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THE CANADIAN BEE JOURNAL

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

Vol. VI, No. 15.

BEETON, ONT., NOV. 1, 1890.

WHOLE No. 275

THE CANADIAN BEE JOURNAL

Devoted exclusively to the interests of the Honey Producer.

Seventy-five Cents per annum in Advance.

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All advertisements will be inserted at the following rates

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Rate	1 in.	2 in.	3 in.	4 in.	1 col.	page
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THE D. A. JONES CO., LD., Beeton, Publishers.

PUBLISHERS' NOTES.

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

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

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

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

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

When sending in anything intended for the JOURNAL do not mix it up with a business communication. Use different sheets of paper. Both may, however be enclosed in the same envelope.

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

Clubbing Rates.

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

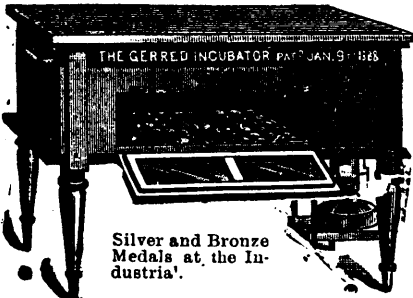
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Breeder of Exhibition
BARRED P. ROCKS
White Wyandottes,
S. G. and Colored Dorkings
Imperial Pekin Ducks.
BIRDS FOR SALE AT
reasonable rates.
Eggs, \$3.00 per Setting.



Silver and Bronze
Medals at the In-
dustria'.

A 1 size, 50, 100 and 200 egg in-
cubators. Send for descriptive
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FOR SALE—A number of fine cockerels and
pullets of the following breeds: Barred Ply-
mouth Rocks, Silver Wyandottes; S. S. Ham-
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at \$1.50 to \$2.00 each.

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

E. A. VIDAL
P. O. Box 548, Sarnia, Ont.

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WYANDOTTES !**



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

JOHN A. NOBLE, Norval, Ont



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

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

ANGUS, ONT

W. T. TAPSCOTT

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

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

WITH A FEW OF OTHER VARIETIES.

**This Year's Breeding Stock For
Sale, Cheap.**

Prices greatly reduced between now
and November 1st.



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

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BRAMPTON, ONT

EGGS, \$1.00 for 13.

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

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

E. H. MOORE, Melrose, Mass.

MENTION THIS JOURNAL.



This Space belongs to
C. H. McRae
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Poultry Yards.

DUNVILLE, ONT.

Where choice **BLACK**
MINORCAS and **S. C. B.**

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

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VOL. VI, No. 15.

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WHOLE No. 275

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

EDITORIAL.

MR HAROLD HOVIND, head master of the High School, Christiana, Norway, is now editor of the *Norwegian Bee Journal*, vice Ivar S. Young, superceded.

An American exchange has some statistics on the growth of bee-keeping in the U. S. Where it got the information, whether from Government reports or not, we cannot say, so we give the figures for what they are worth. The number of bee-keepers is put at 350,000, over 10,000 of this number keep more than 500 hives each. The value of the honey produced by them in 1889 was over \$ 60,000,000, and the value of the beeswax produced for the same year exceeded \$17,000,000.

Foul brood is rampant in New Zealand, according to the testimony of the Honorable Secretary of the Otago B.K. Association, Dunedin, N. Z., in the *B. J.* He says that they are endeavoring to obtain legislation, and there is

every prospect of their wishes being complied with by the Government. We have forwarded a copy of our Ontario Bulletin for their information.

British bee-keepers have been getting bitten in their honey deals, and the publishers of the *British Bee Journal* have established a deposit agency, on the following plan: When strangers are dealing together, the purchase-money of the articles is deposited at their office. They acknowledge receipt of the deposit to both parties and hold the money until they are satisfied that the purchase is concluded. If a sale be effected, they remit to the seller the amount deposited less a charge of 6d. to cover the expense of postage, etc. If a sale or exchange be not effected, they return the amount deposited, less the same deduction. By this means buyers and sellers are alike secured from fraud.

We believe the *American Bee Journal* is to change its size with the New Year, when it will become a two column paper, with pages about the same size as this journal. It is certainly a desirable move, and one which its readers, who keep and bind their journals will appreciate. A full years' numbers of the *A. B. J.* as now printed makes a volume too large to handle comfortably, while the bound volume of the *C. B. J.* is just a nice size, and looks well on our library shelves.

GENERAL.

FOR THE CANADIAN BEE JOURNAL.

"It is Written," "Let us Reason, etc."

IN his present state of mind it would be useless to reply to the silly mixed up "Sentiment," of Mr. John F. Gates with any hope of conducting his excited imagination, or benefitting him in any way. A man in his state of mind is not to be "reasoned with." It is enough to point out to the reader that with all of Mr. Gates' sentiment about turning out the dear little bees to starve, he shows his "cloven foot," his hatred of mankind, because some persons bought goods of him "wood and all," some years ago, and failed to pay the bill. "Custom," with him, "is law!" No doubt of it. It is customary these days to adulterate all the food, drink and medicine put upon the market, and to sell "short weights," adding "wood" when custom sanctions it. This is now the custom, and "custom is law!" In my opinion that which is morally wrong can never become morally right by becoming a custom in any locality, or in the whole world as to that matter. What I have said is simply this: When selling honey by the pound computed by the scales, the wood connected should be deducted, but when selling sections by the piece the deal was fair, because both the buyer and seller understood the transaction.

Now, about the moral right of the apiarist to control the size of his working stock in his apiary. Our very tender-hearted friend and philanthropist, Brother Gates, lifts his eyes and his eyebrows in horror when he thinks of "destroyed" or dead bees, and feels sad about the state of the man's mind who could return thanks, *i. e.*, say grace, over honey that cost the lives of the dear little bees, when at the same time he would not dread to say grace over a dear, pet roasted chicken, or a chunk of roasted beef or pork. How hard it is to be consistent. No doubt our kind-hearted friend of the little pet bees had his bowels well filled with the flesh of some pet animal at the very moment he was sermonizing about the heartlessness of destroying bees. He is an awful good man to the poor lambs. He carries them in his bosom, fathers them, kills—yes, butchers the poor things and eats its flesh. Horrors upon horrors! Let me not igto his secrets, O, my soul!

I sometimes have sentiment. In fact the sentiment grows in my mind, because the innocent must suffer to support the less innocent—in fact the guilty. I would rather it was not

so. But since it is the inevitable, in all soundness of mind, I prefer to be consistent. Every pound of honey I get from my apiary costs the lives of an unknown number of bees. Taking year around perhaps 1,000 bees yield up their lives for every pound of surplus honey produced.

