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THE CANADIAN BEE JOURNAL

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

VOL. VI, No. 23.

BEETON, ONT., MAR. 1, 1891

WHOLE No. 283

THE CANADIAN BEE JOURNAL

Devoted exclusively to the interests of the
Honey Producer.

Seventy-five Cents per annum in Advance.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

STANDING ADVERTISEMENTS.

Time.	1 in.	2 in.	3 in.	4 in.	1 col.	page
1 month.....	\$2.00	\$3.00	\$3.50	\$4.50	\$6.50	\$10.00
3 months.....	3.00	4.50	5.50	6.50	11.00	17.00
6 months.....	4.00	5.50	7.00	9.00	15.00	25.00
9 months.....	5.00	7.00	9.00	12.00	20.00	35.00
12 months.....	10.00	15.00	20.00	25.00	40.00	75.00

Breeders' Illustrated Directory.

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

Condensed Directory.

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

Transient Advertisements.

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

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

Exchange and Mart.

Advertisements for this Department will be inserted at the uniform rate of 25 CENTS each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else it will be inserted in our regular advertising columns. This column is 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., Ld., Beeton,
Publishers.

PUBLISHERS' NOTES.

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

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

Subscriptions may be acknowledged on the wrapper label, subject to our 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, \$6 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 stuffed 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 advise. 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..... 2.25

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.

The Wide Awake Bee-Keeper

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

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

Poultry Netting & Fencing.

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

19 GAUGE.				
24 in.	30 in.	36 in.	48 in.	72 in.
\$3 10	4 00	4 85	6 00	9 50
18 GAUGE.				
\$3 25	4 00	00	6 30	9 90

Less than full roll lots the price will be 1 1/2 c sq ft

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

BEE MEN Should send five cents for Samples of our lithographed honey Labels. 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, M.C., Branch Office, 186 WEST ADELAIDE STREET, TORONTO.

FOR TRUE BLUE

CARNIOLANS, GOLDEN ITALIANS

CARNO-ITALIANS SEND TO

WALKER & HORTON

FARGO, ONT.

	Untested	Tested	Select Tested	Bees by lb. fr'm Virgin May 15	May 15
May	\$1 50	\$2 50	\$3 00	\$	\$1 25
June	1 00	2 00	3 00	60	1 00
July	75	2 00	2 50	50	75
August	75	1 50	2 00	50	75
Sept.	1 50	2 00	2 50		

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.

BARNES' FOOT-POWER MACHINERY



Read what J. J. Parent, of Charlton, N. Y., says—"we out 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 double the number of bee hives, etc. to make and we expect to do it all with this saw. It will do all you say it will." Catalogue and price list free. Address W. F. & JOHN BARNES, 64 Ruby st. Rockford, Ill.

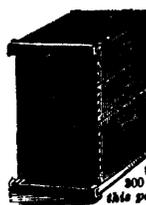
25 cents will pay for a trial trip of 6 MOS. The Canadian Bee Journal

EDITED BY D. A. JONES,

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

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

Please mention this paper.



BEEES AND HONEY

The Doves-tailed Strongest, Best and Cheapest BEE-HIVE for all purposes. Please every body. Send your address to the Largest Bee-Hive Factory in the World Bee-Hive Factory, 400 pp., 6x10, and 200 cuts. Price in cloth, \$1.25. Mention this paper. A. I. ROOT, Medina, O.

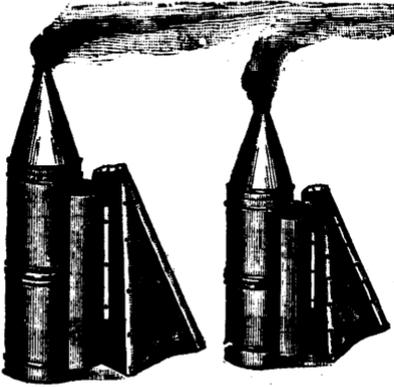
BEEES AND DOGS

25 COLONIES OF BEEES CHEAP!

Will sell 25 colonies of bees of that choice honey-gathering strain that are so near perfection in all their qualities. 1 colony \$5. 2 colonies, \$9, 3 or more \$4 each. Look out for them, they are second to none. I also bred a very fine class of Cocker Spaniel dogs, the finest I have ever seen. Price of puppies \$5 each. L. Jones Dexter F. O., Ont.

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. Here after 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 "Penny Lever" Tin in three sizes These are probably the handiest tin to handle and th price is a shave lower than the "Screw-top."



2 LB. 3 LB. 5 LB.

PRICES.

NO. LBS.	PER 1000	PER 500.	PER 100	HAGH.
5	\$60.00	\$32.00	\$6.75	70.
3	47.50	25.00	5.25	6
2	40.00	21.00	4.25	5

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

CONDENSED DIRECTORY.

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

MICHIGAN LANDS, best in the State for \$5 per acre; some at \$2, \$3 and \$4. Write R. M. Pierce, West Bay City, Michigan

O. J. PUTNAM, Leominster, Mass. has for sale several fine cockerels and pullets, B P Rocks, won 1st 2nd and 3rd on pullets, and 2nd on pen at Agr. 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, 94, 96, 96, 96, cockerel 95, J Y Bioknell, Judge Eggs for hatching \$1.25 per 13. WM. COLE, Brampton

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

TESTED ITALIAN QUEENS bred from selected mothers, principally of Doolittle stock. Prices as follows;—for those under 1 year \$2.50 each, shipped the 20th of April, or 2c. less each day until June 10th. Queens under 2 years old one-fifth less. G. A DEADMAN Druggist & Apiarist Brussels, Ontario.

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

1891 Early Italians for Business. Read this. "The Queen I got from you can't be beat. I want to re-queen all my bees from your stock," J. D. Lower Mound, O. Order now and pay when your queens arrive. Each \$1, 6 \$4.50. W. H. LAWS, Lavaca, Sebastian Co. Ark.

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

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

25 CTS PISO'S CURE FOR 25 CTS

THE BEST COUGH MEDICINE.

500 SOLD BY DRUGGISTS EVERYWHERE.

CONSUMPTION

COMMERCIAL

Relations with the Beekeepers of Canada in the Past have been encouraging. A

UNION

of those who have become our customers and those who will kindly give us a trial order this season will be appreciated. We make Single and Double Waxed Hives, Sections, Feeders, Frames, Shipping Cases, Comb Foundation, etc., at the lowest prices. Send for new price list of 1891 and find out how you can get Sample Chaff Hive for \$1.00. A Pelham foundation mill nearly new for \$10 cash or thirty pounds of Beeswax. Address all orders to to

W. A. CHRYSLER,

Box 450.

Chatham, Ont.



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

VOL. VI, No. 23.

BEETON, ONT., MAR. 1, 1891

WHOLE No. 283

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

GENERAL.

Bee Culture in Ontario.

THE following paper was read at the recent Convention of the *Permanent Central Farmers' Institute* in Toronto. It elicited quite a lengthy discussion, or rather a lengthy volley of questions which the author of the paper endeavored to answer to the satisfaction of the meeting.

A. P.

My business here is to represent the *Ontario Bee Keepers' Association* as their delegate to this farmers' convention. Were I merely an apiarian specialist I might feel a little out of place here, but being a farmer as well, and a working one, I ought to feel at home amongst farmers. I shall not, however, on that account, take advantage of the occasion to bore you with a very long essay.

The *Ontario Bee Keepers' Association* is a legally incorporated body with a membership ranging from three to four hundred, and has a number of local societies in affiliation to each one, of which the parent society makes an annual grant for the encouragement and promotion of the industry. The bee-keepers of Ontario number some tens of thousands, and they produce ann-

ually half a million pounds of honey. This province, in its honey yielding capabilities, as in many other respects, stands second to no country in the world. Nor is apiculture in Ontario, either as a science or art, behind that of any other country. My own opinion is that she takes the lead in taxing the "busy little bee" for all it is worth—the same as she herself is taxed for more than she is worth, or at any rate more than she can pay and live decently. The most formidable enemy bee-culture has to-day to contend with throughout the world is the disease known as *foul brood*, caused, like so many human diseases, as science has disclosed, by a microbe which destroys the young brood. Ontario, I may say, has taken the lead of other countries in wise measures and vigorous action for the extermination of this pest, as we have now in our provincial Statutes an "Act for the Suppression of Foul Brood among Bees," recently passed, which is, without doubt, the best of its kind in the world. Under its provisions we shall be able, speedily, to overcome this greatest enemy to bee culture. In this, as well as in other directions, the *Ontario Bee Keepers' Association* is doing a most useful work in developing bee-culture in this province, thus placing on our tables a wholesome, palatable and cheap food—not merely a luxury, for their is more nutriment in 10 cents worth of honey than in 50 cents worth of fat pork. Our Association is also doing its part in upholding the credit of Canada abroad as a producer. At the Indian and Colonial Exhibition held in London three or four years ago, Ontario bee keepers exhibited many tons of the finest honey in the world, and took the palm in the public eye and popular taste against all competitors. Our fields and

