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THE CANADIAN BEE JOURNAL

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

VOL. VII, No. 13. BEETON, ONT., SEPT. 15, 1891. WHOLE No. 294

THE CANADIAN BEE JOURNAL

Devoted exclusively to the interests of the Honey Producer.
 Seventy-five Cents per annum in Advance.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

STANDING ADVERTISEMENTS.

Time.	1 in.	2 in.	3 in.	4 in.	1 col.	page
1 month.....	\$2.00	\$3.00	\$4.50	\$6.50	\$8.50	\$10.00
3 months.....	3 00	4 50	5 50	6 50	11 00	17 00
6 months.....	4 00	5 50	7 00	9 00	15 00	25 00
12 months.....	6 00	9 00	12 00	15 00	21 00	40 00
18 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 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 column, be particular to mention the fact, else it will be inserted in our regular advertising columns. This column is especially 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., Ltd., 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.

The Wide Awake Bee-Keeper

Who reads the BEE-KEEPER'S REVIEW one year, or even a few months, is almost certain to become a regular subscriber. As an incentive to new subscribers to thus become acquainted with the REVIEW, I will send it during the first succeeding months for 20 cents in arrears, and I will also send three back numbers, reflecting those of which I happen to have the most, but

of different issues. A list of all the special topics have been discussed, the numbers in which they be found and the price of each will also be sent. member the Review has been enlarged, a beautiful cover added, and the price raised to \$1.00. HUTCHINSON, Flint, Michigan.

Muth's Honey Extractor.

Perfection Cold Blast Smokers, Square Glass Honey Jars, etc. Send ten cents for "Practical Hints to Bee-Keepers." For circulars apply

CHAS. F. MUTH & SON,
or, Freeman & Central Avenues, Cincinnati



BEEES AND HONEY

The Doves-tailed Strongest, Best and Cheapest BEE-HIVE for all purposes. Please everybody. Send your address to the Largest Bee-Hive Factory in the World for sample copy of *Gleanings in Bee Culture* (a) illustrated semi-monthly, and a 44 p. illustrated catalogue of Bee-Keepers' Supplies. Our A B C of Bee Culture is a cyclopaedia of 400 pp., 6x10, and 200 cuts. Price in cloth, \$1.25. Mention this paper. A. I. ROOT, Medina, O.

ALLEY'S IMPROVED AUTOMATIC SWARM HIVER

Thoroughly tested and guaranteed to SELF HIVE every swarm that issues. Sample by mail for \$1.00. American Apiculturist one year and swarmer by mail \$1.50. Sample Apiculturist giving full illustrated description of Swarmer free

H. ALLEY, Wenham, Mass.

Michigan Lands For Sale!

12,000 ACRES
GOOD FARMING LAND

—TITLE PERFECT—

On Michigan Central and Detroit & Alpena and Loon Lake railroads, all plots from 2 1/2 to 25 per acre. These lands are close to our surprising new towns, churches, schools, etc., and will be sold on most favorable terms. Apply to R. M. PIERCE, West Bay City, or to J. W. CURTIS, Whitmore, Michigan

BARNES' FOOT-POWER MACHINERY



Read what J. J. Parent, of Charlton, N. Y., says:—"we cut with one of your Combined Machines, last winter 50 chaff hives, with 7 inc cap, 100 honey racks, 500 broad frames, 2000 honey boxes, and a great deal other work. This winter we have doubt 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, 5 Ruy St. Bookford, Ill.



Wilson's Nurseries

—ESTABLISHED 1876—

CHATHAM, ONT.

Largest variety, Best Quality, Low at prices. A fine worthy old and promising new Fruit, Nut and Ornamental Trees, Bushes, Vines; Roses Plants, Bulbs, Best improved Pumps for spraying trees, lawns, walks, floors, bees etc. and washing buggy's, windows, etc. Galvanized Iron, \$3.50, Brass, \$4.00. Wilson's improved Woven Wire Tree Guards for hind ring Red-bits Mice, etc., 50 cts. per doz \$4 per 100. Grease Dogs and St. Bernard Dogs, 8 weeks old, \$20 to \$25 each. Above dogs are from the best blood of Europe and America and won the best kennel prizes in 1000 Greatest Bench shows in '89 and '90, where there were hundreds of competitors.

TERMS:

CASH—small but sure profits. Send your address now for my large catalogue and Guide to Fruit Growers, which will be issued about March—free to interested purchasers.

F. W. WILSON,
Nurseryman Chatham, Ont.

MENTION THIS JOURNAL.

Piso's Remedy for Catarrh is the Best, Easiest to Use and Cheapest.

CATARRH

Sold by druggists or sent by mail, 50c.
E. T. Hazelino, Warren, Pa., U. S. A.

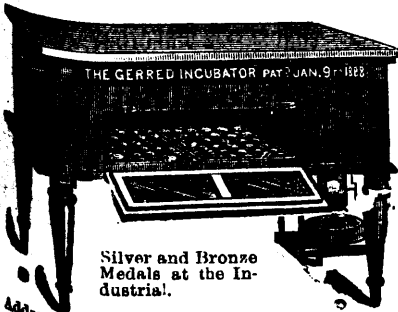
CARNOLIAN QUEENS.

I expect to continue the breeding of Choice Carnolian Queens next season, and orders will be booked from date. No more sent until queens are ready to ship. JOHN ANDREWS, Paton's Mills, Wash. Co. N.

CONSUMPTION SURELY CURED

TO THE EDITOR—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Post Office Address. Respectfully, T. A. SLOCUM, M. C., 126 West Adelaide St., Toronto, Ont.

ADVERTISEMENTS.



All sizes 50, 100 and 200 egg machines. Sent for descriptive circular. MENTION THIS JOURNAL.

Silver and Bronze Medals at the Industrial.

Address E. J. OTTER, Manager, Gerred Incubator Co., 90 De Grassi street, Toronto.

BROWN LEGHORNS

Benner's Prize-Winning Strain.

EGGS for sale from a grand pen of my strain of Brown Leghorns at \$1.50 per 13, \$2 per 26. Satisfaction guaranteed. This pen is headed by a fine cock, winning 1st as a cockerel, by Bicknell, at Owen Sound, 1890, score 94, and 1st as a cock at Owen Sound, 1891, score 95, by J. K. Felch, a fine large bird. One hen has won three first and two special prizes three years in succession, and looks like a pullet; scored by Felch as a pullet, 96; as a hen by Felch, 95; one pullet scored by Bicknell last year 95; also 2nd prize hen at Owen Sound last year, score 94, and other hens and pullets that will score from 93 to 95.

Will sell Exhibition Cockerels and Pullets in the fall Address

J. C. BENNER, Owen Sound.

Care Polson Iron Works. MENTION THIS JOURNAL.

1882-Chester Poultry Yards-1891

E. J. OTTER,

90 DE GRASSI ST., TORONTO.

IMPORTER AND BREEDER OF

**EXHIBITION DARK BRAHMAS,
ORNAMENTAL BANTAMS.**

My birds are second to none. They have won since 1882, 97 in money prizes; 4 specials. Birds for sale at all times. Eggs in season, \$3 per 13, or 26 for \$5. Satisfaction guaranteed.

THOMAS A. DUFF,
267 LANSDOWNE AVE., TORONTO,

BREEDER AND IMPORTER OF

**WHITE AND BLACK MINORCAS,
AND HOMING PIGEONS.**

I have a great number of chicks for sale. If you want to win with you should write now and secure the best. My record at New York, Detroit, Toronto, Hamilton, London, Brantford, Bowmanville and New Hamburg, proves that there is no better stock in America. My Homers (breeders) consist of the best stock that money could buy in Belgium, England and America. I have young birds bred from these in my loft that have flown 200 miles when five months old. Call and inspect my stock.



WILL A. LANE,

TURNERVILLE, ONTARIO

Has for sale some extra fine young **Mammoch Bronze Turkeys.** Get his special Fall Announcement.

MODERATE PRICES. * SUPERIOR STOCK.

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..... 11
- 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 16
- Wintering, And Preparations Therefor 15
- Bee-Keepers' Dictionary, containing the proper definition of the special terms used in Bee-Keeping..... 25

THE DA. 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.

FOR SALE.—Silver, Laced Wyandottes and Silver Spangled Hamburg Chicks. Good stock and at reasonable prices. M. B. HAQUE, Inglewood, Ont. Correspondence invited.

IF YOU WANT CHOICE LACED WYANDOTTES for the winter shows, write me for them. All enquiries cheerfully answered when stamp is enclosed. JOHN GRAY, Todmorden, Ont.

BEST thoroughbred lop-eared rabbits, all ages from 18 months down, cheap for cash, or exchange for honey extractor, good muzzle loading shot gun, or clean combs to fit Jones' hive. C. VANDEVORD, Weston, Ont.

AS my time is now entirely taken up with the Gerrer Incubator Co., I will sell my entire stock of exhibition Dark Brahmas at the buyer's own figure. I have 150 birds to choose from. Write for particulars. E. J. OTTER, 90 de Grassi street, Toronto.

WONDERFUL CHANCE.—For sale, 2½ acres of land with good house, barn and side buildings, good well and rain cistern. A fancy place to keep bees, poultry, and all kinds of berries. Bee fixtures at low prices. Write for particulars. H. M. FREY, Heidelberg, Ont.

FOR SALE.—A choice lot of early chicks of the following varieties, in pairs, trios, or pens: Golden and Silver Wyandottes, Dorkings, S. C. b. Leghorns and Plymouth Rocks. Good birds at moderate prices. JOHN GRAY, Todmorden, Ont.

WE are now able to ship by first Express, in fact we are shipping every day all the Foundation ordered. Knives, Force Pumps; in short, we endeavor to have everything go by first train after the order is received. D. A. JONES COY, Beeton.

MEYER'S S. L. WYANDOTTES are acknowledged the best grand chicks for sale all bred from the following 2 to 4 year-old hens scored last winter by Mr. Smelt: 94; five 92½ each; 92 (first hen, Toronto, '90), 91½ and pullet 92, mated with cock, 94, cockerel 93. If "like begets like," they must please you. J. E. MEYER, Kossuth. Mention this Journal.

FOR SALE CHEAP.—Must go—a breeding pen of Brown Red Exhibition Games. Cock and 4 hens, \$8; Cockerel and 5 Hens, Black Minorcas, \$6; pair Pyle Game Bantams, \$3; and a nice White Leghorn pullet, \$1; or will exchange any of the above for Pekin or Seabright Bantams or Homing Pigeons, or anything useful. Shipped on approval. JOHN GRAY, Todmorden.

GOLD SPECIALS.—S. M. Clemo of the Perfection Fanciers' Club, Dunnville, Ont., offers \$10 in gold for best S. L. Wyandotte cockerel and \$5 in gold for second best S. L. Wyandotte cockerel hatched from eggs bought of him in 1891. Entrance free, and to be sent to editor C. P. J. not later than Sept. 5th. He also offers for sale his entire stock of W. F. Rocks, also a choice lot of S. L. W. and B. Minorca chicks, shipped on approval to reliable parties.