At swarming time last May and the fore part of June, though my hives were well filled with brood, there was very little hatching brood in any of them. A spell of bad weather at an unfavorable period had brought about this unusual state of things. I decided at once to make the best of this unfavorable state of things, and my course was as follows: When a swarm issued I removed all the combs containing brood from the brood chambers and supplied their room with empty combs. A queen excluder was then adjusted on the brood chamber, and a super containing the combs of brood was tiered on the excluder, and on top of the super went the surplus case or cases. The swarm was then hived in the brood chamber below the queen excluder. This was pretty tall tiering, but I relied on the large double colony to fill and work it. I was not disappointed. These double colonies gave me a paying crop of surplus. No other management would have given me any surplus in profitable quantity, because the bees making up the swarm were too old to hold out long enough to store a surplus, and in the parent hive there was not enough hatching brood to speedily recruit the numbers of the parent colony. It will be seen that under the circumstances I obtained a good surplus crop of honey by keeping the bees together, and at the same time satisfying the desire to swarm. Now these double colonies are at this writing no larger than other good average colonies. What became of all these bees? Why, they were used up in storing my crop of surplus honey! Does that fact fill our tender-hearted Brother Gates with holy horror and indignation? If not, why not? A large swarm of fierce hybrids settled near my apiary when the honey season was half gone. They came from parts unknown to me. In fact, several swarms straggled into my possession in this or some other way. Was I under moral obligation to take them up and make pets out of them? I think not. I gave them a hive, a few combs and a case of 32 sections. They spent their first filling these 32 sections, and they filled them, thus giving me \$5.12 for my time and trouble. These colonies have made a living since the honey season closed, and have taken care of a lot of combs. If I needed these bees I would feed them for winter stores at a cost of \$2.50 to the colony, and would still have a profit, but I don't need

the bees, and there is no sale for them or opportunity to give them away. Am I any more cruel because I destroy them by passing them by than Brother Gates is when he kills chickens, pigs and other domestic animals for his table, or for his profit? The idea that bees suffer like the higher order of animals needs confirmation. I make it a rule and a fixed principle to inflict suffering on none of God's creatures unnecessarily. It will be seen that Brother Gates is the real "strainer at a gnat and swallower of a camel."

G. W. DEMAREE.

Christiansburg, Ky., Oct. 13, 1890.

FOR THE CANADIAN BEE JOURNAL.

Foul Brood.

REGRET that at present I have not the act for the suppression of foul brood before me yet believing I am correct when I say there is no clause in it which prevents the exposure of honey taken from colonies afflicted with foul brood. If the information I have received is correct one of the exhibitors at the Toronto Industrial this year, hailing from Milton, has had foul brood in his apiary this summer, and this fact has brought the seriousness of the defect to my notice. To think that all those apiaries about Toronto or in the vicinity of any exhibition may be exposed to that dreadful disease is certainly serious, and the exposure of honey in such a manner may result in more harm than the sale of foul-broody colonies, as more colonies may take the germ of the disease into their hives. We may censure all we like such an act, but with some it requires the strong arm of the law to support such an act. What shall be done?

SECTIONS WEIGHED IN WITH THE COMB HONEY.

I am always willing to admit myself in error when I can see that I am. I find in some places tea and goods which easily leave the scoop when weighed are weighed without the paper. I have also learned that a great many packages said to contain a certain weight—tacks and wire nails, for instance—have not the weight in them they are said to contain, a reduction being made to pay for the package. The outside public do not generally know this, and probably the outside public do not know the sections are weighed in when buying the honey, yet the careful buyer I find asks how much the section weighs, when the bee-keeper or salesman, of course, should state the facts. The public generally say "how much does that weigh" when we place it on the scales and give

weight, when they ask how much comb honey have you there. We must answer whatever weight it is, adding, "this includes section." For an untruthful answer there is, of course, no excuse. Yet I still cannot see any necessity for deducting the weight of wood from the section, and think it would be a confusing departure.

R. F. HOLTERMANN.

Romney, Ont., Oct. 20, 1890.

Foul Brood in Canada.

AN EYE-WITNESS RECOUNTS THE EFFECTIVE WORK DONE BY THE FOUL BROOD INSPECTOR.

ANYONE who has spent a few hours with Mr. McEvoy in the discharge of his duties could hardly fail to be convinced of the necessity, in the interest of bee-keeping, for the surveillance of foul brood. I had long been satisfied in my own mind that protection ought to be given to this industry, of such a nature as to insure the man who embarks in it to make a livelihood, that his neighbor who has nothing at stake, comparatively, would not, through ignorance or otherwise, cultivate foul brood beside him, and thus jeopardize his existence as a bee-keeper. That impression, which has been deepening on my mind for years back, was immensely emphasized by the result of yesterday's ride; and, Mr. Editor, you may put your own comment underneath whatever way you please; but when I say that a large class of people—among them the non-reader, and the one-or-two-hives-for-honey-for-our-own-use folks—should be strongly discouraged, I think I say it advisedly, and that the following will bear me out.

After a drive of a couple of hours we arrived at a certain comfortable-looking village situated picturesquely amidst the hills, and there called upon the principal bee-keeper, the resident minister of the German Baptist church. We found him a man of intelligence, and particularly well up in matters pertaining to this industry; a student of the German, English and American authors. He has for years used a shallow hive with a hanging frame, and got the idea from accounts by German authors of a similar hive used in Germany. In fact, he says that, when Mr. Heddon gave his invention to the world, he wrote, informing him that he had already, the previous season, been using the same hive, only with a hanging frame.

When asked about foul brood he said that there had been some in his yard, caught from neighbors, but that it was now away; that he cured it by shaking the bees on starters, and replacing these by others at the end of three days, when he fed the bees, medicating the feed

with salicylic acid and borax. No disease was found in his yard, and the place was the very perfection of order and neatness.

From there a visit was made to a blacksmith neighbor of his, scarcely 200 yards away, where only two hives were found, he having sent a number some miles off to a son's place. One of these two was very badly diseased, and the other somewhat less so. Another call in the village was made on a party owning one hive, and it was found to be on its very last legs with the disease.

As one of the two parties was reported to have sold many cases of foul brood they both were requested to have a bonfire at night. Mr. McEvoy then went across the street and asked the minister if he would go over and see that these men did what they were ordered to do. The minister very willingly promised to do so. He was very much alarmed when told that it was so close to him; and, with feelings of the deepest regret he said: "Oh dear! oh dear! after all my trouble in melting combs, and doing all I could to keep it out of my apiary - just see the risks I have to run with my neighbors who won't do anything." The inspector replied, saying he would protect him, and make them clean out the disease.

Leaving the village he went to blacksmith No. 2, a couple of miles away, to whom blacksmith No. 1 had sold bees some time ago; and in the second hive looked at, the disease was found in a very malignant form and degree. This man has somewhere about 30 hives. The conversation which took place here was something like this:

"Say, mister would you come up here?" (spoken from the upper level door behind the smithy).

"What for?"

"I want to see your bees." Up he comes.

"I'm the government inspector, appointed to look after bees and see that there is no foul brood among them."

"Guess you won't find any here."

Guesswork in this business is rather suspicious and suggestive.

"Oh, no! I don't expect to. Well, we'll go and see, anyway. Do you take any journal?"

"No."

He was shown the foul brood, and warned and instructed about it. He was then advised to ask the assistance of our minister friend to help him get rid of the trouble.

Leaving here we passed down the road a mile to a farmhouse where was a small collection of hives of the ancient Mitchell and more modern Jones varieties. Some were inhabited, but

more without tenants. No foul brood appeared here; but in one hive large pieces had been out of two of the back combs, and the next frame showed a few dead larvæ. The owner being away in the fields at a distance plowing, time did not permit of interrogating him regarding the mutilated combs; but as a precautionary measure, word was left advising him to "take up" the hive this fall for its honey.