forests yield abundantly of the choicest nectar Nature produces anywhere. I have always thought that bee-culture was a proper and legitimate part of agriculture, and, consistently with that opinion, I have always kept bees on the farm, and am therefore very well acquainted with the little insects through an experience of a quarter of a century. My stock of bees from year to year has ranged from ten to one hundred and fifty colonies, and my crop of honey from one hundred to ten thousand pounds. The bees, I regard as a part of the live stock, and bee-culture a proper part of farm work, and I may say, with me, the most profitable part. I do not mean by this to advise every other farmer to go largely into bee-culture. While the great majority of them might keep a few colonies to advantage to supply their tables with the most wholesome and palatable sweet, only the comparatively few can handle the bee successfully and profitably. Indeed, amongst the small bee keepers of "old box hive" fashion, it seems to be just the other way, the bees handle the man instead of the man the bees. They do about as they like and more than the manipulator likes sometimes. Although the bee is a highly interesting and industrious creature, and fairly peaceable, yet, it always means business, and has a bumptious "business end," always ready to present to interlopers on very short notice. But the honey bee performs an invaluable service in the economy of nature, besides gathering honey for us. For this, if for no other reason, every square league of settled land in Canada ought to embrace within its area at least a few colonies of bees, else the clover seed and fruit crops must fall far behind what they might be. I need scarcely say to you that the bee carries the fertilizing and fructifying pollen from flower to flower in our orchards, gardens and clover fields, thus securing a fruition of fruit in the one and an abundance of seed in the other. This most important function and service of the honey bee is not duly appreciated. Between apiculture, and horticulture especially, there is a close and indispensable connection; and the apiculturist, horticulturist and agriculturist, ought to work hand in hand as being mutually useful to and dependent on each other. Horticulture, our nearest industrial kin, is, I believe, well represented here to-day, and I am pleased to say that the misunderstandings and differences which have sometimes arisen between us as to the alleged injury done to grapes and other ripe fruits by the bees are fast passing away. It has been satisfactorily proved, and is now very generally understood by the fruit growers, that bees do not puncture

or injure fruit, whether mature or immature. The bee will, it is true, sip the oozing sweets from a broken grape, peach or pear, but never punctures or injures, in any way, sound fruit; while the benefit the bee brings to the fruit-grower in fertilizing his blooming trees and vines, he would be better able to estimate were the service withdrawn. Indeed, he has found it necessary when growing exclusively under glass where the bees were shut out to introduce them or fail with his crop. Thus it is that the bee keepers and fruit growers are mutually beneficial to each other, and ought, therefore, to understand and appreciate each other better than they do. There is also, unfortunately, here and there, a prejudice in the mind of the farmer against the bee, which is equally unfounded, and ought to be removed. Instead of realizing the great service it renders him, apart from the honey it gathers, he charges that that field of buckwheat of his will not yield as much grain after the bees have "sucked the flowers," as he calls it. But he is greatly mistaken. He has more grain instead of less. Let him get to the leeward side of his buckwheat patch on any fine morning when it is in bloom and his sense of smell ought to convince him without any scientific argument that the nectar of his blooming buckwheat or clover is rapidly escaping into the air by evaporation. Instead of "wasting its sweetness" thus, why not let the busy bee take it up for our pleasure and profit, and fertilize the flowers at the same time. For twenty years past I have been in the habit of sowing buckwheat every season, at several different times, partly for the bees and partly for a crop, and I almost always have a crop of grain as well as honey from each sowing. The notion is general that in order to get a crop of buckwheat the seeding must be done about the end of June or first of July. I sow my first lot about the end of May, the second some three weeks later, and so on till August, each sowing usually producing a fair crop of grain, and some a super-abundant crop. The last sowing is, of course, sometimes caught in bloom by the fall frost, but in that case it can be immediately plowed under for manure, and nothing is lost. I am well aware that in parts of Ontario buckwheat is in bad repute among the farmers, and almost unknown. Nevertheless, it is, all the same, a good and profitable crop. Three years ago, when that terrible drought in the East scorched up other kinds of grain many farmers in Prince Edward and other counties "saved their bacon," not this time for buckwheat, but *with* buckwheat. In desperation they plowed up their scorched fields of

grain—or rather no grain—and sowed buckwheat. The rains came at last and they reaped thousands and thousands of bushels of the despised and abused buckwheat—all the crop they had in fact. I am a friend of the buckwheat every time. No farmer, who understands his business, need be troubled with that bug-a-boo of "after seeding," as it is called. I might say here, to those who have not tried it, that the Japanese variety of buckwheat is by far the best of any; and next comes the "Silver Hull." The former is a much larger grain, more productive, and better in every respect than the common kinds. When I took some of it to mill for cakes the miller complained that it would not go through his buckwheat sieves on account of its enormous size and wanted to know where on earth I got it. And the cakes it makes, spread over with honey, instead of being soaked with pork gravy, are fit for gods or men, and angels or women (which perhaps mean about the same thing). But this is a digression—a pertinent one, however, for buckwheat, like the fruit tree and clover plant, yields a double crop—one of honey and one of grain.

In conclusion, I may draw attention to one other fact, from an economic standpoint, in favor of bee-culture, as an important branch of agriculture. Every bushel of grain and pound of meat which we raise and sell off the farm represent and carry away with them a certain amount, more or less, of our agrarian capital, or, in other words, the fertility of our soil. Not so with the sweet nectar of the flowers, which would be mostly wasted in the air were it not ingathered by the bees. When you sell twenty bushels of barley for \$10, (and you can hardly get that unremunerative price for it), along with the barley you part with certain of your soil elements, which means more or less impoverishment of your land; but when I sell 100 lbs of honey for \$10, the transaction involves no corresponding impoverishment—that is, I have saved and gathered what would have been otherwise practically lost. I am, therefore, a more profitable producer of wealth in the body politic, and the body industrial than either the agriculturist proper, the horticulturist or the stock raiser. This economic fact, together with that other fact that pure honey is the most palatable and wholesome sweet made in the whole laboratory of nature or art, ought to place apiculture in equal rank with, if not ahead, of every other branch of agriculture.

ALLEN PRINGLE.

Selby, Ont., Feb'y 1891.

FOR THE CANADIAN BEE JOURNAL.

Unprotected Colonies.

A WRITER in the CANADIAN BEE JOURNAL appears to wonder if there are really as many unprotected colonies in winter as one would infer from my article in the *American Bee Keeper*. I am inclined to think our good friend lives in the Northern part of Ontario, or at least in a locality a good deal more rigorous than my own if he doubts my assertion. I only wish I had overdrawn the picture, but a trip lately via the M. C. R. to St. Thomas, thence C. P. R. to Guelph, to attend the annual meeting of the Ontario Agricultural and Experimental Union, a meeting by the way which I would heartily advise everyone interested in any branch of agriculture from bee-keeping and gardening up to the breeding of thorough-bred horses, to attend, returning via Harrisburg to Brantford on the Grand Trunk and thence via M. C. R. to St. Thomas and Comber, I noticed more than one instance of hives standing unprotected on their summer stands. We have had our cold spells this winter, but generally it has been mild up to the present, and should I make a prediction, would say the balance of the winter will be no winter, although we may have a cold spring so that those who have not provided for a severe winter will receive additional encouragement and evidence (so it will appear) that packing for bees is superfluous in winter, and there will be the usual number of converts who will follow the example of their successful friends. But wait till we get a severe winter, perhaps that of '91 and '92, what a lot of empty hives will be stacked up. In some instances, at least, it will be a case of the survival of the fittest. As a rule, I venture to assert, the chaff hive is not sufficient for a Canadian winter. They might do in this, the most southerly part of Ontario, but one year with another they are a risky method of wintering with the packing used, and, although bees have been wintered well in them for several mild winters, it does not follow that they are a safe way to winter, and I should like to urge every bee-keeper to steer clear of them unless he is situated in my locality. I learned at St. Thomas that Jacob Alpaugh's bees, wintering on their summer stands, had only had one fly this winter, and that not a very good one. My bees have had three good flies. St. Thomas is warmer than the average of Ontario. I think it would be hard to find a milder locality in Ontario than this, therefore, I am willing to make an exception for Essex and Kent, although, there are other disadvantages in using the chaff

hive which would not induce me to take it, unless at a price below that for which the manufacturer could produce it. No, I think it a step in the right direction to draw attention to this careless and risky method of wintering, or some spring the bee journals will be coming out with crape covers. The risk run by putting insufficient stores in the hive is also a great one, from which cause, more bees will perish than any other. Bees had but little fall flow this year and they should be looked after very carefully, and as early as possible this spring. Candy should be fed when there is any doubt and no further risk run. It is lamentable to see a good strong colony perish in March or April for want of stores, when a few more would bring them through. I like feeding bee candy; it does not excite the bees, and can be fed quickly without even smoking the bees. By running my hand over the quilts I can tell if they have plenty or not. If I find it all consumed or carried below I feed more. If there is still some above the frames I know there is probably no danger of starving. I say probably, for in some instances if the honey is all consumed and bees cannot fly out for water, they may starve through being unable to liquify the candy, but these instances are rare and in my estimation the advantages are greater than the disadvantages. Of course I do not argue that the better way is to be sure the bees have enough the previous fall. Generally, I think this is better.