1891.

Don't you want to improve your stock Don't you want large, beautiful yellow Queens, producing bees that will please you fully; the best honey gatherers on earth. Seven years carefully breeding, 650 Queens sold and have heard of only one mismated. Queen, 75c.; 3 for \$2. A yellow to the tip, select breeder, by return mail, \$1.50. W. H. LAWS' Lavaca, Ark.

CONDENSED DIRECTORY.

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

MICHIGAN LANDS, best in the State for \$2 per acre; some at \$2, \$3 and \$4. Write R. M. [unclear] We t Bay City, Michigan.

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

MENTION THIS JOURNAL.

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 94, 94, 96, 96, 96, cockerel 95, J Y Bicknell, Judge Eggs for hatching \$1.2 per 13. WM. COLE, Brampton.

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 & Sons 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.

A FEW Trios, Buff and Partridge Cochins, \$5 to \$10 a trio, also three breeding pens of Br. Leghorn, \$8 a pen. Eggs from Cochins and B. P. Rocks, \$2. Br. Leghorns, \$1.50. BARTLETT & GEORGE, Clarence St., London.

A RARE CHANCE.—If you desire a good home with in stone's throw of railway, express and post office in one of the very best honey locations in the United States. Write me for particulars. Excellent neighborhood. An apiary of 90 colonies, with fixtures, will be sold or leased with the place. Terms easy. Address JAMES HEDDON, Dowagiac, Mich.

GET new blood in your bees by getting our large beautiful yellow Queens, 75 cents each. Honey extractors, knives, smokers, frames sections, &c., &c. We are selling our nice foundations for 45 and 55 cents per lb. W. CHRYSLER, Box 450, Chatham, Ont.

HAZELTON FRUIT AND POULTRY FARM. "Headquarters" for Banded Plymouth Rocks. If you require breeding or exhibition birds of this great variety, and want "the best," order from headquarters. Send for eight page illustrated catalogue containing all particulars. Address C. W. ECKARDT, Ridgeway, Ont.

Special Offer for July!

I WILL SELL EGGS FROM MY BEST Breeding Pen of White Leghorns or Langshans for the month of May at the following prices:—

1 Setting (13) - - \$1.50.

2 Settling (26) - - \$2.00.

This is a grand offer as my birds are good.

J. L. MYERS,

Box 94, Stratford, Ont.

ONE COLONY Saved from Death the Coming Winter Would Repay the cost of

a copy of "ADVANCED BEE CULTURE" ten Times Over. In 5 of its 32 Chapters may be Found the Best That is Known upon Wintering Bees. It costs 50 cents but its Perusal may Make you \$50 Richer next Spring. The "REVIEW" and this Book for \$1.25. If not Acquainted with the "REVIEW," send for Samples. W. Z. HUTCHINSON, Flint, Michigan.

THE CANADIAN BEE JOURNAL

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

VOL. VII, No. 13. BEETON, ONT., SEPT. 15, 1891. WHOLE No. 294

THE CANADIAN BEE JOURNAL.

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES

EDITOR.

EDITORIAL.

We have just been asked the question — "How fast can bees fly." It depends on circumstances. In cold weather bees cannot fly as rapidly as in warm weather. Wind retards their progress, but if the air is calm and the weather warm enough, bees can, we think, fly from 60 to 100 miles an hour. When we were returning from Palestine and Cyprus with a large number of small colonies of bees, we were told that the train ran at a speed of over 60 miles an hour from Brighton to London. As some of the colonies had plenty of bees and to spare, we thought we would test them, and see if they could fly as quickly as the train was running. We let a bee out occasionally to see what the result would be, and they would fly and keep up with the train for miles and miles. Several gentlemen who were very much interested in the experiment, watched with us, and were surprised at the rapidity of the little insects.

When will it become thoroughly known that bees only die off rapidly when doing a large amount of labor, and that in proportion to their labor their life is shortened or lengthened?

If you find a colony being robbed, close the entrance, sprinkle a little flour on the robbers, and after keeping the entrance closed, say five minutes, open it, and as they will rush out filled with honey, and go to their hives directly, it is easy to tell the colony or colonies from which the robbers come. Place a few sticks on an angle over the entrance of the robbers' hive, leaving plenty of air, throw on a few handfuls of hay or straw, and sprinkle cold water over it; this will cool the ardour of the robbers. The same thing should be done at the hive they are robbing. In this way you stop the work at both ends, because by stopping it at the hive they are robbing, they sometimes pitch onto another hive. This plan will be found quick, simple, and effective; but you should have a force pump to do it properly.

* * *

Early in the morning, or late in the evening, as you walk through the yard, if you find a hive that has a lot of cappings, or little fine bits of comb about the entrance, watch it, and as soon as the bees commence to fly, see if robbers are not operating there.

* * *

Honey gathered after the frost comes is very thin, and colonies getting much very late in the season should get an opportunity to ripen it. the hive being thoroughly protected from sudden changes.

Foul Brood.

All those who have foul-brood in their apiaries now, should stamp it out at once, and not allow it to be carried over winter, to commence next season with a foul-broody apiary. It is only necessary to take the matter in hand with a determination to stamp it out and in two weeks your apiary may be clean. This may be done in various ways, but there is one way in which it can be done quite easily, and if your apiary is all diseased, it will not be necessary to exercise the same care as if you have some clean colonies. Where the apiary is all diseased, and there are no bees in the immediate neighborhood to get a taste of honey, a tent need not be used, but you may simply shake the bees out in their own hive, taking the combs and melting them into wax, after the honey has been extracted out of them. A piece of perforated metal queen excluder must be put across the entrance to prevent the queen from flying out in case she wishes to do so, although from past experience, we find there is a probability of not more than one in five that would swarm out. Then if the bees swarm out of the hive, the queen will be kept there, and they will return to her again. After they have been in say four or five days, they may be shaken out of the hive into a clean one, and put on starters of comb foundation. If the colonies are weak, it is perhaps better to move two colonies together gradually, as they will be excited when they have no combs, you can work the hives close together more rapidly than you could otherwise, and in four or five days, the hives may be all set in groups where you wish to double the bees up. In the meantime while this is going on, you have melted up your combs into wax, made them into foundation, put the foundation in the frames and into clean hives, and where you intend doubling them up, the two colonies may be shaken into one the night before you intend to put them into the clean hive. The other hive may be scalded so that you will double your bees up to about half the number after fasting them. This will enable them to draw out the foundation more rapidly, strengthen them for winter, and enable them to store and seal

the food in better shape, and will give you better results in the spring. This is the best way to manage where the apiary is diseased, but when only part of the apiary is diseased, the operations must be carried on after the bees quit flying at night, or during cold days, and also under a tent, so that no honey will be got by the clean bees. Bees consume the honey in their abdomens more quickly if allowed to fly out, than they do otherwise. Where there is no honey coming in from any source, and they seem to be almost starving, a little care should be exercised in watching them, to see that they do not idle for want of food, but our past experience is that bees will get apple juice or something that seems to keep them from starving, even though there is no honey in the flowers, if they are allowed to fly out. Should the bees build any comb, when confined as above to the empty hive, care should be taken that no honey is in that comb, lest the bees should suck and carry it to the new hive. It would be better perhaps, to place a few empty frames in the hive, after the combs are taken out. In this way the bees if they build any comb, will build on the frames, then, as you open the hive carefully and look down, you will easily see if there is any comb built, and if so, the bees should be shaken from these combs quickly so that they would have no time to eat any honey. We have sometimes done it in this way, just crowd the combs apart gently, so that you can get the centre comb, which is most likely to have the honey in, shake the bees from that one, and then the one on either side. If there is any honey coming in, it is perhaps better to do this on the fourth day and give them a couple of frames with a little comb, that they may store any honey that they make, and leave them in that way for one or two days, then treat as above. We shall be pleased to give any further information that they may desire in this matter. Recollect, the object in view, is to get the honey in their abdomens consumed, never allow them to store any, or use it for brood rearing. Any system that will do this will work a cure.


Clubs of five, at one time, to any address for \$3.50; ten at one time, \$6; 20 at one time, \$11; 50 at one time, \$25. This a good opportunity for associations.

GENERAL.

FOR THE CANADIAN BEE JOURNAL.

How to Make Bee-Keeping Pay.

BY ALLAN PRINGLE.

 HAVE received the following query:—"I am a book-keeper, (age 25,) at a moderate salary, and as my health is not very good, and I have a house and an acre of land outside the town limits, I have decided to go into bee-keeping. How shall I make bee-keeping pay?" The way to make bee-keeping pay is to do the business up right. And to do it right you must have an understanding of it. And to the understanding you must add practice and experience. And that is not all. There are other things requisite. You must be adapted to the business—must have an aptness for it, and take pleasure in following it. And as a rule, he or she who has a love for the pursuit, has an aptness for it. You must also have firmness, a steady nerve, and good judgment. You must also have some fertility of resource, so that you need not be running in every little emergency to the book or the teacher for assistance and advice, but be able to work your own way out of little difficulties and perplexities. Some people in any business or circumstances get "all at sea," just as soon as they find themselves in some novel or unexpected position. If some rule or direction they have learned will not apply to it and help them out of the emergency, they cannot get out. Others will promptly devise a plan or course to suit the case.

You also need a good *location*, in order to make bee-keeping pay. Abundant and varied forage is a fruitful factor of pecuniary success in bee-keeping.

With all these conditions present you are bound to succeed, and make bee-culture pay. But wait! I am just a little too fast. One important consideration has been overlooked, and I charge this young man seeking advice not to forget it. He says he is twenty-five. He also says he has a house standing on the acre. Now that house no doubt will hold two people, and possibly more, after a while. And every house in the land ought to be properly filled. And every good citizen who has become of the full age of 25 years ought to do his part in filling them, especially at the present juncture, when we, Canadians, are showing up so discouragingly in the *census* figures. Now this young bachelor may, by this time, no doubt, partly guess what I mean. In order to succeed properly in the bee business, and make it pay handsomely, he

must take a wife into that house with him. Then on the principle that "Providence helps those who help themselves," Providence will surely smile on him. The man who is fortunate enough to have a good woman smile on him will straightway realize in the good wife a good Providence; and with plenty of bees in the yard, and honey in the larder, there can be a perpetual "honey moon," literally as well as sentimentally. So mote it be! There is, however, a prosaic as well as poetic side to this business—I mean the bee business. There is shadow as well as sunshine, and we are, of course, all anxious to increase the latter and minimize the former. How to do this is the question; and to go into particulars and tell the querist in detail how to make bee-keeping pay, would take a volume or two, and hence is impracticable here. I may, however, give him a few general hints. If wholly inexperienced, start with not more than five colonies, that is, if there is other remunerative work in conjunction, if not, say twenty colonies at most. Start with a good movable frame hive, which can be worked for either comb or extracted honey, and produce both kinds, as your local market will require both kinds, and, moreover, you can never be an all round bee-keeper without producing both comb and extracted honey. Use the perforated zinc, or "queen excluder" to confine the queen to her own quarters the brood chamber, and you will thereby save yourself much trouble, and produce a better quality of both comb and extracted honey than you could otherwise do. Keep your colonies strong, and put none but such into winter quarters. Give them plenty of winter stores, or rather leave plenty with them, which is much better than taking it from them, and giving it back again. No matter what anybody may say against *clipping* in the bee journals or out of them, keep your queens clipped, and thereby avoid much work and worry. Keep your yard and hives clean, and free from dead brood, which sometimes leads to, if not causes, foul brood. Do not allow drone comb to accumulate in your brood chambers, so that you may be led into the practice of decapitating the drones, which is a bad practice. To avoid this, use full sheets of foundation in your brood frames, but the less foundation you use in your sections the better. Take good care of your honey from the time you remove it from the hives till you market it, especially the comb honey, which should be kept constantly in a warm, dry place.