Further along a call was made where half a dozen Mitchell hives were sitting on a sloping lawn with a "list" to south that was calculated to call to mind the leaning tower of Pisa. The guide-wife took us for tramps, or agents, and, in the absence of the guide-man in the fields, assumed the defensive.

"I don't let anyone interfere with my bees. I run them myself," says she.

Mr. McEvoy indulged in a smile, passing the remark aside that this was the second time he had been refused liberty to see bees in the province. Our good lady friend became mollified when she was informed that no less a person had called upon her than a government official, and then came down and assisted in the somewhat difficult operation of dissecting one of the hives, apologizing all the time for her apparent discourtesy. No disease was found here.

The shades of evening were about to close over the beautiful landscape, and we headed off for home, having found three yards, out of six visited, badly infested with the vile disease.

Had time permitted following the other bees of blacksmith No. 1 to where they had been located, no doubt the trouble would have been found there also. We heard of a case where a party having foul brood extracted his honey and sold it in the grocery where another bought it and fed it to his bees, giving them the disease. One would naturally conclude, also, that foul-broody bees have been passing from one to another around here. I had the unfortunate experience myself, some years ago, of buying these, and know how exceedingly disappointing it may be, especially if no reparation is made, as in my case, and now I appreciate the Foul-Brood Act.

Our minister friend told us of having set up his son in the business, a year or so ago; and how, after, he had just started, he got foul brood from his neighbor which cost him \$400 before he had it eradicated.

R. W. McDONNELL, in Gleanings.
Galt, Ont., Can., Sep. 4.

If you want to carry your bees safely through the winter, see that they are not deficient in stores now.

FOR THE CANADIAN BEE JOURNAL.

Destroying Surplus Bees.

I AM disappointed in your comments on my letter re the Destruction of Bees. You made them without thoroughly understanding what I had written; and I shall in this reply try to be more explicit on those points which, it seems to me, you have not grasped, in case I have not been fully understood by other readers.

First, though, let me point out a typographical error in the third line on page 247 of my letter: that 200 combs should have been 2,000, as can be seen by the context.

You say that I have drawn the dark side of the picture very black. I fail to see it. Don't see that I draw a picture at all; and the nearest approach I detect to anything of the kind is something very bright. My letter was little more than a statement of facts and figures, and deductions made from them; and if these facts and figures, and deductions are correct, then the prospect of saving all our winter anxiety and of adding at the same time \$2.50 per colony to our profits is surely not "the dark side of the picture very black."

You say "from twenty to twenty-five pounds of good sealed stores will carry our colonies through in fine condition," and I admit that this is quite sufficient in many cases, (but not in all, by any means) and in some seasons to carry the bees from say Oct. 1st to fruit blossom the following spring. But to carry them from harvest to harvest requires very much more if we would have our bees strong in fall, and in the very best condition at the commencement of the succeeding harvest. Since, possibly, I did not make myself fully understood on this point in my letter I shall enlarge upon it now. The harvest seldom extends beyond the fifteenth of August, though in exceptionally favored localities it sometimes continues till the twenty-fifth or thirtieth; this year it closed in most sections soon after the fifteenth of July. But to give the bees all possible chance let us suppose that the close of the surplus storing season (this is what I mean by "harvest"), is September first. During September and early October brood raising is going on vigorously, or should be. In November we see that our bees have twenty-five pounds of good sealed stores, and we quarter them for the winter with little fear of starvation through shortage. But how much honey has been consumed from first of September till this time, especially during the period of brood rearing? You say yourself on page 248: "But we should have to destroy our bees nearly as soon as the honey harvest is over or

we would have to leave honey in the hives to support them between the various honey flows in the fall. In most localities there are little flows of honey for a few days from time to time in the fall from astors, mint, boneset, golden rod, &c., which keeps them brooding and supports them until it is time to set them in winter quarters;" and in this you admit that a quantity of honey is consumed (whether it be left for or gathered by the bees) between harvest and winter quartering. About how much is consumed is what I wish to point out. Surely twenty-five pounds is not too large an amount to allow for the month of vigorous brood-rearing, and ten pounds for the balance of the time—35 lbs. in all. Of this thirty-five pounds about what proportion will be used for brooding purposes alone? Not less than three-fifths; say twenty pounds. Now please note: If we intend to destroy our bees before winter we will not allow brood rearing after harvest, and will, therefore, save this twenty pounds. Add this twenty pounds to the 20 or 25 you winter on and you have the forty (45) pounds required to carry your bees from harvest to harvest; so that you cannot as you say "get over the difficulty with much less than forty pounds." But in my last letter I put this twenty pounds saved (by disallowing brooding) at only ten, so as to be well within the mark, on account of the skepticism of some of my fellow bee-men; and I consider even the twenty to be still within the mark, for I can show a saving of nearly twice that by a careful manipulation with fall destruction in view.

Now, all my figures are based upon a good season in a good locality, followed by a desirable winter and early spring, with a good yield from willow and fruit. But how very seldom of late years have we such a conjunction of good things. Suppose we have no fall flow, and find, as many of us have done time and again, when we weigh our colonies in November, that although they have more than ample (as we supposed) stores in September, they must yet be fed ten or fifteen pounds per colony. Suppose too, that such a fall be succeeded by a winter like the last, when bees consumed more stores than in any previous one, followed by a spring like that through which we have just passed, when in some localities bees had to be fed till clover yielded. Do you imagine that forty pounds would suffice to carry a strong colony from harvest to harvest? Of course you don't if you think carefully; this would not be nearly enough. I am sure there were very few good colonies in Ontario which did not consume at least sixty pounds between September 1st, 1889, and June 15th, 1890, if they were ready in best

condition for the harvest when it opened ; and when there was no yield from spring flowers and fruit bloom, fifty pounds of this was at the expense of their owner. When I say it was at his expense I mean that he would have saved it had he destroyed his bees in the fall.

You say you scarcely think I intended to say "carrying out of the cellar two or three times during the winter" (your comments, page 247). But I did intend it ; though I must freely admit that with a proper bee-house or cellar it would not be necessary. But every bee-man has not such a repository ; and while you and some others are often spared the labor of "carrying out," there are many bee-men who must perform it, and it is to them my remarks applied. You must surely know as well as I do myself that this "carrying out" is practised all over the country two winters out of three by three-quarters of our bee-men who winter inside, and one in five by the others ; with, possibly, two or three exceptions.

You say "we all know now that when bees are wintering well they should be left alone until it is time to set them out in the spring." Why, of course, we all know it (now, as you say, if we didn't always know it) ; but it is "when bees are wintering well" that they should be left alone ; and here is just the point—when they are wintering well. They are not wintering well when they are restless, when they are spotting their hives, when they are consuming too much stores, and when they are doing anything else that in our opinion they should not do. In other words they are wintering well only when they require absolutely no attention ; and how often this is, taking the last five years for the average, I have already hinted. How often, Mr. Editor, do bees winter well in Canada ? That is, to the entire satisfaction to Canadian bee-keepers as a unit, or even to the entire satisfaction of any individual owner when he charges up labor, cost and loss.