R. F. HOLTERMANN.

Romney, Ont.

For THE CANADIAN BEE JOURNAL.

The Best Bees.

WITH bee-keepers, there is about as much difference of opinion as to the best bees, as between stock raisers as to the most profitable breed of cattle. In judging from my own experience, it can of course, be only from those races or strains that I have had. The first colony I purchased was the well known Black bees, and with others that were bought later on, I learned all I wished regarding this race. I found them good workers, capping the cells with snowy whiteness, easily shaken from the combs when extracting, but as easily over-run by millers and robber bees. It is not easy to forget the difficulty with which we found the queen, how fortunate we thought ourselves if she was found at all. In these days of caging, or confining the queens to a few frames, it is essential that

they be easily found; this objection alone shall rule out the Blacks. One could not read bee literature without knowing something about the Italians, much less to remain long without them. Accordingly I ordered a dozen or more from one breeder, and occasionally one or so from others. The change was not such an improvement as I expected. Too frequently they would swarm with empty frames of comb in the hive. I can excuse bees swarming when crowded for room, but I will not tolerate a bee whose chief evil seems to be to swarm. Two or three queens only, proved to be of sufficient worth as to justify my keeping them, the others being replaced by what is known as the Heddon strain. I read of the many good qualities of the Brown German bee, and of the superior strain which Heddon claimed to have produced by a judicious cross of these with the Italians. I therefore ordered a dozen or more from Mr. Heddon. As swarmers and as honey gatherers they were certainly an improvement on any that I had tried. Those of them that retained the markings of the Italians were gentle, and would stay quiet on the combs while being handled. I cannot say this of all, many showed a spirit of restlessness and an inclination to leave the frame. Some of these queens which were purchased direct, were dark, and produced hybrid bees. It is unnecessary to say that these were cross, but by all odds the best honey gatherers. In breeding I continually selected these that showed the Italian markings, but occasionally, even now, bright queens will produce some dark ones, although the bees would be all fine colored. In selling tested queens of this strain, we, of course, sold those that produced bees others than hybrids. The demand has been for Italians, and knowing the uncertainty in breeding of the Heddon strain, I was anxious to try again. So many reported large yields from Italians that I concluded there must be a difference and that I had not had the best, especially when Mr. Doolittle (whose writings all must appreciate) comes forward and says in substance that he has tried most all races and strains and finds none equal to the Italians. I accordingly ordered from him one of his best \$10 queens. The difference was very noticeable. The queens from this mother are uniformly fine colored, and their offspring, with few exceptions, good workers, gentle and stick well to the frames when handled. I have purchased others since, but none equal these. I have a few from Henry Alley's \$1.00 queens, but I have not had them long enough to be able to report. As regards Holylands I cannot say much; I only purchased one queen. This

colony was fed 25 lb. of stores in the fall, which was consumed, together with what they had gathered the following season before swarming. They build too many queen cells to suit me, and as I had understood that they were bad for having fertile workers, I thought it best to discard them. Sensitiveness to pain deterred me from trying either the Cyprians or Syrians. Not so, however, with the gentle Carniolans. I was induced to give this highly praised race a trial. How could one think of not doing so when so much has been said in their favor? How could we be a bee-keeper and not wish an experimental knowledge of "the gentlest bees in the world?" And who would object to the "tons of honey" which this race has been said to gather? Well, to get this experimental knowledge I ordered upwards of a doz. queens, so as to give them a fair trial. Some of these were lost in introducing, but there were enough remaining to convince me of their inferiority, and the outcome is I have no desire to possess another Carniolan, and I think I have removed from an apiary of 180 colonies every trace of them. W. Z. Hutchinson once said in substance (this was early in the season) "if they proved to be as anxious to fill up the hive with honey as they were then to fill up with brood, they would be all right"; but "there's the rub." They are certainly very prolific, but with too much proneness to swarm. The very thing I have been aiming to avoid is what this race seemed most inclined to do, viz: "swarming with empty cells in the hive." This tendency to swarming is admitted, even by their best friends, but they claim it is the necessary outcome of their prolificness. This is a one-sided truth. I want prolificness in a queen as much as anyone, but before this develops into the swarming fever, I want every available space filled with honey even to building up in the covers when possible. The queens are, no doubt, great layers, rendering queen excluders indispensable in the production of comb honey. I have had them even go over the top and behind solid wood division boards. One writer, at least, claims that they are easily found. This is contrary to my experience. On new combs it may be so, but the queens are too dark to show by contrast in combs as black as themselves. Like black's they are too inclined to withdraw from the light and to retreat to the corners of the frames, and too frequently from there to the bottom of the hive, followed by the bees, each endeavoring to get away they knew not where. Time is too precious to occupy much of it in finding queens. To choose this race in preference to selected Italians, is, in my opinion, a

few steps backward. While there may be some truth in the assertions that they gather less propolis, are better defenders of their hives and hardier to winter, yet, the difference in my experience is not worth considering. All things considered, I prefer selected Italians. My intention is to continue to select, and breed from the best, and thereby perfect a race that is or shall be unequalled.

G. A. DEADMAN.

Brussels, Ont.

FOR THE CANADIAN BEE JOURNAL.

Fences for the Apiary—Spring Protection, Etc.

I WAS much interested in answers to Queries Nos. 205 and 286. Mr. C. W. Post brings out a good idea, that the location makes a great difference. I know from experience that that is true. Tight board fences are perhaps the cheapest, but they are unsightly. A lattice fence made of lath and painted costs but little more, and are just as good for a wind-break, I think better. With such a fence your yard is not so hot and close in the summer, and a stiff gale has no force after passing through a lattice fence. It "chops the wind" all up. I have a lattice fence on the south, and a tight board fence on the west and north sides of my apiary. I think I shall knock the boards off and put on a lattice. None of my fences are over six feet high, and I would not care to have them higher.

Mr. Deadman thinks 9/16 thick enough for the walls of a D. W. Hive. I think 3/8 thick enough, and I would sooner have the inner wall $\frac{1}{2}$ than thicker. One inch lumber re-sawed and planed is about right. I prefer that the space between walls be 3 inches, but 2 inches will do very well. If the space were more than 3 inches I should want it 18 inches or 2 feet, and of course that would be out of the question in a D. W. hive. A single walled hive, with outside packing case for winter has many advantages over a D. W. hive, but to take it all round I like a D. W. hive best, (that is when they don't weigh over 30 pounds when filled). As outside shells for single walled hives seem to be attracting some attention just now, I will describe my packing case. It may please many who use the same style of hive that I use (The Richardson). With a slight modification it can be used for any S. W. hive. I make a shell of 3/8 lumber 22 inches wide (outside measure), and 18 inches high. Front and back cut the proper pitch to fit the roof boards of the cap. You know that the hive I use has a loose sun cap, the frame of which is considerably larger than the hive and

the roof boards, each of which are 12x23 inches project about 1½ inches over the frame. There are corner posts 7/8x7/8x14½ inches long placed inside the case and one inch up from bottom, and must not go within 2½ inches from top of case to clear frame of cap; on the bottom of these posts I nail narrow strips to just touch the hive all round at the bottom board. At the front this strip must be 1½ inches higher up the hive, to allow of entrance. Now put on your half storey with cushion in, pour in your packing until it comes up to the top of roof, put on the regular sun cap, and your bees are in a cosy nest, with 2 inches of packing all round and a great deal more on top. The material for such a case as I have described will cost about 20 cents, and a man that don't look at the clock will make 10 or 12 of them in 10 hours. Mr. Heddon says, paint outside cases with English Venetian. If I wanted my cases painted, I should certainly paint them with oxide of iron instead of Venetian. It is a darker red, and lasts a good deal longer than any other color. Use a good deal of oil, part coal oil will do for first coat, last coat pretty heavy with oxide. I have never been satisfied that packing under the bottom board is of any benefit. If I thought so I could easily have it, as many of S. W. hives have a bottom board and stand like the Heddon, and I have yet to see a neater or better arrangement than that. The stand filled with packing would give 6 inches of packing underneath.

J. F. DUNN.

Ridgeway, Feb. 24, 1891.

FOR THE CANADIAN BEE JOURNAL.

Bee Journals.