Do all this, and be saved, or do it not, and be lost, financially.

Selby, Ont., Sept. 5th, 1891.

FOR THE CANADIAN BEE JOURNAL.

Feeding Back, or Fall Feeding.

BY R. F. HOLTERMANN.

I THINK it must be twelve or thirteen years ago since I made some tests in feeding bees syrup in the api-ary of Mr. D. A. Jones. I weighed the quantity, fed a number of colonies, and again weighed the colonies to find out how much they gained. I found that there was a very large percentage of loss in weight in storing. How to account for it I could not; yet I knew in that instance, at least, it did not pay to feed, and to publish this led me to write my first article on bee-keeping. All the following experiments made have only confirmed me in my belief that in no case where it can be avoided at all, does it pay to extract good honey, and feed back sugar syrup. For years I have avoided fall feeding. How it will be this fall I do not yet know, but for four or five years no fall feeding has been done, and this year, if done, it will not be because I think it pays on account of the reduction in the price of sugar, but because not enough honey is in the combs. This summer, in order to try and secure something extra for exhibition purposes, I fed back honey, and again a loss of 35 to 40% in weight confronted me. It was not unexpected however, but I just state the facts for the benefit of others. I have not tried the method I am about to give, but should I require to give more stores to a number of colonies, I should take say one in four or five, put a fall extracting super on, and then feed as fast as the bees could take it up until they filled one or more upper stories; then distribute the full combs amongst the hives as required. No feeder should be used that would not hold enough to keep the bees engaged until you have time to feed them again. My object in feeding as above is to not disturb any more than the very strongest colonies; and I believe there would be less waste with one colony storing 100 lbs. than ten colonies storing 10 lbs. each. The food should be warm, and the feeder so arranged that the bees can go back and forth freely and not drown in the syrup. If there is any difference between feeding from below the brood chamber or above the top story, I cannot at present say. In closing, I would again say, where stores are of first class honey, do not for a moment attempt to gain from a financial standpoint by extracting honey and feeding granulated sugar syrup; but on the other hand, do not attempt to winter your bees on too little. Probably, at present, more than half the bees lost in wintering, perish from insufficient stores, and many more reach the honey

season in poor condition, because there is not sufficient stores in the hive for brood-rearing to their full capacity.

Brantford, Ont.

Your timely article on "Feeding Back, or Fall Feeding" is appropriate just now, and perhaps more so, on account of sugar being so cheap. Many might imagine that, as honey is not a drug on the market, it might pay them to extract, and feed back; we do not think it will pay. In testing a number of colonies when feeding them, and feeding as rapidly as they would take up the food with our most approved feeder, which we can replenish without disturbing the bees, or opening the hive, and always see how much they are issuing from it, we find that after the bees leave it capped, they have gained just about the weight of the sugar that was melted in making the syrup. Thus, if we have 150 lbs. of syrup we can reasonably calculate on having 100 lbs. of sealed stores. In feeding back honey there is a much greater loss than in feeding sugar or syrup, as the honey agitates the bees. The odor of it is more or less distributed through the yard, causing excitement and very frequently robbing. We would not advise feeding back honey for winter stores, if sugar can be got at any reasonable price—in fact, I think I would pay 10c a pound for granulated sugar before I would attempt to feed back honey, even though we had to sell the honey at 8c. a pound, and we think we would gain by the transaction. Now, feeding back honey to fill sections, or for comb honey is another matter altogether. There is sure to be a loss to the one who does it, as all extracted honey fed back to bees, stored in sections, and capped over, will granulate in a very few weeks, and become nearly as hard as candy. Mr. Emi, one of our best bee-keepers; tried this one year—and many will recollect Mr. Emi exhibiting sections of honey all filled across the top, before he commenced feeding back, and you could see exactly how much the bees had stored. Mr. Emi had a large number of these sections, one portion of them filled with liquid honey, the other portion granulated so solidly that it looked like sugar candy; in fact, the same honey from the same sources—did not taste the same, as the feeding back the second time seemed

to change the flavor of it somewhat, and it had partially lost that pleasant flavor that is always observed in good comb honey. There may be a difference in different kinds of honey being fed back, about granulating so rapidly and so hard. From past experience, we have come to the conclusion that it is against the interests of bee-keepers to attempt to feed back to have sections filled, but we think it is to their interest to take those partially filled sections to exhibitions. They can be weighed, and the exact weight of each section may be marked on it, which will indicate the price to charge for it. In that way they may be set out, placed in boxes on the counter, and some sold for 15c. 12, or 10c. a section, or whatever price it is worth; in fact, they sell for better prices in proportion to the honey they contain than fully filled sections.

FOR THE CANADIAN BEE JOURNAL.

New Races, or Special Strains of Bees.

IN a recent issue of the C. B. J. you suggested that those who claim to have some race or strain of bees should have them sent to some experimental station, and if, when found to possess special merit, that their owner should be compensated, or have control of their breeding, or words to this effect. I could not help thinking what a blessing this would have been to many of us had your suggestions been adopted some years ago. It is so easy to be mistaken, and to suppose we have something special in the non-swarming or other desirable feature. It is not because a colony does not swarm under the most aggravating conditions, that we are to suppose we have a non-swarming strain, as very likely her progeny may show nothing of this enviable trait; nor are we to believe that because some colony gathers so much more than others that we have a gem as honey gatherers. There are so many things that are either for or against a colony that unless we know them thoroughly we cannot say whether it is due to their industry, or to their peculiar condition at the time of the honey flow. It may be their good fortune in finding a supply of nectar, or sometimes honey (as in the case of robbing) that other colonies are ignorant of, or it may be due to a small amount of larvæ in the hive at the commencement of the honey harvest. Do not misunderstand me, and suppose me to mean that those who have the most larvæ will gather the most honey. A colony strong in bees, with five frames of brood, will gather more surplus than the

same number of bees with ten frames of brood, *i. e.*, in those localities where the surplus is gathered in about four weeks. For example, three years ago, when there was such a failure of the honey crop, I had one colony that required no feeding. I supposed this to be a special strain. I found another year, however, that there was no noticeable difference either with this colony or the progeny of her daughters. I attributed it to the fact that the queen ceased or decreased her laying very early, as the colony was rather weak in bees in the fall, and in the place of frames of brood I had frames of honey. I have had considerable experience with bees, whose queens have been confined in from four to sixteen frames, and I estimated that every frame of brood in the honey season means one frame less honey. If your suggestion was followed up the Punic bee (about which there is some stir), should go on trial. After reading a short account of these bees in this journal about two years ago, as given by a "A Hallamshire Bee-Keeper," I was tempted to try them, and I wrote to Frank Benton to this end. He discouraged it, however, so I troubled myself no further, as I supposed he should know, as it was from him the first came. I might have more faith in them now if some other than "A Hallamshire Bee-Keeper," and others interested, sounded their praises, and especially when he comes forward and places them side by side with the Carniolians as being superior to the Italians. I do not think very highly of the opinion of any one who claims the Carniolians to be superior to the Italians. I have tried the Carniolians, and want no more of them. It takes time and money to rid yourself of an undesirable race, and for this reason I would say "go slow." I have a fellow feeling for the bee-keeper, who, Dr. Miller states, as having tried different races of bees, and "breathes a sigh of relief," and settles down to the Italians. I confess I am content with having selected Italians—those whose queens are of golden color, and whose bees are large, gentle, industrious, and withal, beautiful to look upon.

G. A. DEADMAN.

Brussels, Ont.

The above article has many hints which should be acted upon by our bee keeping friends. I think we should go very slowly in mixing untested races with our present good stocks. It is quite true that a large number of frames of brood in a colony, when the honey season is short, simply means a great reduction in the yield.

Honey Exhibit at The Industrial.

Year after year the honey exhibit seems to attract immense crowds of people and it is astonishing the interest that is manifested on the part of so many to see the honey exhibit in preference to many other things, and it seems as if our bee-keepers who are the exhibits are alive to their interest by the improvement every year in the way in which the exhibitors are put up. One of the special features this year being the neatness and attractiveness of the packages, although the quantity is not as large as we used to show from time to time; but the great improvement in the attractive way in which it is displayed, seems to make up for any loss in quantity. The quality of the honey this year is also considerably varied, or it varies considerably from the different localities, and it is astonishing what a difference there is in honey gathered from the same source, and perhaps not more than twenty miles apart. We think the cause due to a sprinkling of honey dew, that has got mixed in with it, as reports from the various apiaries early in the season indicate, that honey dew was quite plentiful before the honey flow ceased, even in the clover and basswood. The samples shown us clearly indicate that this was the case, at least in some instances, as we would find the honey in the glasses quite clear, except in spots or portions of it that was more or less cloudy—the dark spots through it indicating that the honey dew did not mix readily, or had not been thoroughly mixed with the white honey. Then, again, we find the comb honey this season not being as well filled out as usual, there being very many sections not well capped around the sides and bottom, which is, perhaps, owing to the flow being cut off more suddenly than usual, leaving many with a large number of unfinished sections; but from the way in which we see customers carrying them off, as they pass along the railways in front of the Exhibition, we imagine very few will be left, if any, at the close of the Exhibition, which lasts about a week longer.

Going into the honey building from the north the first exhibit to the left is Mr. Smith's occupying one half of the east space. He has staged his exhibit in a manner that would reflect credit on a trained expert with years of practice. The manner in which the exhibit is arranged is somewhat after the style of our friend McKnight and we think the new system of staging honey here is due in a measure to hints gathered from Mr. McKnight's past exhibits and valuable counsel, but Mr. Smith this year has quite out-

done anything heretofore attempted in this line. His counter, or stage as our English friends call it, is about seven feet wide, by about twenty five feet long, and is arranged in shelves one above another, each about five inches in height, until there is a space left in the middle about two feet in width the entire length of this exhibit. This space is nicely arranged having four pyramids of honey in various shaped glasses placed on it, and about two feet square at the base tapering to small divisions at the top, and about six feet high.