You make my item of insurance at fifty cents appear as though it referred to fire insurance only, whereas the fire part of it was of very secondary consideration. Either you did not carefully read my letter before commenting or else I failed to make my meaning plain. Perhaps I should have used the word "risk" instead of "insurance." Please read that paragraph on insurance again and you will see that I put fire as only one of the lesser items which combine to make up the accident part of what I call the "risk of accident and disease. You speak of what it costs to insure your bee-house ; but your bee-house is not your bees. Possibly you

are not aware that in any case bees do not form a legitimate risk for fire insurance companies. I do not say that no company will insure bees, but perhaps some may ; but each of the three leading companies which refused me told me that the fire insurance of bees is not legitimate. But leave out the fire entirely and I am sure 50c. is not too high to cover the following risks: death, queenlessness, shortage of spring stores, dwindling, necessity for stimulative feeding, dysentary, foul brood, and any condition inferior to full strength on tea combs, eight of these full of brood by May 15th. I am sure you would not take this risk for me at 50c. per colony ; and if you would not do it for me, it is worth more to myself. Worth more to myself for the same reason that you insure against fire with some other company because you cannot afford to carry the risk yourself: it is worth more to you to carry your own risk than others will do it for, and so you prefer to pay them. So in this case.

I quite agree with you that we ought to be very careful from whom, in the States or Canada either, we buy bees ; but because there is foul brood on this continent is no reason that we should purchase it. I don't think the risk of buying diseased colonies, if bees are bought as I would buy them, is any greater than contagion from our neighbors' apiaries at home. It will pay the purchaser of one hundred colonies to select them for himself ; and unless he is competent to pick out healthy colonies he had better not buy at all. You purchased sixty colonies and found them diseased ; I purchased eighty-five one time and forty another and found them better than represented, and I am not afraid to buy again even without first seeing my purchase.

In conclusion of this somewhat, though necessarily lengthy reply, let me say that I have endeavored to base my deductions upon circumstances as they are. Arguments based upon circumstances as we wish them to be would lead me in quite another direction. Each of us has his ideal wintering, but who has attained it ? We expend a large amount of stores and labor one winter and we think we see how we can do better next time ; in fact we are so sure we can that we persuade ourselves that we will ; and we tell others that we can. Such is human nature. But how do we succeed ? Do we ever realize our anticipations ? As a rule no, and yet we hope on, and still expect better results from a newer and prospectively better method ; and so winter after winter passes by and still we hope, believe, promise and assert ; but the facts remain the same.

Some one chances to winter a colony on five pounds of stores, (candy in the case I have in my mind), and he believes he has solved the problem and proclaims the solution to the world. The next spring, however, we do not hear his voice, and, on enquiry, we find that after consuming on the new five pounds of candy system, fifteen pounds per colony, his bees have starved. How many similar cases I could give is well known to all who have followed the leading bee journals for the last ten years; so that I need not mention more here. And the facts remain the same: the problem is not solved.

For the last six or seven years in my own recollection bee-keepers (the big guns, I mean) have declared that all the terrors of winter are gone; and that fifteen pounds, twenty pounds, twenty-five pounds of honey with certain packing, and certain temperature, and certain other things will carry the bees through in what you call "the best possible condition." (By the way, I'd like to know just what this condition is). Men stand up at our fairs and conventions and aver that they can bring every colony through in good shape; but we hear nothing more of these men's voices until they say the same thing next season. When we enquire how they did last winter they say:—"Well, er,—you see, er—I was experimenting and I, er—made a mistake and forgot—and er—my thermometer was wrong—and er—and—or they would have come through on just the amount of stores I intend for them and been first rate; but I can do it every time." But the facts remain the same, sir, the facts remain the same; the problem is not solved.

Toronto, Oct. 20, 1890.

G. B. JONES.

P.S., Oct. 22.—Since writing the above I note what you say under "Our Own Apiary" in C. B. J. for the 15th. That 17 lbs. is a large part of the 20 or 25 you can winter on; but the instance you mention is only a sample of a great many all over Canada this fall. I'll put up a silk hat to a felt one that this colony went winter from harvest to harvest on 40 lbs., and a felt one to a silk one that it will use over 50 lbs. to be in full strength by May 15th, 1891.

G. B. J.

Perhaps if the bees did not get anything except what was put in the hive during the harvest they *might* consume the amount you mention, but they always get more or less honey in the fall and early in the spring. We will suppose, for argument's sake, that every bee-keeper throughout the country rids himself of his entire stock of bees at the end of the honey harvest; the next year he buys a fresh lot of bees, and immedi-

ately the honey harvest is over again disposes of *them*. We cannot see where all the profit is coming in, the combs which are saved over from the first year will be all right for the second stories the second year. The third year you will have, say, double the number of combs, or sufficient for third stories, but after you have gone that far you will have as many combs as you require, unless you go on doubling the number of bees you purchase each year. Of course if you buy bees by the pound after the first or second year you can get over this difficulty, which relates more particularly to extracted honey. If you take comb honey you will have little or no use for the great surplus of comb which you will soon accumulate. We hear someone say, let them swarm and thus use the combs, but the average bee-keeper knows the greater number of swarms the less honey in proportion. Of the many first-class bee-keepers whom we know we have yet to find one who practices destroying bees in the fall and purchasing fresh supplies in the spring. If it is going to pay better why not let us all do it. But then, see the enormous demand which would be created; and as our neighbors down South are as cute as the average of mankind, up would go the price to a figure which would at once make the whole matter totally impracticable. Many bee-keepers have tried the experiment of moving bees to the South for the fall, and bringing them back in the spring to more northerly latitudes, but there are very few who have made much of a success of it. We should really like to hear from Mr. Pringle, Mr. Emigh, Mr. McKnight and some others of our leading bee-keepers on this matter. One point in connection with this subject which your arguments go to prove, is that where there is very little fall pasturage bee keepers should invariably confine the queen to a very small brood space during the honey harvest, so that a large number of useless bees may not be raised to become consumers at the close of the harvest; or if the queen is allowed full play, then remove the combs as we have been doing in the experiment spoken of elsewhere, when the old bees will probably die off leaving only young bees to go into winter quarters.

FOR THE CANADIAN BEE JOURNAL.

Moths in the Hive.

I HAVE a colony of bees about three or four years old in one of Thomas' double boarded hives. The frames are now fastened firmly by the bees, not having been moved in all that time. I think moths have got in, and I wish to move them into another hive. What do you think is the best disposition I could make of them, being all black. Could the bees and honey be transferred to one of your nuclei, or can the combs and all be put into another hive at this season of the year with any satisfactory results? I am only a novice, although I have worked with bees, more or less, for 20 years or more.

Yours truly,
S. McDONALD.

Muirkirk, October 10, 1890.

Your colony may have been in the hive a great number of years, but you have no bees one year old except queens; no worker bee ever lives to see his anniversary. I do not think there is any danger of moths doing you much harm as long as there is a good healthy queen in the hive. Sometimes when bees do not do very well after being a long time in the hive, their owner is apt to imagine it is on account of moths, and accordingly there has been much said in reference to their depredations. It would not be wise to move them this fall. Transferring late in the fall is almost certain destruction. If you wish to transfer them to a more convenient hive, you might do so next spring, during fruit bloom or at the commencement of the white clover bloom. Cutting the combs loose from your frames and putting them in others would be an easy matter, but the cool weather being at hand would not allow the bees to work the wax, therefore they could not fasten them properly. Besides, it would thoroughly discourage them, and before they got properly clustered again and settled down, winter would be on and they would die. See that they have plenty of stores, and if they come out in good condition next spring we shall be pleased to give you full instructions in reference to transferring.