BROTHER Pringle seems to be about right about that judging business at fairs. The *Review* gives the editors some hard knocks, cos the don't print better pieces. Why don't the *Review* buy up forty-seven of the twenty-five cent bee-journals, and bile um down, and charge subscribers three dollars a year for it? If you don't want to do that, then remember that all a dollar journal can, or should do, is to allow a sensible free and easy chat in their journals, which I think is best anyway. Rev. Clark says, good apiculture costs something; hum, yes, hibernation & Co., etc. Get down to sober facts and who knows better than another we have different ways of doing things; but that's all, if you refer to flighty pieces like that of G. B. Jones, on killing bees in fall and buying in spring, as being

among the grand, glowing, and peculiar articles that command a high price, then I say I had rather read the simple statement of common people, which Mr. Hutcheson makes fun of on page 384 of C. B. J. If big guns want reading that's above and beyond us, let them start a journal of their own. Common people pay just as much for their journals as anybody, and should be heard from. Discourage us common folks, then tell us who takes your journals. Some folks know too much for me. It scares me to think of touching elbows with them. The magnetism of their awful brain seems to paralyze me, and with trembling unutterable, I seem to fall back in dismay and confusion, until I reach the company of common people where I am at home again. The C. B. J. gains friends ship by its common way of doing things. It shakes hands with us. Now, spouse while we are trying to boost it, some of you never-laf-big-brained-high-price latin fellers cum with your pike-poles and raise it wa out of our reach could we lift any more. Confine a bee-journal to facts about bees and how long would it take to tell the whole story, but mix in figures and fun like Brother G. B. Jones does, and the rotation will furnish bee-journals for all time. Read and write, laugh and fight, attend bee-conventions every night, but don't strain your brain trying to make some wonderful discovery in the bee business. We already have, or can get all the honey a colony of bees can gather. How are you going to make them do any more? We can keep more colonies and ought to; but to strain, twist, cramp and squeeze to get more honey from a given colony and after all the miserable penurious grasping, the soul shrinking, and bee grinding operations are over, grab a little more, grab the bees stores, let the bees hang all the fall starving, to save a little honey (grand, glowing and peculiar discovery, to starve bees ain't it? Science, of course), but all this won't enlighten, won't enrich ye, its diving to fetch up mud, instead of pearls. Why in Sam Hill don't you foller the bees around and see that they don't eat nothing? Why in Texas don't you shovel all the wind off your houses and put it in bags and feed it scrimpingly to your bees. Don't keep but a few hives, and um, smash um, drown um (ain't ye shamed, George). Gosh, I wish I was a swarm of bees just two minutes and you'd try to come some of your angelic capers on me.

JOHN F. GATES.

Ovid, Erie Co., Pa., Dec. 13, 1890.

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

For THE CANADIAN BEE JOURNAL.

Heddon's New Hive.

THE EXPERIENCE OF ONE WHO USES IT LARGELY.

MY EXPERIENCE, in the adoption of the New Heddon Hive, two years ago, into any apiary of from eighty to one hundred and thirty colonies, has been one of anxiety throughout. My first impressions of it were such as strongly commended it to my judgment, but the many adverse statements concerning it, which I had read and heard, apparently, sometimes upon good authority, kept me in a state of constant uneasiness, in fear that, after adopting it to the extent I had, it might prove a failure in some essential after all.

As one who produces honey for financial gain I find, that the valuable features of a good hive are those which render it capable of being, (1) properly manipulated with the least amount of labor, either in physical strength expended in a given time, or time itself. (2) arranged the most suitably for the different requirements of the colony throughout the year; and any hive worthy of a place in a well regulated apiary, merits it just in proportion as it will fill in detail of management the requirements of these two headings; and my adoption of Mr. Heddon's New Hive practically settles, as far as myself is concerned, which hive it is, that comes nearest to the above ideal.

As I use it, this hive has a loose bottom board. The brood chamber is divided horizontally into two equal sections which are $19\frac{1}{2} \times 13 \times 5\frac{1}{2}$ inches outside measure. Each section contains a series of eight reversible, closed-end frames, held in position by two thumb screws and a strip of tin tacked firmly to the lower edge of each end piece. The frames of these sections are $5\frac{3}{8}$ inches deep, and fit it endways loosely, by $1\frac{1}{16}$ of an inch. As will be seen by these dimensions, the frames are $\frac{3}{8}$ of an inch less in depth than their outer case, and when dropped onto the tin rests, leave $\frac{3}{8}$ of an inch bee space above them. Along with this I use an ordinary break-joint, queen excluder, zinc honey board, above this, for taking extracted honey, one or more sections of the brood chamber; for comb honey, of which I produce but little, Mr. Heddon's wide frame super with separators.

The first work which presents itself in the spring is removing the bees from the cellar. At this time of the year they are in one section of the brood chamber, with a bottom board, cover and entrance blocks. These, I find, weigh $12\frac{3}{4}$ pounds. This represents tare. Whatever is

more than this, is bees, comb, pollen, and honey. Now, considering the weight of these parts, and their dimensions, also the fixedness of the frames, which will allow us to carry it in any position, with no danger of jarring out of place the frames within, one can easily see, as well as realize in practice, that this operation is performed with the minimum expenditure of labor. Shortly after this we have to expand the brood chamber to give the queen more room to deposit her eggs. This is done by placing a section of the brood chamber filled with comb, between the present one and the bottom board. This places the brood in the warmest part of the hive, the top, and I find that this can be done to quite weak colonies with but little danger of chilling the brood. Should the strength of the colony permit it, which it ought, if the lower section is put on, the queen, if a good one, will at once commence to fill the comb with eggs. This is quite natural, the empty combs being in the lower part of the hive, where she is most inclined to extend the brood nest. After this should it be desirable to stimulate brood rearing to a greater extent than what the present arrangement of the hive does, simply interchanging the two brood sections accomplishes it. Care, however, I find, must be exercised in this operation, that it be not performed at an unseasonable time, or serious injury may be done the colony; but if the conditions are such as to make it advisable, I know of no easier, or more satisfactory way of accomplishing this object. This ends what is termed spring management, viz.: removing from the cellar, expanding the brood chamber and stimulating brood rearing, all of which is accomplished in a way the most suitable for the requirements of the colony, and with the smallest expenditure of labor. The whole of the above described I have found pre-eminently satisfactory in my own yard, and fully up to my expectations.

Closely following this comes what can be properly called summer management. This includes a great variety of manipulation, just according to surrounding circumstances, and what is sought. To accomplish this satisfactorily throughout I find a break-joint queen-excluder zinc honey board a necessity, for the purpose of (1) preventing the building of brace combs above it, (2) contracting the brood chamber (3) finding the queen under certain circumstances, (4) excluding the queen from the surplus apartment of the hive. These features prevent any brood being reared in the extracting combs above, enable one to adjust and re-

move the supers with ease and rapidity, and avoid any danger of killing the queen because she is not there.

Before adopting this hive, from what I had read and heard, I expected to be able, after quieting the bees with smoke, to dislodge them from the extracting cases in front of the hive by shaking. Of this idea my mind was soon disabused. These cases, when filled with honey weigh about thirty pounds, and to continue to rid them of bees by shaking, required a little more of the physical than my poor tenement of clay could well spare. Under these circumstances I at once began to cast about for something different, and soon struck upon the following. Loosen the case to be taken off, which is always the top one if properly managed, from the one below it; now, with smoker in hand, and going well, remove the cover in the usual manner, and pour a volume of smoke over the tops of the frames; and just as the greatest number, practically, of bees have gone below, upend the case with its top to the wind, if any, and its bottom over the tops of the frames in the case below, and with brush in hand quickly remove the bees which still adhere to the bottom bars of the frames. For practical purposes this will generally rid the case sufficiently of bees: should it not, some smoke applied to the tops of the frames which are turned to the wind will soon drive every bee to the leeward side of the case, when they may be brushed off as before, and the case removed to the screen house for the few remaining ones to leave. For the same reason as the above another small difficulty sometimes presents itself, that of finding unprolific queens. If at this time of the year the brood chamber of a hive is not kept full of brood by the queen, as in the case of an unprolific one, the bees will fill it with honey. This renders it heavy, followed by the consequent difficulty of shaking out the queen in front of the hive to find her, should you be in a position to replace her. This operation, however, but seldom becomes necessary. I find that a queen which occupies but one section of the brood chamber as an unprolific one does, can generally be found by pouring a volume of smoke over the tops of the brood case frames then remove it quickly from the bottom board, when the queen will be found thereon. Should this not reveal her, a repetition at some other time likely will; but with an ordinary queen and brood chamber normally filled with brood, I know of no better, nor easier way of finding her, if not found upon the bottom board, than by shaking her out of the case upon the ground in front of the hive, and picking her up from among the bees. In

this even, sometimes I fail, but by placing a queen-excluding honey-board between the hive and its bottom before the bees pass in, I surely have her every time. Another matter, especially in the fall, in connection with this shake out function I might mention is that in shaking the bees from the cases in front of the hives, I find that I often shake out a little sprinkling of honey, should the combs contain some that is thin. This, if continued, will collect about one a small army of robbers, which will make operations quite unpleasant. So in this respect I say, be careful would you avoid it.

Another feature in the summer management of this hive I wish to note is found in the hiving of swarms. To make the most out of the honey flow in my locality, I find it absolutely necessary to practice the contraction system of hiving them. This, with the above hive, is accomplished by using one section of the brood chamber with the queen excluding honey board above it, the surplus receptacle on top of this, and the brood frames filled with starters or wired foundation. This, I find, makes a most excellent arrangement for securing the most honey, either comb or extracted, provided the bees will accept it and remain; but in my own case, I find that four out of every five swarms hived in this way will leave the hive the day following, despite shade, ventilation, or any other such means as I could devise, the only remedy being to give a full sized brood chamber. This, for my locality, practically condemned the hive, and of course had to be overcome, or the hive discarded. From the fact that they would remain with a full sized brood chamber, I, in three or four days evolved the following simple method to satisfy their notions, and cause them to remain, it was as follows: Hive them in a full sized brood chamber the lower section being empty, the upper one filled in the usual manner with frames of wired foundation, or starters. This makes of the lower section nothing but an empty box. Forty-eight hours after, or in the forenoon of the second day drive a little smoke into the entrance of the hive, the cluster of bees in this lower section will at once pass to the upper part of the hive, break off the little piece of comb, less in size than one's hand, from the lower part of the upper section, and remove the lower empty one. This, with me so far has been without an exception a success, and is performed in about as little time as it takes to describe it. Aside from these points which I have mentioned, I have experienced so far no other difficulty in the adoption of this hive into my apiary, except it be that of first cost.