The way in which these pyramids are erected are as follows: Four large glass jars of honey form the corners and bottom, then plates of glass are placed on top of them and four of the smaller size are on top of that, then another plate of glass, then four smaller, and so on until the top is reached, each layer or tier having different sized glasses of honey and also smaller plates of glass to reduce the size of the pyramid. This glass holds the bottles and jars of honey solid in their places, takes up but very little room and being transparent enables you to see every style of package and the quality of honey contained therein, and as you walk up either sides of the railing which surrounds his exhibit it shows to the same advantage, enabling visitors as they come in to get a good view of the attractive display, the moment they enter the door, even though the place is packed with people. He has also arranged the honey in these pyramids, (one of basswood and the other of clover) in the liquid pile also one pyramid of basswood and one of clover in the granulated form which shows to good advantage on the outside. The base of glass forming the divisions of these pyramids are small five cent glass packages, then behind them is a ten cent package, behind that is a fifteen cent package, this making it very attractive between each pane of glass in the pyramid, so that at a glance a person can easily take in a full view of this exhibit. On these attractive glass packages are beautiful designs of trees, deer, etc., etc. These glass packages have all screw-top or sealed tops of tin. A better idea may be had when we tell you that he has about twenty-five different styles of glass, the larger ones having handsome chromo labels, which further adds to the beauty and breaks the monotony which might otherwise be caused by the glass alone. He also exhibits on the base of his stage similar samples to those in the pyramid as well as a nice show of comb honey around the base of his stage, which forms a beautiful back ground of smaller packages set on and in front of them. He also exhibits some very fine

bee wax, moulded in various attractive forms. He also exhibits about thirty or forty different uses that honey may be put too in the way of preserving fruit, vinegar, salves, medicines, among other things a very handsome wedding cake which is supposed to keep up the honey moon for ever, as well as a number of other cakes all sweetened with honey. Altogether his exhibit reflects great skill and interest, and we are pleased to see that Muskoka should lead in the honey exhibit at the Great Industrial Exhibition as we have heretofore predicted that it must sooner or later come to the front. The quality of his honey is all that can be desired, and we bespeak for Mr. Smith and his good lady who has had much to do with the entire exhibit, a long and useful future. Mr. Smith as you will observe by our prize list has secured a silver medal for the largest number of first prizes for honey. He also exhibits a frame of bees with a printed card on top with the following quotation from Shakespeare:

"So work the honey bees;
Creatures that by a rule in nature teach,
The art of order to a peopled kingdom."

The next exhibitor is Mr. Geo. Laing, who occupies the west side of the south end of the same counter. Mr. Laing, as many of you will recollect, was a student in our apiary, and afterwards manager of some of our apiaries for about eight years, and, as might be expected from his very extensive experience, he has a very fine display of most excellent honey. He has also staged his in an entirely different way from Mr. Smith—having arranged his extracted honey on shelves dressed with blue paper. His honey is also largely put up in glass packages, all sizes, from five cents to a dollar. He also shows both comb and extracted honey—the latter being in about twenty different kinds of glass packages and tins. His exhibit of beeswax is extraordinarily fine, and the red ticket which sets on some of the samples clearly indicates what the judges thought of it. He has three shelved pyramids of the extracted honey, and one large, attractive pyramid of comb honey. He also exhibits fruit sealed and preserved, with honey catsnp, honey pickles, cakes, salve, medicines, etc. Some thirty-two different varieties Mr. Laing has also, as you will see by the prize list, been very successful in securing a large number of awards which is clearly merited from the especially fine quality of his honey.

On the east side of the counter, on the south-west table, is Mr. J. B. Hall, of Woodstock. On the south-west side of the honey house he occupies one-half of this table, which is 25 ft. long; his display is certainly very attractive, but we could not expect it to be otherwise, as his long

experience in exhibiting enables him to take advantage of his past experience, with his new ideas added. First, at the north end, he has a pyramid of granulated honey, in glass, put up one tier above another, by laying thin, wooden shelves on top of the glass till it is twelve stories high. It is about three feet square at the base, and tapering as it goes to the top, to a five cent package. He has several qualities of granulated honey in this pyramid, as is indicated by the different colors of the different qualities—packages ranging from six pounds to two ounces—nicely arranged, so that all can be seen by the crowd that is passing by and admiring it. Next comes a pyramid of clover honey, about eleven stories high, put up very much after the style of Mr. Smith's previously described. Next, we find an immense pyramid of comb honey, beautifully arranged, and the quality of the honey seems to be very good at this season. The sections shown are made of four pieces—white spruce—and are very attractive; the base of this pyramid is twelve crate sections, while the top is of clamps of three sections, put together in the following manner, which we consider is the cheapest and most attractive way to put up sections for sale at exhibitions at least. The three sections clamped together have glass on either ends, and are held together in place with a piece of strong manilla paper lapped over the top and bottom, reaching on to the top of the glass three-fourths of an inch, which is certainly strong enough for all practical purposes; and if the sections leak it is caught by the paper forming a dish around the clamp, and it gives two faces to the clamps, either end being open, so the honey can be seen through the glass. Next we come to the pyramid of linden or basswood, it being fourteen stories high, separated by glass shelves as the other, which is certainly bidding fair to be the future way to attract the stage honey. It is supported on either side by two smaller pyramids of honey arranged in a similar manner, which breaks the monotony of the larger pyramid, and adds to the skill and taste; and the display next to the south is the largest pyramid of extracted honey in the building. It is five feet across the base, thirteen stories high, with thin, wooden shelves between, similar to the glass, and tapering to five cent package at the top; then on the south he also has another pyramid of glass similar to the other two described, only not quite as high or heavy; he also shows a large number of packages in tins, from ten pounds to twenty-eight pounds—in short, his exhibit is quite equal to any of his previous—in fact, more taste is displayed in his designs, and his staging of it. The general characteristic is

the massive appearance of his staging. He also shows samples of beeswax. The next exhibit north of Mr. Hall is E. L. Gould & Co. They occupy the north half of the west side of the table, and also all of the east half of the table—about fifty feet of space; first, they have a fine display of granulated honey in the shape of a pyramid, about five feet at the base, tapering gracefully to the top to a five cent package, being twelve stories high, with partitions of glass, similar to the previous ones mentioned; next to that comes a pyramid of extracted honey, twelve stories high; the shelving is also well filled with comb and extracted honey, in various packages of glass and tin from 5 cent up to \$2.50, at the north end of his exhibit, he has staged a very large and attractive pyramid, the base being largely composed of tin packages handsomely labelled, the top stories being entirely of glass of all the most attractive and latest design. These two latter pyramids showing as they do on both sides of the table being in the centre of the building adds very much to the attractive appearance of the show. The pots of flowers which are interspersed with the exhibit add to the entire finish of the display. At the extreme north end of his table he has a comb with bees which serves to attract the attention of visitors. On the east side of his table is a large pyramid of comb honey in crates of from twelve to eighteen sections, with the backs of the crates set together and the fronts spread apart about three inches, thus giving the pyramid half circle appearance while the open spaces between the front parts of the crate are filled with five and ten cent glasses of liquid extracted honey, thus breaking the monotony of the comb honey and bringing out the peculiar features and the staging more clearly. This entire display has been arranged by Mr. Holtermann, who has the entire charge of that department, which does him credit. South of this on the same side he also has another pyramid of extracted honey about twelve stories high with glass partitions between the stories for support. There are about twenty or twenty-five different stories of tins and glass packages. He also shows some very fine samples of bees wax.

At the south east corner of the honey building, on the east side of the table, opposite side from Mr. Laings, is Mr. Goodger's display. He also has a very creditable exhibit. His is put up largely in self sealers and glass jars interspersed with a nice display of small fancy glass packages from five to fifteen cents. He also has a quantity put up in tins, handsomely labelled. He has his extracted honey staged as follows: one large pyramid of shelving at the south with

white paper for a back ground, then in the centre is a nice pyramid of comb honey, at the north end are two pyramids of extracted honey. His honey this year is not quite as bright as it usually is, he, like the others, takes advantage in his display to run off his partially filled sections which are selling very rapidly. Miss Goodger, a bright young lady, seems to have the faculty of selling, and we are glad to see our young ladies assist in this business as it adds very much to the profits of the apiary.

BEE-KEEPERS' SUPPLIES.

The firm of E. L. Gould & Co. shows a general line of bee-keepers supplies. The exhibit has been arranged by R. F. Holtermann who has full charge of this line and the manner of exhibiting reflects great credit on his taste. They show new four and two frame reversible honey extractor.

PRIZE LIST.

Best display of 200 lbs of extracted granulated honey in glass: 1st, R. H. Smith, Bracebridge; 2nd, E. L. Gould & Co., Brantford; 3rd, J. B. Hall, Woodstock.

Best display of 500 lbs of liquid extracted honey of which not less than 250 lbs must be in glass, quality to be considered: 1st, George Laing; 2nd, E. L. Gould & Co.; 3rd, J. B. Hall.

Best display of 500 lbs of comb honey in sections, quality to be considered: 1st, J. B. Hall; 2nd, Geo. Laing; 3rd, E. L. Gould & Co.

Best display of 20 lbs of comb honey in sections, quality to be considered, that is to say, clean sections and best filled: 1st, J. B. Hall; 2nd, Geo. Laing; 3rd, R. H. Smith; 4th, Wm. Goodger, Woodstock.

Best display of 100 lbs of extracted liquid Linden honey, in glass, quality to be considered: 1st, Geo. Laing; 2nd, E. L. Gould & Co.

Best display of 100 lbs of extracted liquid, clover honey, in glass, quality to be considered: 1st, R. H. Smith; 2nd, E. L. Gould & Co.; 3rd, Geo. Laing.

Best Beeswax, not less than 10 lbs: 1st, Geo. Laing; 2nd, R. F. Holtermann; 3rd, R. H. Smith.

Best foundation for brood chamber: 1st, E. L. Gould & Co.

Best foundation for sections: 1st, E. L. Gould & Co.

Best apiarian supplies: E. L. Gould & Co.
Style and assortment of glass for retailing extracted honey: 1st, R. H. Smith; 2nd, E. L. Gould & Co.

Section super for top story and system of manipulating, product to be exhibited in super as left by the bees: 1st, E. L. Gould & Co.; 2nd, J. B. Hall; 3rd, Geo. Laing.

Best and most practical new invention for the apiarist, never shown before at this exhibition: 1st, E. L. Gould & Co.; 2nd, Leitch Coldwater; 3rd, J. B. Hall.

Largest and best variety of uses to which honey may be put in goods: 1st, R. H. Smith; 2nd, Geo. Laing.