FOR THE CANADIAN BEE JOURNAL.

Removing the Combs Just After the Honey Harvest.

IN the fall of 1889 I had several colonies that were not strong enough to winter. In looking them over I took all but three combs

from one colony, shaking bees in front of hive thinking they would cluster on the three remaining combs which contained some honey, but on entering the hive they clustered on the side left vacant by the removal of the combs. The colony was about the strength of a small third swarm. I fully expected that they would move over to the comb, but they remained clustered for 25 days, or until I sold them to a neighbor to strengthen a colony of his. I could not see that they left the cluster at all or touched the honey in the hive. This fall I left a colony of about the same size on three combs without honey. For the first week they could get honey enough from the asters to sustain life, that is without storing any amount. Unusually early frost cut off this scant supply, and they have been "holding the fort," I should think, at least fourteen days "without any visible means of support." I cannot believe that they steal their living from other colonies, as it is very seldom that a bee can be seen to leave the hive at all, even while other colonies are sending out hundreds of them. I think this now is a very interesting question. The idea is new, at least to me, and I do not remember of ever seeing it in print.

J. F. DUNN.

Ridgetown, October 23, 1890.

P. S.—I have just been out in a pouring rain with a lantern to examine the colony referred to above, and find them quietly clustered between combs. In jarring the hive they came up in quite a saucy manner. There are no dead bees on the bottom board.

The circumstances which you relate are somewhat similar to those related by us on page 302, and it really seems to us that this is a subject that should be carried further. We make further reference to the colony, which we still have in the hive without combs, in this issue, as you will see by reference to "Our Own Apiary." Since we examined them last we find they have built a little in the combs, and this leads us to enquire whether it would not be a good idea to place empty frames in the hive into which the bees are shaken, or even frames with strips or starters of foundation as comb guides, then the work which they do will not be lost, and the saving of stores which will be effected will amount to about the same thing. The comb thus started can be used the next season.

CAPPINGS.

CUT FROM A VARIETY OF COMBS.

Dry Sugar Feeding.

FROM the advance sheets of the Rhode Island Experimental Station bulletin, kindly sent to us by Mr. Samuel Cushman, superintendent in charge of the apiary, we glean the following with reference to spring feeding, which will apply to our apiaries:—

"That the colonies might be built up quickly and made very populous by the time of the honey flow from apple blossoms, we desired that each should receive daily a small quantity of food to stimulate brood raising. As our visits to the station at that time were made not oftener than once in ten days, the usual plan of regularly giving in a feeder a small quantity of this syrup could not be followed, therefore to accomplish the same or similar results we adopted the plan of feeding soft undissolved sugar in the hive. As with daily syrup feeding, though in a less degree, this could not be done, without danger of greater loss than gain, until the weather allowed the bees almost daily flights. Up to that time those colonies having sufficient stores were not fed or their stores uncapped, empty combs only were given as required; but early in May good moist sugar was supplied in frame feeders hung next to the brood combs and sufficient given to last until another visit. This was renewed as needed, and the result was all that could be desired. As apple bloom apparently failed to secrete nectar, the feeders were allowed to remain until sometime previous to the honey flow from clover, when they were removed from all colonies that were to be used for honey production, and at the commencement of the harvest all combs of stores that might contain this feed were also removed and given to nucleus colonies. This method of

DRY SUGAR FEEDING,

as it was called, was brought before the public by Mr. Samuel Simmins, of England, and is described in various English books and publications on bee culture, but we believe is little understood or followed in this country. After several years trial of this plan, on a somewhat extended scale, we do not hesitate to recommend it. It is well suited to the management of our apiaries, where but occasional visits are made, and in all cases, though possibly in a dry country not so effective as syrup feeding, saves the trouble of making syrup and the time required in its daily distribution, while the danger of the disastrous results of occasionally omitting the daily ration is avoided. Instead of dry sugar, moist sugar like good grades of molasses and C sugar are best, but the former should first be well drained. This, placed in a feeder where the heat and moisture is confined, is slowly licked up or liquified by the bees. The rapidity with which this is done depends upon the heat and moisture in the hive. By placing an enameled cloth enameled side down, over

the frames in place of the porous covering, the loss of moisture, so desirable in freezing weather, may be lessened, while by removing the warm cushions or quilts from part of its surface, condensation of moisture takes place upon the enameled face beneath and furnishes water to promote more rapid work. The sugar may be placed in an ordinary syrup feeder or wrapped in cheese cloth and laid over the frames, but the arrangement we prefer and use here is similar to Mr. Simmins' pattern, and consists of a hollow dummy, having the same length and depth as the brood frame, and a similar top bar and a movable side that does not reach the top bar by $\frac{1}{2}$ inch. This is filled by removing the side, while the space at the top allows the bees access and but little escape of heat. If the inside space is more than an inch wide comb will be built therein. This mode of feeding is not only suitable for spring stimulation but is invaluable in a poor season to prevent starvation, for queen rearing, for building up nuclei and working for increase or drawing out foundation, as well as for promoting brood rearing after removing what is in some localities the only honey crop of the season. By using soft candy of best granulated sugar it may be made to piece out scant stores in the fall.

When in the production of comb honey, dummies are needed to fill space in brood chamber of new swarms, they may be made from these unused feeders by nailing on the movable sides so as to exclude the bees."

FRAMES WITH THICK TOP BARS.

Our friends, the Roots, are making considerable change in their dove-tailed hive for the coming year, changes which we are for the most part glad to see, because they fall in with our own ideas of what is right and practical. Ernest writes as follows:

"Now that I have come home, and the enthusiasm has somewhat subsided, so that I can take a somewhat cool view of the situation, I am thoroughly satisfied that we should do beginners a great harm by offering them slatted honey-boards next year, when there is something so obviously better and cheaper. Your "committee" (as one of our subscribers has already begun to call it), comprising J. T. Calvert, business manager; J. S. Warner, our superintendent; A. I. Root, the "big boss," as he is familiarly called; Dr. C. C. Miller and your humble servant, after talking the matter over in all its bearings, have decided to offer the Dove-tailed hive the coming year without the honey-board; and, in lieu of it, thick top-frames in the brood-nest. The bee-keepers of the East do not exactly use this style of frame, but they use a top-bar heavier and wider than those of the West ordinarily do. Their bars are, as a general thing, from $\frac{1}{2}$ inch to $\frac{3}{8}$ thick, to about an inch or a little over wide. To be on the safe side, our top-bars of the hanging frame in the new Dove-tailed hive are to be $1\frac{1}{4}$ wide and $\frac{3}{8}$ thick. With the exception of the thick-top-bar frame and the absence of the honey-board, its general appearance is the same as before. But we have

changed the hive a little; or, rather, we have made its inside width $12\frac{1}{2}$ inches instead of being $11\frac{1}{2}$ as before. You will remember, Dr. Miller spoke of the advantage of having an eight-frame hive wide enough to take in a follower on $1\frac{1}{2}$ spacing. While we objected to it at the time, your humble servant, while on his Eastern trip, saw that the advantages of the movable follower were so decided that he at once recommended to the committee the widening of the hive; "for," said he, "if fixed distances ever get to be the rage (and it looks as if they would be in time), either a follower or an open-side hive will be indispensable. Even for hanging frames it will be a very great advantage." Mr. Calvert suggested that widening the hive would also necessitate widening the super. And this will permit us to use wooden separators with $1\frac{1}{2}$ sections, or 7-to-the-foot sections without separators. Your committee then decided, with Dr. Miller's indorsement, to widen the hive. Some of you will argue that this will make confusion; that old hives will not be interchangeable with new ones. Oh! yes, they will. With beveled edges it would not do at all; but with square edges the new bodies will project only $\frac{1}{2}$ inch on each side over the old bodies, the length being the same. With this very slight change you that already have the old hives would decide that the very great advantage to new purchasers is such as to warrant us in making the change."