As against these I have found, that owing to its peculiar construction, I am enabled to manipulate the brood chamber throughout the year,

without scarcely ever removing a frame, and in a manner more satisfactory than I ever before was able to do it. Another feature I prize very highly, is being able to handle the different sections, or any combination of them, without ever disturbing the frames or combs within. Never, until I had seventy or eighty colonies in these hives, did I realize how much care had been exercised, and time spent in keeping my hanging frames in place. With its arrangement of frames the different cases, either brood or surplus, can be handled as so many empty boxes, and to arrange the hive to the different requirements of the colony, it only becomes a matter of properly piling the different parts without ever looking at a frame, and with no danger of crushing bees. It is also the fixedness of the frames, along with their shallowness, that renders the shake-out function possible, a feature I highly prize, although with me as yet impractical when the combs are heavy with honey.

The comparative freedom from robber bees when working with it during that season of the year in which they are troublesome, I would strongly commend. When I had but few bees, this was but a small matter with me; but as colonies began to near the hundred mark, trouble from this source began to increase in an almost compound ratio, and anything that would lessen this difficulty, was appreciated by no one any more than by myself.

Besides these points which I have mentioned, there are many more, all of greater or less importance, which I have found in adopting this hive; and all of them tending more or less to make my venture a success. This is written wholly from the standpoint of my own experience, with no desire to boom the article in question, but rather to set forth a few experiences in its adoption, (not necessarily the most important ones) as realized by me in this locality.

A. E. HOSHAL.

Beamsville, Ont., Feb. 5, 1891.

FOR THE CANADIAN BEE JOURNAL.

Reflections By No. Two.

DR. MILLER is troubled with sleeplessness, Bee problems and planning seem to disturb his rest, and intrude themselves during his devotions. The Dr. is in a bad way—he should give up the problems on Sunday and attend to the sermons. Brother Root, as is his wont, falls into line with the Dr. and acknowledges himself afflicted with the same

weakness. The Dr. fights his besetting weakness by looking the preacher straight in the eye. Mr. Root thinks Satan is after him on such occasions. Brethren take heart of grace and “Resist the devil and he will flee from thee.”

Who are the sticklers for pure Italians? The men who make a business of selling bees, and those who are purchasing for the first time.

Why do atmospheric conditions affect the honey flow? Because plants elaborate nectar from the constituents of the air, and not from the earth.

Dr. Watts knew nothing of kee-keeping, “And gathers honey all the day from every opening flower;”

Is not orthodox. Neither is:

“And labors hard to store it well with the sweet food she makes.”

It is more than probable “Satan finds some mischief still for idle hands to do.” See “planning” in *Gleanings*.

Dr. Miller says there is no such thing as “close-framed friends,” he says it is “closed-frame friends.” Well, never mind the mistake I made; but tell us what kind of frames those friendly chaps are moulded on. Are their heads set well down upon their shoulders and their *assa nominata* drawn closely up to the dorsal region? How is the whole articulation of the frame work tightened? anyway.

NUMBER TWO.

FOR THE CANADIAN BEE JOURNAL.

Disposing of Unfinished Sections.

IN REGARD to the handling of partly filled sections, I have seen nothing advised beyond keeping them over till next season to return them to the bees.

I have found that such sections as contain an insufficient quantity of honey to be saleable can be treated as follows: Let the work-room be cool enough to allow the wax to break easily close to the wood, then with a sharp, thin-bladed knife cut out the honey. If cut close to the wood there is no leakage except, perhaps, from two or three cells. Wrap each piece carefully in tissue paper, place in a box, glazed or unglazed. You save the section. The tissue paper can be had for less value, or about the rate of 17c to 80 lbs. of honey.

I have handled so far about 100 lbs. of comb-honey in this way, most satisfactorily to myself and the buyer.

MAXWELL LEPPER.

Picton, Ont., Feb. 21, 1891.

CAPPINGS.

CUT FROM A VARIETY OF COMBS.

HONEY-DEW SCARCE IN A WET SEASON.

This question was up for discussion at the Ontario, and the statement was made and confirmed by several, that honey-dew was most plentiful in hot, dry weather. This view is confirmed by the following experience of Mr. E. W. Powers, Tennessee, as it appears in *A. B. J.*

"In the spring of 1888, we had a great deal of wet weather. About April 15 it cleared up, and it was fine for about six weeks, with but an occasional shower; the temperature ranging from 80° to 85° during the day and below 65° or 70° at night, with a gentle breeze from the south west. On April 15, honey-dew could be seen, this being earlier than common for it to make its appearance, and by May 10, the forest growth, such as oak, poplar, hickory, linden, etc., was actually shining with it. About June 10, a heavy rain washed it all from the trees, but within 48 hours it could be seen accumulating again. In three or four days the temperature changed, going up to 90°, and again it rained, and the honey dew disappeared for that season."

HOW BUSY BEES IMPROVE THEIR SHINING HOURS.

Some wag writes as follows in the *Toronto World*.

"The busy bees, bumble bees, bustling bees, wasps and butterflies are all laid up at winter quarters in the city. Their temporary winter quarters are in the hay now, under Mr. Shaftesbury's barn. The busy bees have a benefit society for members who may get lost in country orchards, poisoned in the garden or lamed in the clover fields, while in search of honey. At the annual meeting the other day several wasps crept under the barn and made things pretty lively. The queen bee, several bumble bees and butterflies were alarmed that the bees would sting and prevent them going calling on New Year's Day. The busy bees' benefit society is run on the mutual system. The ballot is a primrose which they enclose in a tiny envelope made out of a leaf of pink clover. This is handed to the queen bee, who stays under the barn all the year round, except a couple of months at Saratoga or the Pacific Coast. The queen keeps several pretty butterflies to see that the honey the bees bring in from the country is kept cool and fresh and sweet. The wasps are kicking—like the wasps in separate schools—they want secret voting by ballot. The bumble bees, who stay at home and help the queen eat honey, don't want any such thing. The queen was so angry at one wasp, that she threatened to throw him out into the snow to die. He had charged the queen with extravagance and keeping too many butterflies to look after the honey.

For every dollar's worth of honey given to the families of the working bees who get lost in the woods or die, the queen and the butterflies, who stay at home and have a good time, keep 23 cents' worth. Those wasps are a great nuisance—they sting and say unpleasant things. However, they were all voted down, and the old queen still reigns. The butterflies are all right for another year. The bumble bees can laugh and grow fat, while the working bees have to pack their grips, rustle around the country barns and wait for the flowers that bloom in the spring. A. KING B."

HONEY AS A TAPE WORM REMEDY.

The *Medical Brief* says, The most successful pumpkin-seed remedy is made as follows:

Peeled pumpkin-seeds.....	3 ounces.
Honey.....	2 "
Water.....	8 "

Make an emulsion. Take half, fasting, in the morning, remainder half an hour later. In three hours time two ounces castor oil should be administered. Used with great success.

SEPARATORS.

This is the special subject for discussion in the February issue of the *Review*, and of all the articles I think R. L. Taylor comes about as near to the actual facts of the case as any of them. We have never been large producers of comb honey here at Beeton, but sufficient to enable us to decide clearly enough for ourselves, as to which is the best—the use or non-use of separators. The whole question resolves itself into one of profit to the bee-keeper. If more honey can be obtained without the use of separators, and I am of the opinion that such is the case, then separators will not be largely used. There is no doubt but that nicer, straighter combs may be obtained with separators, and they will probably be of a more even weight, which would be an advantage to any one selling sections "by the piece," but if the drawback here in Canada is the same as it is in the United States, where, according to Mr. Taylor, he can "discover no appreciable difference to wholesale selling price," the beauties of nice straight combs and even weight will not count for much. The experience of some of our leading comb-honey producers here in Ontario would make interesting reading. In summing up the whole matter Mr. Taylor Says:

"For profit alone, use no separators; if straighter combs are desired use the *L* separator with separators; if the eye and the taste are to

be gratified at the expense of financial profit use single-tier wide frames with separators."

SORE THROAT REMEDY.

Sore-throat remedy, from the *Medical Brief*:

Amm. tinct. guaiac.....	4	draohms.
Comp. tinct. cinchonae.....	4	"
Potass. chlor.....	2	"
Extracted honey.....	4	"
Powd. acaciae.....	q. s.	
Water.....	2½	ounces.

To be used as a gargle, and a teaspoonful may be swallowed every second hour.

RENDERING COMBS.