For the most tasty and neatly arranged exhibit of honey in the apiarian department, all the honey to be the production of the exhibitor. \$25 of this prize is given by the Ontario Bee-keepers' Association: 1st, R. H. Smith; 2nd, J. B. Hall; 3rd, E. L. Gould & Co.

To the exhibitor taking the largest number of First prizes for honey at this exhibition, 1891: 1st, R. H. Smith; 2nd, Geo. Laing and J. B. Hall.

The judges, Messrs. C. W. Post, Murray, Ont.; J. B. Aches, Poplar Hill; and Murray of Owen Sound, appear to have given very general satisfaction, and went about their business in a way to convince the exhibitors they intended to do their duty without fear or favor.

Ripening Honey.

S. CORNEIL.

ON visiting a neighboring bee-keeper a short time ago, I found he was putting his honey into cans for market, just as it came from the extractor, and I learn that many bee-keepers in a small way follow the same plan.

The first clover honey from my yard this season was quite thin, although partly sealed before it was extracted. Nearly all extracted honey requires to be evaporated before it is put up for market. In 1883 we had honey sufficiently dense to be ready for market as soon as taken from the hive, but we have not had such honey since. I know much is said about leaving it in the hive till it is partly sealed over, but even then the unsealed honey in the lower part of the combs will probably be only freshly gathered.

Mr. R. McKnight, Owen Sound, Ont., heats his honey in a large double-walled tank, the space in the double bottom and walls being filled with water. By means of a faucet passing through both walls he runs his honey into glass jars and seals it while hot, the same as is done in preserving fruit. He assures us that honey so treated will remain liquid even when exposed to the severest cold.

All things considered, the best plan for most bee-keepers is to expose the honey to the outer air until it is reduced by evaporation to the proper density. We are obliged to take the atmosphere as we find it, so I shall leave out of the question the humidity of the atmosphere, and

its pressure, both important factors affecting the rapidity of evaporation, but they are beyond our control. The remaining factors which are within our control to a considerable extent, are: 1st—the extent of surface of honey exposed; and 2nd—the frequency with which the air in contact with the surface of the honey is changed.

The rate of evaporation is in direct proportion to the extent of the surface exposed. The time required to evaporate 100 pounds of honey, having a surface of two square feet, to a given density, is only half as long as is required for the same quantity, when the surface is only one square foot, other things being equal.

As to the second factor, when a small quantity of honey is placed in a narrow deep can the evaporation will be almost nil, because the stratum of air in contact with the honey soon becomes saturated with watery vapor, and evaporation almost ceases, whereas if the surface of the honey is as high, or nearly as high, as the edge of the can, the movements of the air over the honey are more free, a fresh body of air is constantly being brought in contact with the honey, and evaporation goes on rapidly. For the same reason the ground dries up more quickly after heavy rains, if they are followed by winds.

Applying these principles to the problem in hand, I made three shallow, tin-lined tanks about three by six feet each, giving an exposed surface of about eighteen square feet for say 1,000 pounds of honey in full. A frame covered with wire cloth keeps out insects, and a cover keeps out rain, but the later is put on only at night, and when rain is threatening. Into these tanks the honey is emptied as fast as it is extracted, and it remains exposed to the air and sunshine, sometimes for weeks before it is packed for market.

But you ask how do you know even then that it is ripe enough to be fit for packing? Most people dip the tip of the little finger in the honey, stir it around a little, give it a lick, and then pronounce the honey ripe or otherwise as the case may be. This is a very uncertain test, because the apparent thickness or thinness of the honey is very much affected by its temperature. Every honey producer should provide himself with a thermometer, and a hydrometer. The latter instrument consists of a stem of glass, about as long and thick as a lead pencil, terminated with a bulb loaded with fine shot, so that when the instrument is placed in pure water at 600 it sinks until the upper end of the stem is just a little above the surface of the water, floating at nought on the scale on the stem. The denser the liquid the higher the

stem rises above its surface. This is Baume's hydrometer. I have purchased them at an instrument dealer's in Toronto, for fifty or sixty cents. To use it, first ascertain that your honey is at a temperature of 60°. Place the instrument floating in the honey, and when it has settled, make a note of the figures on the scale at the surface of the honey.

In the first column below will be found the figures on the scale of the hydrometer, and in the second column the corresponding specific gravity of the honey. To save space I have given the table only from thirty to forty on the scale, this being all that is likely to be necessary for testing honey.

Figures on the Scale.	Corresponding Specific Gravity.
30	1.261
31	1.272
32	1.283
33	1.295
34	1.307
35	1.320
36	1.333
37	1.346
38	1.359
39	1.373
40	1.386

The authorities are not quite agreed as to which figures should be taken as the standard for ripe honey. Duncan is authority for 1.333, which is in my opinion the thinnest honey that should be offered for sale. Mr. Cowan, of the B. B. J., says the specific gravity of sealed clover honey is 1.370, but I don't believe that sealed clover honey is always the same specific gravity. Mr. Cowan says the average is 1.350, and I think this is about right. In such honey the hydrometer would sink to between thirty-seven and thirty-eight on the scale.

There is one observation I have for a long time intended to make, but I have for one reason or another, put it off. I intended to fill one of my tanks with freshly extracted honey, keeping account of the weight, and after a couple of weeks weigh it out again to see how many pounds I had lost by evaporation. I have for a long time been convinced that my neighbors sell their water mixed with honey at ten cents per pound, while I send mine off in vapor to make clouds.—Bee-keepers' Guide.

Lindsay, Ont., July 10, 1891.

Report From Honeydale Apiary.

MR. EDITOR,—My report this year is not very encouraging. Having bought forty seven colonies last fall, they were wintered inside with the man I bought from. Only 29 came out alive, and they were so weak that most of them had to be fed until after apple

blom. I had sixteen of my own, all good and strong, making in all 35, I had no swarms until middle of June, and mostly all in July. I extracted 1200 lbs., and increased to 63 in good condition My honey market is right here at home. I have a sign which tells them I have it for sale, and it has the reputation of being the best in the market.

The reason why honey is so cheap here, there are a few who keep a few bees, they strain their honey through an old bag or horse-blanket after squeezing the combs through their fingers, they then bring it to market and sell for just what ever they can get, knowing that if they hold it any length of time it will spoil. Others then have to sell for the same, eight cents is the market value here Owen Sound. I have not sold any under ten and twelve and a half cents for small quantities.

On reading Rod McLean's letter on page 630 C. B. J. about rheumatism bees, I just want to give my experience. Four years this summer I took a fearful pain in my right elbow, which after a time I knew to be rheumatism. I had read in some paper before that bee stings would cure it. Well I went right out, I did not let down my pants, but rolled up my sleeve and put several bees right on the spot. I repeated the operation two or three times that day, and I am very happy to say, I have never had it since, that is about a year now.

ROBERT CAMPION.

Kilsyth, Sep. 2nd, 91.

We think Mr. McKight of Owen Sound, gets about twelve cents a pound for his honey, and sends it largely up the lakes, but any person who strains his honey through a horse blanket, ought never to be allowed to sell it. We think it would be advisable to try and educate them to put up their honey in a nice shape, and to prevent their efforts as far as possible in being so careless and slovenly in their work.

FOR THE CANADIAN BEE JOURNAL.

Punic Bees.

MR. EDITOR, I see a great deal in the Bee Journals just now about Punic Bees. It is possible that they can be all that is said about them. I wrote to my brother, who lives near Sheffield, Eng., to make enquiries about them, and he writes me some very strange things in reference to the Punic Bees. He assures me that the whole thing is a farce, and that they are nothing but small black bees, have no wonderful traits, and that the best bee-keepers of England, wonder why Americans are so gullible.

WM. JOHNSON.

Crystal Springs.

FOR THE CANADIAN BEE JOURNAL.

Things I Have Noted.

FROM REV. J. CARSWELL.

WHAT "old foggyisin" in bee-keeping is not yet dead.—When we take into consideration the opportunities enjoyed for obtaining information upon the most approved methods of bee-keeping, and the abundant evidence furnished of the remuneration to be obtained in this way above that received according to the old style, one would think that no one could now be found who would advocate and practice the old system. Yet such is not the case. Occasionally in travelling through the country, you come to a farmstead that is ornamented with a few old "gums" or hollow logs in which bees are kept in the most primitive fashion, and if you enter into conversation with the owner, you soon discover that he is a man incapable of being taught. He already knows too much, and so it is a waste of wind to try and convince him of the advantages of modern methods over that which he pursues. The large yields of honey obtained by some bee-keepers, he takes no stock in, they are either stretchers or frauds unworthy of the credence of any sensible man.

2. That a great many people think they can keep bees without any knowledge of them. They admit the necessity of knowing something about every other department of farming, but imagine they can keep a few bees without any knowledge of their habits, or the best methods of management. The inevitable result is that their bees die the first season; whereas if they had been at a little trouble in acquiring the information necessary, they might have met with encouraging success and saved the loss, which their ignorance and inexperience have entailed.

3. That a great many people who keep bees do not receive any Bee Journal. Through a false economy they try to get along without the slight expense which this would incur, and the result is that they lose in the course of the season far more than a good Bee-Journal would cost. In my own experience, I have often obtained from one article information far more valuable and that led to a financial gain, far in excess of the cost of a Bee-paper. During the eleven years I have kept bees, I have been a constant reader of Bee Journals, and attribute any little success I have had very largely to the information obtained from this source. I can therefore strongly recommend every one who has bees, or intends to get them, to subscribe for a Bee Journal, and there is none better nor so adapted to our coun-

try and climate as the C. B. J. It is one of the cheapest and best of the numerous publications and being Canadian should receive the hearty support of all loyal Canadian bee-keepers.

4. That bee-keeping is too precarious to depend upon entirely for a livelihood.—It furnishes a good addenda to some other occupation, but to rely upon it entirely for a maintenance would be to find ourselves some seasons in the position of vagrants, without any visible means of support.

5. That the number of families who do not use honey as a diet is still very large.—They get a little occasionally to cure a cold, or because they have a visitor that they have discovered is fond of honey; but as an article of daily food it is seldom thought of and enjoyed. And so it is only very occasionally offered to one either in private houses or hotels. Now, when we consider its cheapness and healthfulness, that it costs a great deal less than butter and preserved fruits, and will go a great deal farther, it is surprising that it is not in more general use.

6. That bees winter as well upon sugar syrup as they do upon honey. I settled this question satisfactory to myself the first season I kept bees. One of my neighbors was going to "brimstone" some second and third swarms so as to get the honey, or "take them up" as it was called, and I obtained permission to drum out the bees and put them into one of my hives. I put four into one, giving them empty frames and about 30 lbs of syrup, and they came out in spring better than those that had honey stores. Since then I have frequently fed syrup for wintering on, and found it answer as well as the best honey. Now that sugar has become so cheap it will pay those that have the time to devote to it, to extract pretty closely at the end of the honey season and feed syrup, but let them be sure to use the best sugar, to give it in sufficient quantities, and to clean out the combs that are to be used for extracting in the spring so that none be left to mix with the honey.