BEES TROUBLESOME AT WATER TROUGHS.

Perhaps some of our friends are troubled with the bees around their watering troughs, or maybe their bees are a nuisance to some neighbor in just this way. If so, Dr. Miller's experience may help them out:

"At the Wilson apiary there is a watering trough at the well, and for the last two years the bees have taken possession of it to such an extent that it had to be abandoned as a place for watering horses, and another place used some rods distant. No doubt you will say, "Why, what harm will the bees do?" Well, I'm not sure that they ever did any harm; but the horses wouldn't drink there, and that was harm enough. I have tried a number of times watering my own horse there. If very thirsty I could get him up to the trough, and perhaps he would plunge his mouth into the water in a kind of desperate manner, but, generally speaking, he would just stand and snort at the bees without offering to drink. I suspect, however, that bees floating on the water got on the horse's lips and stung or at least tickled them. This summer another trough was placed between this trough and the apiary, provided with comfortable floats and all that, and it secured some patronage, but the old trough held the most of its custom. If the old trough had been left dry for a few days, or had been entirely covered up, the case might have been different; but it was pumped full every night to cool the cans of milk. At the home apiary the bees are inclined to annoy every year by getting into any water left standing at the well, and even going into the pump itself, making it difficult to get a pail of water without drowning bees in it. A six-gallon crock

of salt water standing a rod away, filled with sticks of rotten stovewood, has seemed enough attraction to keep them away. But it is important that anything of this kind be started early in the season. Let them once get into the habit of going to a certain place, and they don't like to change. This summer, before I noticed what was going on, they had commenced visiting the pump, alighting on a half-barrel that stood there with water for the stock. I moved the half-barrel away a little, and was careful to allow no water to stand in anything else. After a day or two I set the half-barrel about a rod from the pump, I put a piece of board in the middle of it, and then covered the whole with a gunny-sack. The gunny-sack sank in the water and kept moist for some distance out of it, and this seemed to just suit the bees. I threw in a handful of salt, so it would not breed mosquitoes, and because I thought the bees liked it. Since that the bees have not troubled at all, although water has stood in pails most of the time at the pump. I recommend for trial a tub or half-barrel covered with some kind of coarse cloth."

FLOUR AS A PACIFIER IN UNITING COLONIES.

A correspondent of the *British Bee Journal* deprecates the waste of time usually taken up in uniting, when, he says, the whole thing can be done in five minutes, without danger of fighting. He writes:

"Say you wish to unite a queenless stock to one with a queen—the most difficult of all unions. Put your queenless bees into an empty box or straw skep; now take the cover off those with the queen, and after giving them a puff of smoke to quiet them for a minute, take a handful of flour (get some from the 'missis'—most bee-keepers' wives do a bit of baking) and dust the flour down between the frames. (Flour, by the way, is an excellent quietor.) Now draw out three or four frames and lay them down so as to be handy. Take your queenless stock, turn it up, and dust a handful of flour among them also until they are quite white, pour them among the others, replace your frames and cover up as before, taking away all that belonged to the queenless stock. When you return in an hour or so you will find the bees united, blowing at the door, and as happy as possible. I have never known this method to fail."

STUNG BY A QUEEN.

An Englishman who is in the habit of caging the queen in his mouth when "driving" the bees, says:—"We are told by many writers that a queen has never been known to sting any person, but my case stands thus:—When driving a skep the other day, I placed the queen in my mouth, as is my usual habit, and had scarcely done so when I was astonished to receive a very sharp sting on the lip. I need hardly say the queen was quickly returned into the hive. I have watched her with no little curiosity to see if she was harmed by stinging me, but to-day she is alive and laying freely."

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 are 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.

What is the "Average" Yield of Honey.

QUERY No. 283.—When speaking of the honey yield, I hear people say "above the average," "below the average," etc. Has it ever been decided what the "average" is? What would you call an average yield (1) of extracted honey, (2) of comb honey per colony, spring count?

A. B. MASON, AUBURDALE, O.—With me the average yield is about 75 lbs. of extracted honey,

G. M. DOOLITTLE, BORODINO, N. Y.—An average yield in this locality is called 50 lbs. of comb honey, or 75 lbs of extracted.

G. A. DEADMAN, BRUSSELS, ONT.—An average yield here, I would say, is 35 lbs. extracted and 25 lbs. of comb per colony, spring count, and have sufficient stores left for wintering.

J. K. DARLING, ALMONTE, ONT.—The term is very indefinite, as it varies in localities, in seasons and in colonies. The querist does not state whether it is a term of years, or a single season on a given arrear that he has in view.

R. MCKNIGHT, OWEN SOUND, ONT.—"Average" is a term of limited application here. An average yield in one locality would be an extraordinary crop in another. If 50 lbs. cannot be procured, the business had better be given up.

PROF. A. J. COOK, LANSING, MICH.—Each person has his idea, and refers to his own average. I should say 50 lbs. comb, and 80 lbs. extracted would be a fair average; though too much for the last three years.

H. D. CUTTING, CLINTON, MICH.—The average in some localities in Michigan is 80 lbs. comb honey per colony, and in some localities 20 lbs. in a good season. In this locality the average per colony will not be 20 pound this season.

JAMES HEDDON, DOWAGIAC, MICH.—Now I guess you have got us. The average for one locality is not for another, and what was the the average after I had kept bees ten years is away above the average now that I have kept them twenty years. Give it up.

J. F. DUNN, RIDGEWAY, ONT.—I don't know. In my locality when I get 100 lbs. of comb honey per colony, spring count, I call it a "splendid yield," when I get 75 lbs., I call that "a good

yield," and when I get 40 lbs., or less, I call it "a poor yield." I never talk about an "average" yield.

DR. MILLER, MARENGO, ILL.—Here, you, who makes you ask such saucy questions? I don't believe one in ten has any definite idea what he means by "average." Does he mean *my* average, taking the last ten years, or the average of the whole country? In some places it may be 75 lbs., in others 20 lbs., while the average for the whole country may be 40 lbs. My average of comb honey is less than 40 lbs.

EUGENE SECOR, FOREST CITY, IOWA.—I should say an "average" is a variable quantity depending on locality. An average for California may be different from one in Canada. I don't know what the average for the whole country is. Again, averages for individuals vary greatly, and I suppose every man reporting has in mind his average rather than that of his county or state.

J. E. POND NORTH ATTLEBORO', MASS.—The average as used in the connection asked about, means simply the average of a certain locality, viz.: that of the individual answering the question. There is no general average, so far as is now known, but each bee-keeper can compute an average from the yield of a term of years, if statistics are kept. The average in my own locality, for 15 or 16 years past, has been 50 lbs. to the colony, spring count.