F. A. Salisbury writes in *Gleanings* :

"My plan, whereby I can render 100 pounds of wax from old combs in three hours, is as follows: Get a barrel that is good and strong, and 3/8 steam-pipe, long enough to reach from a steam boiler to the bottom of the barrel. Copper pipe would be better, but I find the small surface of the pipe touching the wax does not make any appreciable difference. You want a valve to shut off the steam, four pieces of pipe five inches long, an elbow, a cross, and three caps. In the pieces of pipe five inches long drill three ¼ in. holes, spaced about two inches apart; screw an elbow on the bottom of the pipe coming from the steam-boiler; then one of the short pieces of pipe in the elbow; now screw on the cross, then the three pieces of pipe, and put a cap on the end of each. Turn the pipes until the small holes point all one way, so the steam in issuing, will set the water whirling. Now fill the barrel one-fourth full of clear water. Put in one pound of sulphuric acid: turn on the steam, and when boiling put in the old combs. Let all boil until heated thoroughly, and stir with a large stick at the same time.

Now you will want a press. Mine is simply a box made large enough to hold three racks, made of 3/8 x 1/2-inch square sticks 15 inches long, nailed to two end pieces 15 inches long, so there will be 1/8 inch between the slats. In the bottom of the box I have a tin dish one inch deep, and it just slips down inside nicely. At one side the tin is turned down, and a hole is made in the bottom of the box for the wax and water to run out. Get a rim two inches wide and twelve inches square made from 3/8-inch stuff, and three pieces of burlap three feet square. Lay one of the racks in the tin dish in the bottom of the box; on this the two-inch rim; over this one of the pieces of burlap. Press the burlaps down in the rim, and dip the melted wax over into it until full to the top of the rim. Bring the burlaps over the top; take out the rim; lay another rack on the top of this, and so proceed until you have the three filled; then place a follower on top of all, and a common jack-screw on top of the follower. Make a frame out of 2x4 scantling to go under the box and come to the top of the jack-screw. You will want two bolts to go through the top and bottom pieces of the frame. Have them of 5/8 round iron, and screw the nuts up tight. Put the top piece of the frame over the jack-screw, and turn the screw slowly so as to give a

chance for the wax to run out. After it has stopped running, take out the refuse, and you will find the wax nearly out. You could not get out of a barrel of comb, after pressing, if it were possible to get it out, over a teaspoonful of wax. We have tried a number of ways but the above is the best."

BINDING THE C. B. J.

E. J Baird tells the readers of *Gleanings* how he binds his together. We adapt the method to the C. B. J. which is exactly the same size,

"You will need some brass wire, as heavy as, or a little heavier than a stout pin; a hammer, an awl file, or a pair of snips to cut the wire; pliers to bend it; paste, and some heavy tough paper.

The C. B. J. is ten inches long. Get a piece of soft wood that length, an inch or more wide, and a quarter of an inch thick. An inch and a half from the end, and one-fourth inch from the edge, make a hole through this stick with a small gimlet, or with the awl; and, a half-inch further on, another. Make a like pair at the other end, and another pair at the middle. Now take the cover and advertising pages, and the little wires that hold the leaves together, from the issue for Dec. 15. Lay it, last page up, on a soft board; lay the stick on it, the edge with the holes in it parallel with the back of the magazine; and, putting the awl in the holes in the stick, punch similar holes in the paper. Lay it off, last page down, and treat Dec. 1st in the same manner, and so on to July 1st. Twelve numbers make a handy volume to bind or to read. Now cut three pieces of the wire, three or four inches long, and bend them in the shape of a double-pointed tack, the points half an inch apart and an inch and a half long. Cut two pieces of the heavy paper about 7 1/2 x 10 1/2; and, three-fourths of an inch from one edge, punch holes like those in the journals. Put the bent wires in the holes in one piece, and lay it on the table, wire points up. Then take the issue for Dec. 15th and put the wires through the holes in it, and so on until you have as many numbers as you wish to bind in one volume. Put the other piece of heavy paper on top of these, and hammer the whole down around the wires.

Don't be afraid to strike hard: get it solid, and then cut the wires down to within one fourth inch of the book, and clinch them, bending the points toward each other. Now paste the extra half-inch of the covers over the back of the book, first one; and when that sticks well, the other; and across the back, and extending an inch or two on the covers, paste a strip of thin linen. Take the cover pages of the BEE JOURNAL for July 1st, and cut off the last leaf close to the print, and another cover cut close to the print of the first page, and paste these over all, putting on the back cover first. Now put it under a press of some kind until dry; then if you want to trim the edges, and can't get to some printing office where they always have machines to do this work, clamp the edge tightly in a vice, with a smooth straight-edged board between the jaws and the paper, and with a sharp draw-knife you

can shave the solid paper almost as easily as wood. But remember that I said, a *sharp* draw-knife.

A good paste is gum tragacanth, softened in pure water, with a few drops of spirits of camphor or carbolic acid added, to keep it from moulding. It should have only enough water to thoroughly soften it.

SELECTIONS.

Mice or Robbers.

SOME little time ago I gave a report of my summer's work through the columns of THE CANADIAN BEE JOURNAL, but since then I have sustained a loss for which I cannot account. As reported, I visited my bees about the 1st of October and found my five colonies well supplied for winter, and as there had been little or no frost up to that date, I decided to leave them on the summer stands until I had made up my mind whether or not I should winter outside. At first I decided to winter in the cellar, but thought it too damp for them on account of steam arising from potatoes being boiled for pigs. Finally I decided to winter part in a clamp outside and the remainder in a vacant dwelling house on the farm where nothing would disturb them.

The month of October continued very fine throughout, although the bees seemed to be doing little or no work; consequently as November opened favorably, I considered it very opportune and timely to pack them on the shelf for winter. I constructed a clamp under a thorn hedge with a capacity of three hives, on the bottom of which I put about six inches of dry chaff, placed two hives into it, but as I was about to place the third into position I thought it felt very light, or, in other words, that their supplies had decreased very much since my last visit. I placed my ear to the entrance of the hive, but no sound of busy life was heard, (of course, before moving I had closed the doorways with fine wire gauze). I next proceeded to remove the cover and some frames, that I might see what had happened, when to my surprise the colony was *non est*. At first sight it seemed as if they had died of starvation, as not a capped cell of honey remained in any of the nine frames of combs, the loss of which I attributed to robbing, as I had frequently seen lively skirmishing going on near the entrance of this hive some time before, between them (the Carniolans) and a hive of Italians near by. I felt a little uneasy at the time, but being a young hand at the business I took no further notice of it. Upon closer examination I found all the bees piled in one corner of the hive very much disfigured, apparently as if ground up in a grist mill, while the combs showed signs of foul play as if eaten away in places by some insect. Another thought suggested itself, that mice had made their way in; but I believe that very improbable, as I don't think mice could obtain an entrance through the narrow doorway. But here's what puzzles me, what became of all their honey? Will some experienced bee-man kindly give me his opinion on the matter through the columns of THE CANADIAN BEE JOURNAL.

Charlottetown, Feb. 5, '91.

You should easily be able to tell

whether the mice had done the damage or the honey had been removed by robbers. Where robbers have removed the honey, the cappings would be gnawed off very irregularly, whereas the mice would not remove the honey unless it were in a granulated state. They would be apt too to cut roads up between the combs.

A PROFITABLE SEASON.

I began the season of 1890 with 35 colonies in fair condition, with the exception of two of three colonies. Increased to 54, and took 2,700 pounds of honey, 1,200 of which was comb honey in one pound sections. The spring was rather unfavorable for bees until fruit bloom, when they gathered considerable honey from that source. The main flow, in fact the only flow of any account, was from white clover and thistle. Basswood, as usual in this locality, yielded very little, and fall flowers were a total failure on account of the early frosts. On the whole, I consider the past season a very good one for bees, and had I been running them exclusively for extracted honey and kept down increase, I think I could have shown a pretty fair yield. As I was not able to be with the bees all the time during the honey harvest, having to attend to other farm work as well, they did not get the attention I would like to have given them; consequently swarming was excessive, and much valuable time wasted.

I would like to say a word about queen excluding honey-boards. Last season was my first to use the perforated metal, and I must say that should I continue to keep bees it will not be the last. For comb honey I do not need it, as I am not troubled with queens going into the sections, but for the production of extracted honey I think it is the right thing in the right place. I do not think it increases the amount of honey stored, but by its use we can obtain honey of a better quality, as we can tier up and leave it on the hives till the close of the honey harvest. The labor of extracting is greatly lessened, as we have only to handle about half as many combs to extract the same amount of honey. We can also prevent the raising of a host of bees at the close of the honey season when they are not wanted.

Next season I intend to try using starters in the brood chambers when hiving swarms. Hitherto I have used full sheets of foundation in wired frames.

My bees are out doors packed in clamps. They went into winter quarters in good condition and with plenty of stores. We are having rather cold weather, and the ground is almost bare of snow. I consider lots of snow to be an important adjunct to successful out-door wintering, and were my bees covered with two or three feet of it to remain till April, I would have no fear for their safety.

H. F. GARVEY.

Ingersoll, Jan. 5, '91.