7. That bees consume more honey in a mild winter than in a cold, steady one. I know that the opposite opinion is very generally held and stated in Bee-Journals and at conventions. But my experience leads me to believe that in cold steady winters bees hibernate or "lie in a quiescent state," as friend Clarke would say, and do not consume much stores; whereas when the weather is changeable and frequently mild enough for them to obtain a flight, they consume much more food. Last winter was comparatively mild, there being frequent thaws, and so thought I give my bees some five pounds

more per colony than I usually do, when I examined them in March I found that three had died from starvation and others would speedily have followed had they not been fed.

8. That bees winter better on a few combs than on many.—Some of those colonies which only had five combs to winter on last year came out much stronger than those that had twice that number, so one of the secrets of successful wintering is to crowd the feed and bees into as small a space as possible.

9. That spring protection pays.—Last spring was a very trying one on bees that had been wintered in the bee house or cellar as it continued so long cold and the fruit bloom was so late in opening out. A great many therefore suffered severely from spring dwindling. I tried the experiment of putting those I took from the cellar into outside cases or clamps and packing them with chaff. The result was that they all survived and became so strong that I could not keep them from swarming.

10. That it pays much better to raise extracted honey than comb. It seems impossible to prevent colonies devoted to comb honey from swarming. When you get them started to work nicely upon the section, they take the swarming fever and nearly all the workers leave the hive and by the time their place is supplied, the season may be nearly over, and you are left with a large number of sections partially filled. What pays best in my estimation is to go in for extracted honey. Give lots of room so as to prevent swarming, and extract about once a week during the honey flow. I use the large Jones hive, and tier them up two or three deep, and this last season I must have received as much as one hundred and fifty pounds from the strongest colonies; whereas some of those for comb honey did not fill one case of sections.

J. CARSWELL,

Bond Head, Sep. 3rd, 91.

The above clearly indicates that the Rev. Mr. Carswell should not fail to give us more of his experience. The many points in the above article are well taken. We would suggest that no one extract as late as this, to feed back sugar syrup in place of honey, but what he says is quite true, that close extracting may be indulged in, in the honey season, with assurance that if the season is short, and the stores scarce it is perfectly safe to fill up with sugar syrup. Mr. Carswell's experience agrees with others in the northern localities, that extracted honey pays best. Sometimes it is well to have a little of both, as

you occasionally find a customer who prefers comb honey, or perhaps we had better when selling them comb honey, induce them to take a little extracted as well, when they will soon become weaned from the comb honey to the extracted.

Mr. Carswell's system of packing outdoors, where parties have not an extraordinary repository, is better than indoor wintering, in fact, with plenty of stores, we are convinced, that outdoor wintering will be as successful in the hands of the majority of beekeepers. Specialists may winter indoors more economically, so far as stores are concerned, but the setting out in the spring requires so much care, that those that are packed indoors, are less liable to spring dwindle probably Mr. Carswell will tell us his opinion of the best way to pack bees for outdoor wintering.

FOR THE CANADIAN BEE JOURNAL.

War Among the Workers.

DEAR EDITOR,—I noticed in Bee Journal of Sep. 1st, your reply to my query, and may say that I have had similar experience to that of which you speak, but this is a totally different case, these fellows perform before robbers are awake, and after all other bees have gone to bed, providing the weather is warm. To a sensitive nature, it is positively painful to watch them, for they seem actually grievously tormented, especially those that do the nibbling and gnawing, as I cannot see anything wrong at all with the victim or bee that has to submit to the unfeeling mercies shall I say—of her fellow companions. One of them will seize an apparently harmless and quiet bee, generally by the wing, and then two or three others will immediately take a hand in, one on either side, one on top, and one in front, and possibly two or more on top of those again, trying to get down at the poor victim, but always in every case they try to get at and do their gnawing and nibbling at the top and back part of the head, the thorax, and the wings close to their union with the body. The poor unfortunate will stand all of this very well for a few moments, like a bee that is being cleaned up, but very soon tires of it and then begins a struggle for her liberty but has to be a pretty smart one if she regains it again for some minutes, possibly five, ten or even fifteen. With regard to the dead, especially the few that seem to have received the fatal sting. I

am not sure whether they are the victims or the victimizers, but am inclined to believe they are the latter, as it does not seem to be their object to sting the former.

I wish somebody of large experience could see them, as I am not much good at diagnosing such cases as this, but have tried to give you an accurate account of their habits or performances. I am also afraid that it can be spread or transferred, and that simply by giving other bees the empty combs out of the infected hive, as I now have another colony almost as severely tormented as the one I spoke of in my last. The former one was a double story one during a part of June and July, but after extracting from them I did not return the empty combs, but set them aside along with others for the purpose of hiving new swarms or should any issue, which of course these did, and I would not be surprised if the recently affected one is not the one that received those combs, as they issued from a colony that is not affected at all. I am debating in my own mind as to the advisability of destroying the bees and melting up the combs, or to try and keep them through the winter to see what effect that will have on them, but have not as yet decided what to do with them. I am afraid that this communication is too long to print, but am very anxious to get some information as to the probable cause of the disturbance, and its possible remedy. I forgot to mention that sometime ago I sprayed them with a weak solution of salicylic acid, which did no good, except to kill a lot of the poor things, such I think being an accident, caused by the sprayer becoming choked and then breaking out in a stream throwing the acid on them too thick at times.

Yours truly,

A. H. BENNETT,

Barrie, Sep. 10th, 91.

May it not be caused by some peculiar kind of honey the bees are eating? We have had bees that killed their fellows late and early, and we would find plenty of dead ones lying in front of the hive. Robbers, when they get to robbing very often show few, if any, dead bees in front of the hive during the day, but during the night the dead ones are carried out, and some that lurk about the hive seem not to be molested until morning, when they are slaughtered and dragged out. We find them late in the evening and early in the morning frequently moving their limbs in the agony of death, not being able to crawl. A gentleman who spoke to us the other

day at the exhibition, said he had a similar case. We think it was Mr. Alpaugh, and if it was we wish he would relate his experience in reference to the matter. He said they had sometimes killed each other until there were only a very few left in the hive, and he termed it a "A war among the bees." He referred to the fact that families would live harmoniously together as a usual practice, but there were occasional instances when they would quarrel, slaughter and drive one another out. He did not see why the bees should not sometimes do likewise. We would like to have some further information in reference to this matter, for it certainly seems aside from the ordinary course of things.

FOR THE CANADIAN BEE JOURNAL.

A Puzzled Bee-Keeper.

I HAVE been puzzled by the actions of a hive of bees which I wish to tell you about. On the 17th of July they cast a swarm, on the 8th of August I looked over them expecting to find the young queen laying, but I could see nothing of her, nor any traces of her work. I therefore gave the colony a frame containing uncapped larvæ and eggs. Twenty-four hours afterwards preparations for queen cells were visible, I therefore felt assured their queen was lost. On the 20th of August I again took a look at them, and to my astonishment found eggs and very young larvæ, I also found a queen, but to me she appeared newly hatched. The circumstance puzzled me. Next day the thought struck me that perhaps they had two queens one of them laying. I therefore made another visit to the hive, and sure enough, found two queens, one of them well developed, and more puzzling still, I found queen cells in all stages of development, two at least even capped. The ripest looking I opened and out came a honey queen and tumbled down among the bees, so that possibly at this time the hive has three honey queens. By those circumstances I am put beyond my depth in *beeology*. Can you kindly offer solution of those circumstances? In the meantime I shall leave the hive to work out its own destiny.

Yours truly,

D. BEATTIE.

Campbellford, Aug. 28th.

In answer to the above, would say, that if the queens in the hive were young queens at the time of the swarm

issuing, they perhaps had been hurt, and the bees wished to supercede them; but as is most likely the case, the old queen is the one that led off the swarm, and she was either beginning to fail, or had partially failed, and the bees learning this fact, gladly accepted the frame of eggs and larvæ, and commenced queen rearing. The queen that you thought looked like a young one, perhaps was. The old one may have laid a few eggs, and the bees raised the queen that you found in the hive, at the time you searched for the queen cells and found other queens hatching. The probabilities are that this young queen was being hatched at the time you put the eggs and comb in the hive, and that before the young queens were hatched from the comb you placed in the hive, the young queen, which you observed, hatched out, and the old queen being useless, they allowed her to remain in the hive, and as is frequently the case, when bees are strong and they have queen cells hatching, they refuse to allow the first queen that hatches, to tear down the cells. If you should examine the hive again, we think you will find the old queen is missing, and one of the young queens, which has survived the others, is the sole occupant of the hive. It is the opinion of some, that when an old queen fails, the bees kill her. Our experience does not prove that. The old queen is used to a very active life, being fed very liberally, and attended by the bees, and as the young queen commences laying, they gradually cease feeding or caring for the old one, and she has to take care of herself. Being very feeble this non-attention causes her to die off soon.

FOR THE CANADIAN BEE JOURNAL.

A New Bee Disease.

ABOUT a week ago as I was walking through my little apiary, I happened to notice an unusual amount of bees dead and dying, lying in front of a hive that contained a strong swarm. Thinking at first they were the old worn out bees, I just went on and didn't think any more about it. The next day I was looking at them again, and there was a pint or more dead in front of the entrance. I knew then something was the matter. I examined them, taking out all the frames, and found they had plenty of nice sealed honey, and plenty of

sealed brood, but no eggs nor larvæ. The queen had stopped laying. Not knowing what to do for them, I just let them alone, and in a few days they quit dying. Then another swarm took it and every one died, queen and all. They still keep dying, have lost two of my strongest swarms and about half of another. One of the swarms contained my finest breeding queen, and how I hated to part with her, but it was no use to grieve after her. So with a sigh of regret, I threw her into the weeds. I find from investigating that several of my box hive neighbors are loosing bees the same way. Some of them say the moth worm is killing them, others say ants, while some of them say the king is dead, and they are fighting among themselves trying to make each other work, but of course all practical bee men know different to that. They act more like as if they were poisoned than anything else. But it cannot be that, for there is no poisoning going on in the country, and I know they are not poisoned. Now, if it is not the so-called Nameless bee-disease, I have no idea what it is.

Symptoms of disease are, that it seems as if the old bees were effected. They will come rushing out somewhat excited and will drop on the ground, after rolling over several times they die, while others will crawl several rods from the hive. They can be seen at all hours of the day and night, crawling all over the place. I can take a frame from the hive and shake it a little, and nearly half the bees will fall to the ground and never make an attempt to rise, nor get back to the hive, but will crawl off and die. Their appearance and size is natural, so far as I can see, with the exception of a few that look somewhat swelled. I can take one and tear it open, and they seem to have an unusual amount of pollen in them and smell very offensive. I have most of the standard works on bees, but have failed to find anything suited to this case. Have also been a reader of the Bee Journals for ten years. Now if the editor, or any of the readers, of the C. B. J. can give me any light on this, and what to do for them, I would be pleased to hear from you through its columns, and oblige.