A. PRINGLE, SELBY, ONT.—In this connection the word "average" is, I presume, not unfrequently made to do duty for another word, viz., *fair*. A fair yield is what is meant; for what would be an average yield in one locality would not be an average yield in some other locality. An average in this locality would be I think about 75 lbs. of extracted honey per colony, spring count, or 40 lbs. of comb honey. This also is what might be called a *fair* yield almost any place. The highest yield I ever had was 140 per colony, spring count—the lowest about 15 to 20 lbs per colony. Of course odd colonies have run to much higher figures, but not the fabulous ones I have occasionally seen arrayed in the journals.

G. W. DEMAREE, CHRISTIANBURG, KY.—When I speak of the "average honey yield," I refer to my own locality. Most bee men who have been in the business for a number of years are as competent to know when they strike an average season, as the farmer is competent to know when his corn crop or wheat crop is an average one. The fact is, no specific number of pounds of honey represent an average yield. I judge this season by the number of seasons I have experienced in the past, and say this is above or below the "average." There is nothing misty about computing things in this way. So much depends on the condition of bees and other facts that enter into the final make up of things, that we may never know what is an "average yield of honey" in pounds. But we may know that this season is better than last so we may strike an average without reckoning by pounds.

BY THE EDITOR.—That depends. An average here would not be an average 100 miles from here. The only way to get an average of your own locality would be to ascertain the yield for a series of years and figure from them. What you want to get, probably, is an answer to the question as put by Mr. Pringle, viz.: what would you call a *fair* yield? (*i. e.*) what should the average yield be year after year, to make the keeping of bees a paying investment. The most of those who have given figures have stated 50 lbs. comb and 75 lbs extracted honey as an average, and doubtless they are satisfied with this yield or they would not continue in the business. Would it not be a desirable thing to figure out what would be *fair*, and then estimate the result of the season's work, as either above or below the point.

Upper Ventilation.

QUERY No. 24.—Do you practise a system of upper ventilation for winter? If so, how do you obtain it?

DR. MILLER, MARENGO, ILL.—No.

J. F. DUNN, RIDGEWAY, ONT.—No.

G. M. DOOLITTLE, BORODINO, N. Y.—Through quilt and sawdust cushion.

A. B. MASON, AUBURNDALE, O.—I winter in the cellar, and all the ventilation is through the quilt used during the summer.

G. W. DEMAREE, CHRISTIANBURG, KY.—No, unless you call the usual practice of covering the frames with be quilts "upper ventilation."

J. K. DARLING, ALMONTE, ONT.—I remove the propolised sheet and cover the hive with a cotton bag filled with dry, fine sawdust, no other covering, I winter in the cellar.

JAMES HEDDON, DOWAGIAC, MICH.—No, we used to; also experimented a great deal both ways, but found no value in upward ventilation or any other special method of ventilation.

PROF. A. J. COOK, LANSING, MICH.—No. I used to leave off covers and put cloth and chaff cushion above. I now leave cover on sealed tight, and it seems as well.

EUGENE SECOR, FOREST CITY, IOWA.—I have tried it, but do not think it essential. With loose bottom boards, and in a warm cellar the simplest way is to raise the hive—say an inch.

H. D. CUTTING, CLINTON, MICH.—I don't want any upward ventilation. Make the hives as close as possible on top, and don't lose but very

few bees in winter. I want plenty of bottom ventilation.

R. MCKNIGHT, OWEN SOUND, ONT.—(1) By removing the honey board and leaving the quilt on—in the house. (1) By removing the honey board, leaving on the quilt and then putting on an empty super filled with any good transmitting material—out of doors.

G. A. DEADMAN, BRUSSELLS, ONT.—I only do so when colonies incline to be restless, or cluster around the entrance, and I do so then by pushing back one corner of the cushion, or opening the cover to a feeder which is in the side of the hive near the top.

A. PRINGLE, SELBY, ONT.—My opinion is that no upper ventilation is required save what is secured by the use of porous or absorbent quilts on top of frames. When other conditions are favorable even that much ventilation is unnecessary; for strong colonies with ample lower ventilation in a good repository will effectually expel the moisture below.

J. E. POND, NORTH ATTLEBORO', MASS.—The question of ventilation as applied to bee hives is very generally misunderstood. In my own case wintering on summer stands, I give full opening at entrance; cover frames at top with some porous material that will allow excess of moisture to pass off, and yet retain all heat in the hive. This plan works well with myself, and I believe it to be in accordance both with nature and science.

BY THE EDITOR.—Leave the entrance wide open; use ordinary cotton quilts over frames; remove the lid. This is for indoor wintering. For out-door, put on sufficient protection to prevent a too great escape of heat. Let the entrance do the ventilating.

TO EVERY LOVER OF VINES AND FLOWERS.

KIND FRIENDS:—I have a very large stock of beautiful CINNAMON VINES—all nicely rooted and growing [ready to transplant] and will mail you five vines packed in wet moss securely boxed, for only 30 cents, cash or stamps. When first introduced from Japan these vines sold for \$10.00 each; they make charming basket or window plants.

J. P. RUNG, Tyrone, Pa., says:—"The vine has grown about 18 feet, and was very full of blossom, with a delicious odor, scenting the air for a long distance. The foliage is very much admired."

S. WILSON, Mechanicsville, Pa., Nov. 27th, 1889, writes:—"We think the Cinnamon Vine is one of the most desirable house plants for winter; it blooms as freely in the house as out-door, and they can be trained over and around a window, and will fill a room with delightful fragrance in the cold and dreary winter months."

Get a friend to send with you and I will add four varieties of choice Flower Seeds to each order. Dont delay. Address

A. T. COOK, SEEDSMAN,
HYDE PARK, DUCHESS Co., N. Y.

SELECTIONS.

Sub-Earth Ventilation for Bee-Houses.

J. D. MORRISON.—I am building an outside bee-house, will you kindly advise me if it requires an underground ventilator, also giving me full particulars with respect to ventilation.
Dunvegan, Sept. 27, 1890

If you are building on level ground, we do not think that you can secure underground ventilation at a small enough expense to make it worth your while. You can ventilate sufficiently from the top, but if you are building on a side hill a pipe running, say 200 feet out, at a depth of three or four feet underground, would be of good service. There are a great many who have been in the habit of using underground ventilators, who have closed them up of late years and are not using them, and they claim that they winter just as successfully as they did in former times; in this case the building should be set on a very dry spot, and nothing but the driest of packing should be used between the walls. If you have two upper ventilators you can secure downward ventilation, to a certain extent, by having one pipe shorter than the other at the top and extending down to the floor at the bottom. They should be provided with slides so that they can be opened or closed at will, without going into the bee-house. You can also arrange to take the temperature without going into the house, by simply dropping a thermometer down through the ceiling, arranging an aperture large enough to allow of its passage through, which should also be kept closed with a slide. We publish a little pamphlet entitled, "Bee-houses, and how to build them," which we can supply you at a cost of 15 cents, in which you will find our own plans in detail, and the plans of a number of others.

MELCHER'S HONEY EXTRACTOR.