* * If you require catalogues, circulars, note heads, envelopes, or anything in the line of job printing give us an opportunity of estimating.

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.

Bee-Keeping for Profit.

QUERY No. 287.—What amount of honey do you consider each colony should yield, taking one year with another, to make bee-keeping give a *fair* profit for the money and time expended, estimating increase at 50 per cent.? I ask this question after reading the replies to Query 283.—A McJ.

H. D. CUTTING, CLINTON, MICH.—Fifty pounds.

B. MCKNIGHT, OWEN SOUND.—Fifty pounds spring count.

ALLEN PRINGLE, SELBY, ONT.—Say 50 to 60 pounds.

C. W. POST, MURRAY.—Ninety pounds extracted, 50 lbs. comb.

J. F. DUNN, RIDGEWAY—I think this is a question the querist can best answer himself.

EUGENE SECOR, FOREST CITY, IOWA.—I should say that depends on the cost of producing it, and the price it brings.

PROF. A. J. COOK, LANSING, MICH.—If we were sure of twenty-five pounds of comb or forty of extracted, I think bee-keeping would be profitable.

G. A. DEADMAN, BRUSSELS.—Forty pounds of extracted honey per colony, spring count, providing you winter your bees without losing more than 5 per cent.

M. EMIGH, HOLBROOK, ONT.—I suppose a good deal depends on the time and money the man expends. Fifty pounds to the colony will satisfy me without increase.

G. M. DOOLITTLE, BORODINO, N. Y.—All you can coax out of the bees. I started out on the basis of 20 lbs. comb honey, but have averaged about 4 times that during the last 16 years.

J. ALPAUGH, ST. THOMAS, ONT.—The above query is a funny one. We will say that one man can handle 100 colonies, and do it right one year with another; out of them he wants to make \$500; he will be safe at 35 lbs per colony if he can sell his increase at \$5.00 each.

J. K. DARLING, ALMONTE.—The number of colonies would have much to do with the required yield per colony. The greater the number of

colonies, the smaller the average yield to give equal profits. Fifty pounds per colony from 50 colonies or more, would be better than some other branches of business, but would be a very slow process of getting rich.

JAS. HEDDOW, DOWAGIAC, MICH.—Who can tell? What one man would call a "*fair* profit," another would not, owing to difference in different men's circumstances and ideas of reasonable expenditure in life. Another thing, some bee-keepers get twice the price for their surplus honey that others do; and again, some use such appliances and methods that their surplus costs them twice as much as that of others.

J. E. POND, NORTH ATTLEBORO, MASS.—It depends largely on cost and expense. If 100 per cent. can be gained, I don't know of any business that will pay better. A profit of \$8.00 per colony ought to be enough to give satisfaction. \$5.00 in many locations should pay well. As compared with farming in my section of the United States a profit of \$5.00 per colony, will give better returns than can be gained from farming generally, and will prove almost as remunerative as stock raising, unless one is "inside the ring" and can get fancy prices.

G. W. DEMAREE, CHRISTIANBURG, Ky.—At the present prices for honey as I find it in my market, I could do very well at 33 1/3 pounds per colony. Last summer was what I call an average season, and I got about 66 2/3 pounds per colony. My sales of comb honey averaged about 16 cents per pound, and honey extracted about 12 1/2c. or 13c. You can make your own figures in accordance with the price you can get for your honey. Some years I may get 100 lbs. per colony, and some years—well, an unknown quantity—mighty little; hence the *average* honey crop is a foggy guess.

BY THE EDITOR.—When this question came before me my quick reply was 50 lbs. of extracted honey per colony, spring count, and I find my ideas are confirmed by most of those who answer the question. Some of the gentlemen are very modest, however, and are satisfied with even less.

Separators.

QUERY No. 288.—(1) In producing comb honey, which is in most general use, a super with separators or without? (2) Which do you prefer and use?—B. L.

PROF. A. J. COOK, LANSING, MICH.—With separators. (2) Separators.

EUGENE SECOR, FOREST CITY, IOWA.—(1) I don't know. (2) I like separators.

G. A. DEADMAN, BRUSSELS.—(1) I should say without. (2) No separators.

R. MCKNIGHT, OWEN SOUND.—(1). Don't know. (2). Have given up the use of separators.

J. ALPAUGH, ST. THOMAS, ONT.—(1). I do not know. (2). I use them without separators.

G. M. DOOLITTLE, BORODINO, N. Y.—I use wide frames with separators, and am well pleased.

J. F. DUNN, RIDGEWAY, ONT.—(1). A super with separators I think. (2). A super with separators, always.

C. W. POST, MURRAY.—(1). No separators used in my locality. (1). I prefer a super without separators.

ALLEN PRINGLE, SELBY.—I do not know what the "general usage" is, but I use separators mostly in producing comb honey.

M. EMIGH, HOLBROOK, ONT.—(1). About equal. (2). I prefer a super holding nine tiers of sections with two separators, leaving three sections between each separator.

DR. C. C. MILLER, MARENGO, ILL.—I don't know, I think with. (2). I have tried both ways and couldn't do without separators except to raise honey for home use.

H. D. CUTTING, CLINTON, MICH.—(1). In my locality a super with separators. (2). I prefer and use separators every time, with anything over $\frac{1}{8}$ thick.

J. K. DARLING, ALMONTE.—(1). I don't know. (2). For home trade I prefer no separators. If honey is to be shipped perhaps the sections would be built in a little better shape with separators. Less honey in the super, with separator.

G. W. DEMAREE, CHRISTIANBURG, KY.—(1). I don't know which is in general use. I presume that there are now more sections produced without separators than with them. (2). I use separators with some hives, and on some I don't. It depends very much on the skill of the apiarist as to how nice his honey will be, separators or no separators.

JAS. HEDDON, DOWAGIAC, MICH.—(1). Without separators. (2). I use both, and hardly know which I prefer. Very much depends upon the honey market one drives to, and the success he has in getting nice, straight cards of honey, without the use of separators. It is quite a trade to get nice combs in sections where no separators are used, but it can readily be done. All depends.

J. E. POND, NORTH ATTLEBORO, MASS.—I use separators altogether, for with them I can get my sections so filled that they will all pack nicely. I do not find that any more honey is stored when they are not used, and to me the fact that all sections will pack, is a matter of value. Others may differ, but then localities differ also. In answering these queries it must be borne in mind that, each answers from his own standpoint; so the readers must figure for themselves out of the multiplicity of answers given.

BY THE EDITOR.—It depends on the width of sections. Broad sections should have separators, or, rather, they require them more than the narrower ones. If we wish our comb honey in the finest possible shape separators must be used, but by inverting the sections or section crate at the proper time, almost as nice honey may be secured—nice enough, at all events, for all practical and commercial purposes. I see that most of the Canadian bee-keepers who reply to this question say "no separators," while most of the Americans advocate their use.

Bruce Bee-Keepers Association.

THE above Association met as per adjournment at Edengrove on January 30th, with a good attendance and interest, and several new members gained.

The meeting was opened by a paper from Abram Rowand, "The Bee at Home."

"Which is the best way to feed Bees in winter to keep from starving till safe to open?"

Feed candy on top of frames was considered best.

"Full sheets of foundation or starters, which is most profitable?"

Majority in favor of full sheets. Get too much drone comb by using starters.

"Cellar or clamp wintering, which is considered the best?"

Cellar wintering, where practicable, was considered best; should have some protection in spring after setting out of cellar.

"Do bees work on potato vines, and get poisoned by so doing?"

None present have seen bees on potato vines.

Controlling Increase.—John Harkley practices the following plan: When colony swarms, set swarm on old stand; turn the old hive facing opposite four feet at the back of swarm, so as to allow the field bees to go in with new swarm, then turn and set beside new swarm to allow young bees to go into new swarm, then put the frames with brood wherever there is room for them. By so doing you let your bees swarm and still have no increase.

Some others were in favor of contracting brood-chamber, and giving room above.

A. TOLTON, Sec.

A CORRECTION.

An error occurs in E. L. Goold & Co.'s ad. in this issue. Their address is Brantford, not Brampton.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

BEETON, ONTARIO, MARAH 1, 1891.

We are advised of the shipment of a large quantity of honey knives from Sheffield. The price of those now coming will be a trifle in advance of the figures quoted in our catalogue. Particulars will be given on their arrival.

I was from home attending the annual meeting of the Canadian Press Association when the proofs of the issue of February 15th were read, and I notice that the word *Mutual* has been substituted for "National" in the editorial note on page 417.

CLOSING THE ENTRANCES WHEN TAKING BEES OUT OF WINTER QUARTERS.

Mr. W. C. Putney asks how we "manage when taking bees out of the cellar in the spring: whether we stop the entrances of all the hives at once, or only one at a time as we take them out?" We always put the entrance blocks on all the hives at once, and before we begin removing them, so that the doors may be thrown wide open, and lots of light admitted.

EXPERIMENTS AT THE MICHIGAN AGRICULTURAL COLLEGE.