L. B. SMITH.

Lorneta, Texas, Lampasas City.

Thank you very much friend Smith for giving us the particulars of your bee trouble. We have never had the like here and never known a similar case to yours, therefore, we are at sea in the matter. In our experience we have endeavored to see what bees would do when poisoned, and they acted very

much like you say yours act. I think there must be some poisonous plants in the locality, where they get more or less honey or it may be from honey dew, possibly it may be some strange disease. We frequently find contagious diseases cropping up among the human race and why may not similar diseases occur among bees. We think it would be worth your while to send samples of these dead and sick bees to Prof. Cook, Agricultural College, Michigan, that he may examine them.

Hints to Beginners.

BY J. H. DAVIDSON.

IN order to get a good start and make a success from the beginning, I would advise those who contemplate bee-keeping to follow the directions below:

1. Visit the best apiaries and most successful apiarists.
2. Secure one or more standard works in bee-culture.
3. Subscribe for the CANADIAN BEE JOURNAL and study carefully some months before you purchase your bees.
4. Buy a good (No. 1) smoker and a silk net veil; you are now prepared to buy your bees.
5. Go to some reliable apiarian in the month of May and be sure there is no foul-brood there. Buy one colony of business bees, not bees for color or stripe, but honey gatherers. A hybrid made up of a cross between the Italian and Black is a good bee.
6. If the queen is not clipped, get the bee-keeper you buy from to clip her.
7. Now decide on your plan of procedure and adhere to it closely, doing all the work promptly and at the right moment.
8. Allow only one swarm (or in other words I would not more than double the stock) each year.
9. Use only the plainest, strongest and best implements and hives, and with as little complicated machinery as possible.
10. I would recommend the Jones combination hive for extracted or comb honey, using the double story and perforated metal. For extracting, use full sheets foundation comb always if possible.
12. Clip all young queens after mating or leave them until the next spring, then clip one wing, which will indicate that your queen is one year old, and in the following spring, clip the other wing, this will show her to be two years old, then later on in the season replace her with

a young queen as the young queen will give better results, other things being equal.

If these directions are followed and honey is secreted in the flowers, your bees will furnish food fit for the gods of creation. Remember bees do not and cannot make honey, but only gather what is already made and placed within their reach.

Mt. Forest, Ont., Sept. 10th.

CAPPINGS.

CUT FROM A VARIETY OF COMBS

PROF. T. BENTON.

The Chattanooga Daily Times contains the following interesting little article in reference to our old friend Prof. Benton, which will be of interest to bee-keepers, and which is an evidence of the important place the honey-bee now occupies in the estimation of the government of the great republic:—

Prof. Frank Benton, brother of Mrs. G. W. Martin, of Missionary Ridge, on the 1st July entered the service of the Government under a commission as "a special agent of the Department of Agriculture, division of entomology, to do work on bee culture."

Dr. C. V. Riley, U. S. entomologist, has signified a desire to send Prof. Benton next year to India on a mission to investigate apiculture, a species of bees of that country. No one else is so well fitted as he for the satisfactory discharge of such a mission. He has been credited, and with good reason, with being the best authority on bees in the world. Last spring he returned with his family from a residence in the old world of eleven years, the whole of which time he devoted to the study and exportation of bees. He established apiaries and lived for one or more years in each of the following places: Island of Cyprus in the Mediterranean Sea; Beyrout, Syria, where his apiary was on Mt. Lebanon; Munich, Germany; Laibach and Krainburg, Province of Carniola, Austria, he also traveled very extensively, establishing an apiary on a French estate in Tunis, North Africa, and even penetrating, in the interest of apiculture, the jungles of India, where he contracted "jungle fever." In addition to his special work he has been an ardent linguist and speaks fluently German, French, Italian, modern Greek, and so on. At one time he was studying ten different languages.

Dr. Riley intends to put Prof. Benton in charge of the whole matter of an exhibit in apiculture at the World's Fair. This is a fitting recognition of his ability and he can be depended on to make the most of the display. He is well known to some of our citizens, having lived for some time in Knoxville, Tenn., where he was instructor in apiculture in the University of Tennessee.

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.

Birds and Bees.

QUERY No. 311.—What birds are the most destructive to bees?—W. J. C.

G. M. DOOLITTLE, BOBODINO, N. Y.—King birds in this locality.

R. F. HOLTERMANN.—The King bird. The balance give me no trouble.

J. F. DUNN, RIDGEWAY, ONT.—The ones we call Bee-birds are the most destructive here.

EUGENE SECOR, FOREST CITY, IOWA.—The Fly-Catchers, among which the King bird is the chief sinner.

G. A. DEADMAN, BRUSSELS.—My experience has been in favor of the King birds, as they are commonly called.

PROF. A. J. COOK, LANSING, MICH.—The King bird is the only one here. This is also known as the Bee Martin.

J. E. POND, NORTH ATTLEBORO, MASS.—I confess I don't know practically, as I am never troubled by the birds catching my bees.

ALLEN PRINGLE, SELBY, ONT.—None in this locality that I know of except the King bird, but he prefers royalty and draws the line at "Common trash" like workers.

JAS. HEDDON, DOWAGIAC, MICH.—I don't know. None of them are worth noticing one minute. To fool away time about birds catching bees, is "straining at a gnat, and swallowing a camel."

J. K. DARLING, ALMONTE.—Am not troubled very much in that line. Am quite sure I have caught the King bird catching bees and once or twice I saw some House Martins acting very suspicious but was not sure.

G. W. DEMAREE, CHRISTIANBURG.—No birds feed on our bees. Some years ago the King Birds, commonly called "Bee Martin" had a nest near my apiary. I was certain that they preyed on my bees while brooding, but I doubt if any of the birds do any damage in this way worth mentioning.

D. A. JONES, BEETON, ONT.—King birds in this locality.

QUERY No. 312.—I may be able to secure a good flow of honey from buck-

wheat; would it be best to take it as extracted honey, or honey in the comb?

J. F. DUNN, RIDGEWAY, ONT.—Extracted honey.

G. M. DOOLITTLE, BOBODINO, N. Y.—I should try for comb.

EUGENE SECOR, FOREST CITY, IOWA.—It depends on your market and other considerations.

JAS. HEDDON, DOWAGIAC, MICH.—All depends upon your market and appliances in your apiary.

PROF. A. J. COOK, LANSING, MICH.—It depends upon your market. We usually prefer to extract our Autumn honey.

ALLEN PRINGLE, SELBY.—Buckwheat honey sells better in the comb than in the liquid, because the liquid is so black and the comb is so white.

J. E. POND, NORTH ATTLEBORO, MASS.—It will depend on your market. If you can sell the one better than the other, take it the way it will sell best.

G. A. DEADMAN, BRUSSELS.—I should say as extracted, and use it, if found unsaleable, for feeding the following spring. I have seen buckwheat honey in sections and I think it a shame ever to have it there.

R. F. HOLTERMANN.—Buckwheat honey for table use, I think sells better than extracted. No more comb should be taken than you are sure will sell for table use, the balance take as extracted, you may dispose of it for manufacturing purposes.

G. W. DEMAREE CHRISTIANBURG.—I guess the extractor will give best results as bees do not build combs as readily late in the season as they do in the early part of the season. But I would be governed by the demand for the one or the other of the articles in the market.

J. K. DARLING, ALMONTE.—You must decide that for yourself as it depends on the demand in your market. I can get rather more for mine in the comb, but find it poor stuff to sell in any shape. If you can secure a large quantity perhaps it would be best to extract, put in barrels and sell to some firm that can use it instead of syrup or sugar. Of course you would not get much for it that way.

Take it as extracted honey. Buckwheat honey in the comb would deceive people, and might cause them to dislike comb honey. If it was extracted, they might be able to judge better what they were getting. It could be sold cheaper, and consequently used more extensively for such purposes as curing of meats, manufacture of tobacco, printers rollers, etc.

ADVERTISEMENTS.

BEEES

MENTION this Journal if you are writing about anything advertised in its columns.

WE have about 75,000 more sections on hand of the 2nd quality, which we will sell for \$1.25 retail. Large discounts for will be given agents. D.A. JONES Co. Beeton.

\$20.—I will give \$4 each for five Italian Queens under one year old (one queen from each breeder) which will produce bees as large, beautiful, gentle and industrious as the progeny of my No. 1 Italian Queen from which we purpose breeding during the season of 1892. Orders booked now and filled in rotation for untested queens at \$1 each. Queens for competition can be sent at once. G. A. DEADMAN. Apiarist, etc., Brussels, Ont.

BEEES WAX FOR SALE—Crude and Refined. We have constantly in stock large quantities of Beeswax, and supply the prominent manufacturers of comb foundation throughout the country. We guarantee every pound of Beeswax purchased from us absolutely pure. Write for our prices, stating quantity wanted.

ECKERMANN & WILL,
Bleachers, refiners and importers of Beeswax,
Syracuse, N.Y.

SECTIONS I

NO. 2 SECTIONS FOR SALE.

70,000 Sections about $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ and $4\frac{1}{2} \times 4\frac{1}{2} \times 1.3/8$, at the following

ASTONISHING PRICES :

Per 1000, \$1.25, or in lots of 10,000, \$1.00.

FIRST COME, FIRST SERVED.

D. A. JONES Co'y Ltd., BEETON.

HONEY GLASSES.

"BOUND TO GO."

We are selling one pound Glasses at a great reduction below prices as quoted in our catalogue. Write for special quotations for quantities. Only about 50 gross left. Now is the time to place your order.

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

Special Notice.

ON account of increase in our business we have taken another brother into partnership with us this account the business will be carried on under name of Myers Bros instead of J. & K. Myers. We have a few more price lists left which we will give to any one on application. We pay 33 cents cash or 35 cents trade for Beeswax varied here.

MYERS BROS.,

MENTION THIS JOURNAL. Box 94, Stratford, Ont

White Wyandottes Exclusively

MATINGS:

PEN No. 1—Headed by a Towle Cock that has sired some of the highest scoring birds in America. Mated to eight fine pullets.

PEN No. 2—Headed by the First Prize Cocker at the "International," score 96. Mated to hens that have proved themselves good breeders.

In these pens are females scoring 95½ and 97 points, and more just as good. Eggs, \$1.50 per 13. I can ship from Buffalo, N.Y., to American customers. Stock for sale after Oct. 1st.

J. F. DUNN,
RIDGWAY, ONT.



ROBERT BLOYE,

TODMORDEN, ONT.

WHITE WYANDOTTES

Exclusively.

Having decided to keep only White Wyandottes in future, I offer for sale my entire stock of

WHITE PLYMOUTH ROCKS (EMPIRE STRAIN)

Cheap. A large number of Chicks of both varieties for sale now.

