., \$2.10, and 300 cuts. Price in cloth, \$1.25. **U. P. Mention this paper.** A. I. ROOT, Medina, O.

Muth's Honey Extractor.

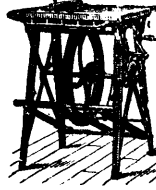
Perfection Cold Blast Smokers, Square Glass Hives, etc. Send ten cents for "Practical Hints to Beekeepers." For circulars apply

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

PATENTS!

Patents, Caveats, and Trade-marks procured. Rejected Applications Revived and prosecuted. All business done for the U. S. Patent Office promptly attended to for moderate fees a 10 cent charge made unless Patent is secured. Send for "**INVENTOR'S GUIDE**," FRANK. H. H. UGH Washington, DC

BARNES' FOOT-POWER MACHINERY



Read what J. J. PAFENT, Charlton N. Y., says:—"We cut with one of your Combined Machines last winter 750 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of bee hives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. &

JOHN BARNES, 544 Ruby St. Rockford, Ill

MARKETING DEPARTMENT.

Honey Tins.

We can ship with reasonable promptness all orders for honey tins, at the following prices:

| No. lbs. | Per 1000 | Per 500 | Per 100 | Less each |
|----------|----------|---------|---------|-----------|
| 10..... | \$100 00 | \$55 00 | \$11 50 | .12 |
| 5..... | 5 00 | 34 00 | 7 00 | .07½ |
| 2½..... | 3 00 | 26 00 | 5 50 | .06 |
| 1..... | 2 00 | 16 00 | 3 25 | .03½ |
| ¾..... | 1 60 | 13 50 | 2 75 | .03 |
| ½..... | 1 25 | 6 50 | 1 40 | .01½ |
| ¼..... | 7 50 | 4 00 | 1 00 | .01 |

Prepared by **Specialty Reading Room** for the **Patent Department**.

Screw tops and screw caps for the above

| No. | Per 100 | Per 50 | Per 100 |
|-----|---------|---------|---------|
| 5 a | \$23 00 | \$12 50 | \$2 75 |
| 1 a | 15 00 | 8 00 | 1 75 |

Most of the leading beekeepers admit that for shipping honey in bulk, the 60 pound tin, encased in wood, is the strongest and best article to be obtained for the purpose. The prices are:

| | |
|-----------------------------------------|------------------|
| 60 pound Tins, encased in wood, each... | \$ 50 |
| " " " " | per 10... 4 80 |
| " " " " | per 25... 11 25 |
| " " " " | per 100... 42 00 |

Lithographed Honey Labels.

Every honey producer knows the advantages derivable from having his name on each package sold, and this series of honey labels are desirable popular, being handsome, bright and attractive. Directions for liquifying are given and a blank in which the vendor's name is to be printed. They are varnished, and a damp

sponge will remove all dirt. Samples of all our labels sent for 5 cts.

| | Per 1000 | Per 500 | Per 100 |
|-------------------------------------------|----------|---------|---------|
| 5 pound labels..... | \$8 00 | \$4 25 | \$ 85 |
| 2½ " "..... | 5 00 | 2 75 | 60 |
| 1 " "..... | 3 50 | 2 00 | 45 |
| ¾ " "..... | 1 75 | 1 15 | 25 |
| ½ " "..... | 1 7 | 1 15 | 25 |
| ¼ " "..... | 95 | 55 | 15 |
| Labels for tops of tins | 90 | 55 | 30 |
| Printing name and address, first 100..... | | | 15 |
| Each subsequent 100 up to 500..... | | | 75 |
| Printing name and address, per 500..... | | | 1 25 |
| " " " " 1000..... | | | 1 25 |

Shipping Crates for Sections.

| | |
|----------------------------------------------------------------------------------------|---------|
| Sample crates, glass included, made up holding 12 or 24 sections 3½x3½ or 4½x4½ each.. | \$ 70 |
| Per 10..... | 1 70 |
| IN FLAT HOLDING 12 SECTIONS. | |
| Without glass, per 10..... | \$1 00 |
| " " " 25..... | 2 25 |
| " " " 100..... | 8 00 |
| IN FLAT HOLDING 24 SECTIONS. | |
| Without glass, per 10..... | \$ 1 50 |
| " " " 25..... | 3 25 |
| " " " 100..... | 12 00 |

We keep in stock crates that hold

| | |
|------------------|---------|
| 12 Sections..... | 3½x4½x8 |
| 12 "..... | 4½x4½x8 |
| 24 "..... | 3½x4½x8 |
| 24 "..... | 4½x4½x8 |

The D. A. ONES Co. Ltd., Beeton, Ont.