Quite a number of experiments in the way of improved bee-keeping are to be tried at the Michigan Agricultural College the coming season. Prof. A. J. Cook will be in charge, and associated with him will be Mr. J. H. Larrabee, of Vermont. One of the first experiments to be tried will be in the way of ascertaining whether "special planting for honey" will ever pay. It has been pretty well decided that generally it will not; but perhaps further experiments may prove the contrary. It is also proposed to try experiments to find all the factors that enter into ill-success in wintering.

BOOK NOTICES.

Stolen America, a story of Bermuda, by Isobel Henderson Floyd, Jersey City Heights, N. J.

The above is the title of an interesting novel which we have received directly from the hands of the author. We have read it with much pleasure, even though we do not anticipate that

there is any likelihood that the tocsin of alarm which she has sounded will be realized; she shows, however, the very defenceless state of the United States, in case England wished to make war on it, having Canada on the north, and Bermuda on the south and east, with the best naval stronghold in the world. It lies in the power of the English to give the United States untold trouble, if they were to so will. The plot is laid in Bermuda, and the events which are portrayed in the story are nicely put together.

60 LB. PACKAGES SHOULD HOLD 60 LBS. NET.

In our advertisement regarding honey, we specify that we can make no allowance for any other style of package than square 60 lb. tins; the reason for this is that we cannot get pay for promiscuous styles of tins. Hereafter we shall have to provide that each shall hold just 60 lbs. net weight of honey. We have just received a shipment, each tin of which holds 65 lbs. of honey. As we quote our customers a lump price of so much per 60 lb. package, it will be seen how awkward it makes it for us, to have a lot of tins holding anywhere from 60 lbs. to 65 lbs. Why not make all tins to hold just the neat weight you ask? That is just it. The tins we supply will not hold more than 61 or 62 lbs. at the outside, and this allowance must always be made to cover honey of different densities. The trouble is with the local tinsmith, who has no pattern to go by, and who generally makes the can as big as his sheets of tin will permit, not taking into mind any objectionable features which such a course may afterwards have.

SHIPPING BEES TO BRITISH COLUMBIA.

A correspondent has asked me to give him instructions as to the preparation of colonies for long distance shipment, he having an order for 30 colonies to go to British Columbia. I do not remember that we have ever sent any full colonies to that country; but we have, on two or three occasions, sent two and three frame nuclei, and they have always reached their destination in safety. We have, however, shipped full colonies to Nova Scotia, New Brunswick and Prince Edward Island, and in each case they arrived in good condition. Send by express. Carefully select combs that are well attached to the sides, top and bottom of frame. Each colony should be given 15 to 20 lbs. of stores, evenly distributed throughout the different frames. Fasten the frames in place with wire nails driven through the top bars at either end down into the sides of the hives. We never fastened the frames at the bottom. It they are fastened rigidly, they are very apt to be broken out by sudden jolts from

shunning. On the top of hive fasten a super or screen, at least four inches high, and covered with wire cloth, to permit of the bees clustering over the frames, should they get too warm and require air. Wire cloth will be tacked over the entrance to prevent the escape of the inmates of the hive, and to permit of sufficient ventilation. I do not know but what a narrow rim, such as Dr. Miller uses in wintering, would be an excellent thing just here. If one were used the bees could certainly not clog up the entrance or bottom board, in case an unusual number were to die during transit, thus closing off the ventilation to the rest. On each hive tack directions to the express messenger, instructing him which way the frames run, and that the hives should always be placed with the frames running lengthwise of the car so that a sudden jar will not have a serious, if any, effect on the comb. In addition to this it is well to write a letter giving full instructions to the express messenger, which, have the agent at the starting point, attach to way-bill. Let the letter contain particulars as to how the hives should be placed, and especially if they have to be placed one above the other. Cut three or four pieces of scantling the width of the car, and send them along for use in placing between the hives in teiring up, so as to admit of a free circulation of air around and through the hives. Tell the messenger also to wet a sponge and lay it on top of the wire cloth in the case of any hive where the bees seem to show a tendency to require water, by clustering too largely on the wire cloth over the tops of the frames.

The *White Mountain Apiarist*, a 12-page monthly is on our desk. It is published at Berlin Falls, N. H. by A. D. Ellingwood at 50c. per year.

The readers of the C. B. J. will please excuse any shortages in these editorial notes on account of the illness of Mr. Macpherson. He fell on the ice last week, suffering a rather severe concussion of the brain. He is now out of danger but will not be able to attend to his customary duties for some time yet.

MISSOURI STATISTICS.

■ The Secretary of the Missouri State Bee-Keepers' Association furnishes the following statistics for 1890 :—

Number of bee-keepers reporting, 142.
Number of colonies—Spring, 5,560; Fall, 6,610. Pounds of honey—comb, 77,908; extracted, 88,202. Pounds of beeswax, 979. Twenty bee-keepers, with 450 colonies, make

no report on honey. Largest number of colonies reported by one person: Spring, 550; Fall, 900. Smallest number: Spring, 3 Fall, 4. Average number of pounds of honey per colony reported, 29.85. Season generally, very poor for honey. Apiarists who have their bees in modern frame hives, report them in fair condition. Many of the bees in old box-hives will die before spring.

The Third Annual International Fair will be held at Detroit, Mich., Aug. 25th to Sept. 4th. Full particulars may be obtained of the Secretary, George M. Savage, 7 Merrill Block, Detroit Mich.

A Word of commendation from our readers to those not among our subscribers will be more potent than anything we can say. If you like our JOURNAL—please let your neighbors know it, and let us thank you in advance for this favor.

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Imported Indian Games !

1st prize winners at Toronto and Brampton, 1890. Eggs, \$5. Per setting. White Wyandottes, winners at Brampton, Eggs, \$2 per 13. Golden Wyandottes, Rose Comb Brown Leghorns, \$1.50 per 13. All prize winners at Brampton

MAMMOTH PEKIN DUCKS

Eggs, one dollar per 12.
My stock is second to none. Eggs guaranteed fresh and well packed in baskets. Give me a trial. I am here to please you. JOHN A. NOBLE, NORVAL, ONT.

EXCHANGE AND MART

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

BEEES

PHOTOGRAPHIC APPARATUS—worth \$50; Jewelers' Regulator worth \$75, to exchange for anything useful in the Apiary. W. E. BRAND, Granby, Que.

100,000 Norway Spruce, 10 to 14 inches, \$3 to \$4 per 100, also strawberry and rasp-berry plants. Will exchange for bees or B. Leghorn eggs. Campbell Bros. Simcoe.

GREAT CHANCE for the Beekeepers—For sale very cheap, one 10 inch comb foundation mill, (W. Pelham make), new and used very little. Will sell for \$20 cash. L. Deslandes, P. O. Box 10, Acton Vale, Que.

FOR SALE—Linden Honey, extra fine and white, well ripened honey, put up in cases of two 60 lb. cans at \$13.00 per case. Sample sent for 5 cents. W. E. MORRISON, Alvinston, Ont.

EXTRACTED HONEY—For Sale, 2000 pounds, fine quality, \$6 per 60 lb. can enclosed in wood. Smaller packages of 7, 15 and 30 lbs. also for sale. E. & G. W. BARBER, Hartford, Ont.

FOR SALE OR EXCHANGE—50 colonies of Bees in 8 L. frame hives, for lumber wagon, double set of harness, or bob-sleigh, or anything useful on a farm. Address W. ELLIS, St. David, Ont.

FOR SALE—Forty colonies of Italian and Hybrid bees, guaranteed in good condition. Wired frames 9 x 14 inches inside. Combs drawn from full sheets of Dadant's foundation. Sample empty hive sent for inspection to intending purchaser. Address H. T. GARVEY, Ingersoll, Ont.

2,500 LBS. HONEY for sale, good quality, light color, from 10c per lb. down to 8c., according to quantity. Also about 300 lbs. comb honey, quality first-class, for which I would like an offer. GEO. WOOD, Monticello P. O., Dufferin Co., Ont.

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

BE SURE AND GET GOULD & CO'S

—PRICE LIST OF—

HIVES, EXTRACTORS, FOUNDATION, &c., before ordering elsewhere. Address E. L. GOULD & Co., Brampton, Ont.

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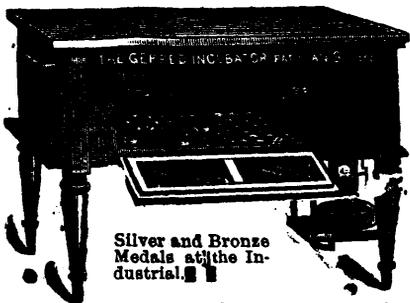
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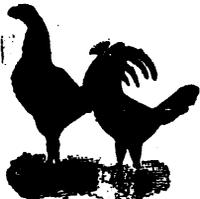
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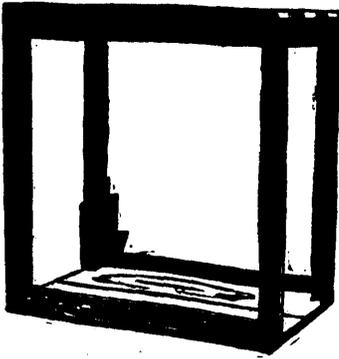
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EGGS, \$1.00 for 13.

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My breeding yard of P. Cochins for the year 1891 has
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