EGGS IN SEASON, \$2 PER 13.

PRICES CURRENT.

BEEESWAX

We pay 35c 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 20 per cent. on Wax coming into Canada

FOUNDATION

brood Foundation, out to any size per pound.....50c over 50 lbs. Write for price.

Section " " in sheets per pound.....55c

Section Foundation out to fit $3\frac{1}{2} \times 4\frac{1}{2}$ and $4\frac{1}{2} \times 4\frac{1}{2}$, per lb. 1.00c

Brood Foundation, starters, being wide enough for .48c

Frames but only three to ten inches deep

THE D. A. JONES CO., BEETON

I CURE FITS! THOUSANDS OF BOTTLES GIVEN AWAY YEARLY.

When I say Cure I do not mean merely to stop them for a time, and then have them return again. I MEAN A RADICAL CURE. I have made the disease of Fits, Epilepsy or Falling Sickness a life-long study. I warrant my remedy to Cure the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a Free Bottle of my Infallible Remedy. Give Express and Post Office. It costs you nothing for a trial, and it will cure you. Address:—**H. G. ROOT,** 220c, Branch Office, 126 WEST ADELAIDE STREET, TORONTO.

ADVERTISEMENTS.

JOHN GRAY,

TODMORDEN - - ONT.

BREEDER AND IMPORTER OF

Golden, Silver and White
WYANDOTTES

—AND—

PARTRIDGE COCHINS

Four breeds of the most beautiful and useful fowls known. The Wyandottes are the best all purpose fowl in existence. Their low rose comb and short blocky bodies make them especially adapted to our cold Canadian winters. No praise can be too loud for the Wyandotte.

PARTRIDGE COCHINS—Of this handsome breed so much is known that it is needless to say anything here of them. My birds are equal to any in America. I pay particular attention to the selection of choice breeders, the result is I have a fine lot of chicks for sale now at reasonable prices. I send out no culls, the butcher gets them. Prices of chicks from \$5 per trio up. Nothing under that price sold to the fancy. A choice lot to select from ready for the fall fairs now.

STAMP FOR REPLY.

Any gentleman desiring to make enquiries or purchase birds, will not mind enclosing stamp. It is simply business and will insure a speed reply.

EGGS IN SEASON.

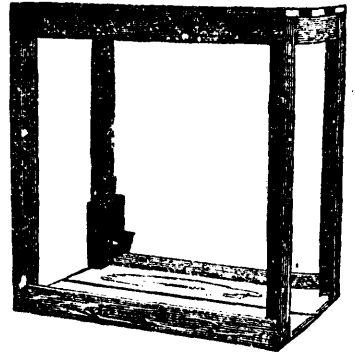
EGGS, \$1.00 for 13.

- Light Brahmas—Six yards. Fletcher, Duke of York, Williams and Bucknam strains
- Dark Brahmas—Three yards. Mansfield and Bucknam strains
- White Cochins—Two yards. Lovell strain
- Partridge Cochins—Three Yards. Williams, Booth and Washington strains.
- Buff Cochins—Three yards. Gold Dust strain
- Black Cochins—Two Yards Williams strain
- Langshans—Three yards Croad strain
- White Plymouth Rocks—Four yards
- White Wyandottes—Two yards
- Silver Wyandottes...Two yards
- Barred Plymouth Rocks...Twelve yards. Drake Upham and Corbin strains
- Houdans—Two yards Pinckney strain
- White-Faced Black Spanish—Two yards McMillan 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 Bouney strain

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

E. H. MOORE, Melrose, Mass.

MENTION THIS JOURNAL



SHIPPING - COOPS

For Exhibition and Sale
Purposes.

Save money in express charges by buying light, well made coops—weight only 5 1/2 lbs.
We keep in stock one size only, 20 in. x 13 in. x 20 in for pairs or light trios.

PRICES MADE UP.

Skelotons, only, With Canvas,	Each	10	25	100
	30c	\$2.75	\$6.25	\$32.50
	40c	3.75	8.50	30.00

PRICE IN FLAT.

Skelotons, 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 water. Price, Each 10 25 100

15c. \$1.40 \$5.25 \$19.00
The water cannot slop out or become dirty. Larger sizes made to order. Ask for Prices.

The D. A. JONES CO. LD.

BEETON ONT.

DOGS AND COMB FOUNDATION.

Brood Foundation, 50 cts. per lb.

Section Foundation, 60cts. per lb.

L. JONES,

DEXTER P. O., ELGIN COUNTY, ONT.

ADVERTISEMENTS.

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

LOOK HERE!
Dunville P. P. Stock

3rd Exhibition

1st and 2nd on S. C. B. Cock, These birds are for sale 2nd on S. C. B. Hen, 96; 1st on Blk Minerca Pullet, 94 1st on S. C. B. Leghorn, B. P.; 1st on Blk Minerca B. P.; 1st on Pekin Duck, 1st on Pekin Drake, dr. ke for sale. A 1 birds for sale now.

C. H. McRae

Park Poultry Yards, Dunville.

BE SURE AND GET
GOOLD & CO'S

—PRICE LIST OF—

HIVES, EXTRACTORS, FOUNDATION, &c., before ordering elsewhere. Address E. L. GOOLD & Co., Brantford, Ont.

LOOK HERE!!
SMOKERS.

We have about 500 Smokers. No. 2 and 3, ready for immediate shipment, by mail or express. Special rates for large orders. See our Catalogue for regular rates. We have also

1000 Honey Knives of various kinds. Extra discount to dealers Write for particulars.

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

TO BEE - KEEPERS

AND FARMERS.

We have on hand a large quantity of 5 gallon (oak) kegs, just the thing for cider or vinegar, at only 20 cents each; also a quantity of second hand hives and honey tins at half price.

Foundation and General Bee Supplies always on hand.

THE D. A. JONES CO., Ltd.

Bee wax Wanted

* P. H. HAMILTON, *

HAMILTON, - ONT.,

Breeder of

White and Black Leghorns,

—AND—

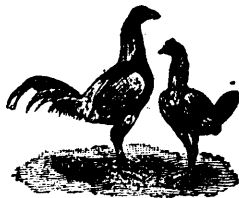
IMPERIAL - PEKIN - DUCKS.

Chicks and Ducklings for sale in September. No more Duck Eggs for sale. Leghorn Eggs for balance of season, \$2.00 per setting of 13; or two settings for \$3.00, one of each it desired.

GAME

Bantam Fanciers

NEW FANCIERS.



Eight Black Red Cockerels—grand ones, guaranteed Bred from a Crystal Palace cup winner. Sure to please you; from \$2 to \$5 each. Some Fine

Brown-Reds at \$4 to \$5 per pair; also a good Pile Bantam Cockerel, (yellow legged), bred from a great English winner, fine station, color, etc. Price only \$3, these are sold on account of having too many birds; also large Game fowls. All are in fine health and condition. First money gets the best. E. F. DOTY, 47 Wellington Place, Toronto

The Bee World

A Journal devoted to collecting the latest Apicultural News. Discoveries and Inventions throughout the world, containing as it were the cream of apiarian literature, valuable alike to amateur and veteran. If you want to keep posted you cannot afford to do without it. SUBSCRIBE NOW. It is a 20-page monthly only 60 cents per year. Stamps taken in one or two-cent denomination.

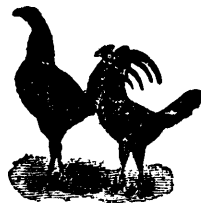
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Sample copies free.

THIS SIZE AD.



3 months..... \$3 00

6 " 5 00

1 year. 8 00

Payable in Advance.

- J. L. MYERS, -

—BREEDER OF—

S. C. White Leghorns,

S. L. Wyandottes,

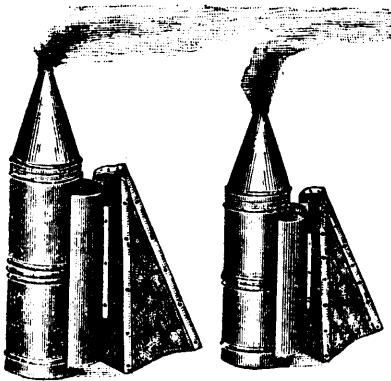
Black Langshans.

STRATFORD, QNT.

P. O. Box 94.

SMOKERS !

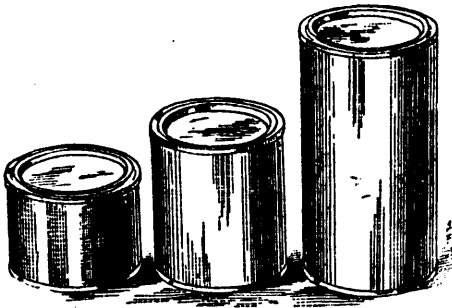
CUT IN PRICE



Since our Catalogue was issued, we have made a contract for a large number of smokers by piece work, at such figures as will enable us to reduce the prices. Hereafter the price of the No. 2 Smoker will be \$1, (formerly \$1.25,) with goods; \$1.25 by mail.

HONEY TINS.

We now offer the "Honey Lever" Tin in three sizes. These are probably the handiest tin to handle and the price is a shave lower than the "Screw top."



2 LB.		3 LB.		1 LB.	
PRICES.					
NO. LBS.	PER 1000	PER 500	PER 100	EACH	
5	\$60.00	\$32.00	\$6.75		
3	47.50	25.00	5.25	6	
2	40.00	21.00	4.25	5	

THE D. A. JONES CO.
BEETON ONT.

A RARE CHANCE

For anyone desiring to make a start in breeding fine poultry, or anyone wanting a good start with one brood, I have to sell my entire stock of

PARTRIDGE COCHINS

on account of my intention to keep only Wyandottes in future. My Cochins are second to none. Cock scored 94, one hen 94½; Cock won as Cockerel last winter and at Brampton, only time shown, and is now a magnificent bird. I have Cock, 2 Hens, 4 Cockerels, 13 Pullets, 4 Cockerels and 5 Pullets early March hatch and are fine in feather; the other 8 Pullets are early April hatch. I prefer selling the lot together; 20 birds in all, for \$30, or part cash and part trade for anything useful. I will ship on approval to any responsible buyer and guarantee satisfaction.

JOHN GRAY, TODMORDEN, ONTARIO.

The above is a good snap for some one.

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.		18 GAUGE.	
24 in.	30 in.	36 in.	48 in.
\$3 10	4 00	4 85	00
			72 in.
			9 50

Less than full roll lots the price will be 1½¢ sq ft

D. A. JONES, CO., BEETON,

Canada's Great INDUSTRIAL • FAIR • TORONTO Sept. 7 to 19 1891

Greater and Better Than Ever

SCIENCE, ART AND INDUSTRY
COMBINED WITH
INSTRUCTION AND AMUSEMENT

NEW IDEAS
Latest Inventions
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CHEAP EXCURSIONS ON ALL RAILWAYS
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