EDWARD J. KNEBEL.—In THE CANADIAN BEE JOURNAL of May 15, Dr. Lemieux asks for some information regarding Melcher's honey extractor. A short time ago I was buying up an apiary, and with it the supplies and utensils connected therewith. I found among these one of the above extractors, and I must say I do not like it. There is nothing much but the basket; you must furnish yourself with a can or tank in which to work it. After that it is very slow work to extract, because there is no cogwheel gearing the thing is worked by a string.

It is certainly a simple machine, but taking all in all, I think any of the standard extractors are the cheapest in the end.
Spring Branch, Comal Co., Texas.

Your information only bears out the advice we gave Dr. L. some time since.

A WISCONSIN REPORT—WINTERING BEES AND POTATOES IN THE SAME CELLAR.

HERMAN H. KRUG.—Bees have done poorly here so far as honey is concerned. I bought one colony this spring, and increased to four, but I have hardly had any honey stored in sections till now. I should like to know if bees can be wintered in a cellar where potatoes and vegetables are kept?

Surely you couldn't have expected very much honey with that increase. If you did you wanted more than the ordinary bee-keeper would ask for. As to wintering bees in the cellar with vegetables, etc., providing nothing is allowed to decay, and the cellar is kept dark, and at the right temperature, and the bees are not disturbed, there is no objection to doing so.

WANTS AN ARTICLE ON WINTERING.

F. GILL.—Have been a subscriber for BEE JOURNAL since June last, and find it very interesting; in fact I could not do without it. I have read many good articles from bee men, but still am watching every issue for a good article on wintering.

Charlottetown, P. E. I., Oct. 8, '90

Lots of articles have appeared in the back numbers of the BEE JOURNAL on Wintering, and from these we have prepared a little pamphlet on the subject, which can be obtained for 15c. All the salient points may be found within its pages. It is not the object of the BEE JOURNAL to reprint each year full instructions regarding all the work in the apiary, but only to give the experiences gained, and the lessons learned from each year's work. The groundwork of the process may be found in any of the many books devoted to the subject.

WELL PLEASED WITH THE C. B. J.

E. & G. W. BAKER.—Enclosed find the name of a new subscriber. We are well pleased with THE CANADIAN BEE JOURNAL, and consider the C. B. J. and the C. P. J. published separately a great advantage. Our honey crop is light this year. From 128 colonies, spring count, we have secured 3,600 lbs., with an increase of only 14 colonies.

Hartford, Ont., Oct. 6, '90.

WINTERING IN CLAMPS.

E. J. BERRY.—Will you kindly help me to decide which is the best way to winter my bees? I have a very poor cellar, and I think I shall try to winter them in clamps out of doors. I will give you the plan I proposed carrying out. About the 15th November I shall put say 15 colonies in a row four to six inches apart and raised one foot from the ground, pack underneath the hive with chaff or planer shavings. I will then put boards in front and back of the hives, leaving a space of six inches all around for packing, and I will put the same amount on top, making a slanting roof over the entire clamp to shed the water. Do you think this packing will be sufficient for this province, it being much colder than in Ontario? I find upon weighing my colonies on 15th October that each had 15 to 20 pounds of sugar syrup made from sugar almost white, next grade to granulated. Do you think that the bees will winter safely on this food? Would colonies have sufficient feed, *i. e.*, 15 to 20 pounds, to carry them through until such a date next spring as it would be safe to unpack them to see how they had wintered? About what date next spring would you estimate the above quantity of feed would last to with safety? Both chaff and planer shavings being procurable, which would you advise me to use? All my colonies are in splendid condition, and I would very much like to winter them successfully.

Brome Corners, Que., Oct. 18, 1890.

I think you had better put six inches of packing in front and nine at least behind and on the sides. Would prefer at least a foot of chaff on top unless it was very fine chaff, clover or timothy, and then held down firmly so that the heat cannot escape easily. Six inches would be sufficient on top but you can easily set the escape board in front of the entrance of your hive on a slant of say about 45 degrees, so that the packing would not be very deep just at the entrance, but get deeper until it got to be say nine inches at the top of the hive. We would prefer if chaff was easily got or dry sawdust, to use a foot on the inside and eight or nine inches in the bottom, but if you bank up with snow after the first fall, that will assist very much in keeping up an even temperature. If you have a few warm days yet, would advise you to give each one a little more food, as 15 pounds is very light for outdoor wintering. Sugar syrup no doubt is equal if not better than honey, especially fall honey, but good clover or basswood honey is perhaps as good as sugar syrup. You had better examine them the first warm days in spring, say March or April, to see that they are not starving. Should you find any of them lacking stores you

could take a comb and pour good warm, thick sugar syrup in it, and set it down next to the cluster where they could get it. This would keep them even though they were out of food until the warm weather set in. We would also advise you to keep them packed until the fruit bloom, as this year where bees were not thoroughly packed or kept warm in the spring they suffered from the unfavorable weather. I scarcely know which is best, chaff or planer shavings. I think I would prefer the chaff. You might try one end of your clump with shavings and the other end with chaff, but be sure the shavings are packed very tightly, otherwise it would require much thicker packing to keep out the cold. The finer the chaff the better. If you can get clover chaff, which is quite plentiful in some localities, it is much better than wheat or oat chaff. Let me repeat that banking up the bees with snow is a good investment. If you pile the snow on top of your clamp three feet deep all the better. I have never known bees to die in winter quarters if they were in good condition in the fall, under the snow, but I have known many apiaries where part of the colonies were covered with snow and the rest not, those covered with snow, wintered splendid, while those not died or came through weak, and perhaps dwindled badly in the spring. You need not be afraid of smothering them, even though you should get the snow six feet deep all over them, and they will consume less stores under a snow-bank than when in the open air.

MOVING BEES TO NEW LOCATION.

SUBSCRIBER.—I should like to enquire which will be the best time to move bees, this fall or next spring? I intend moving this winter, all except the bees, which I have thought best to leave where they are. I shall only be moving a distance of 2½ miles.

Derwent, Oct. 20, 1890.

I would advise you to move them next spring, as the combs will have much less honey in them, be much lighter, less liable to break down, and disturbing bees late in the fall seems to break their clusters, causes them to gorge themselves with honey, and they don't seem to get clustered as compactly and winter quite as well as they would if left undisturbed late in the season. Thanks for your report.

OUR OWN APIARY.

Disinfecting Hives that have had Foul brood Colonies therein.

ON page 275 of the JOURNAL for October 1st, friend Pringle gives Mr. McEvoy's treatment of foul brood in the fall. The sentence to which we take objection reads as follows: "Remove all the comb and honey from the hive of a diseased colony and give them either in their own hive, or another clean hive, as many sealed frames, etc." We have tried too many experiments in this direction to permit such a statement to go broadcast before the readers of THE CANADIAN BEE JOURNAL; to attempt to cure foul brood still using the affected hives without first disinfecting them, is simply perpetuating the disease. In the same issue of the JOURNAL we give the experience of A. I. Root, and if our own is not sufficient, surely when taken in connection with an authority such as A. I. Root should be and is sufficient. Does not friend Root distinctly say that he used 20 hives without disinfecting them, and that the disease again made its appearance in every one sooner or later. We have known the disease to return where a colony has been put into a non-disinfected hive a full year after it was taken therefrom. We do not deny but that there are cases where the hives may be used, but surely it is better to use the old time ounce of prevention than run the risk that one is likely to by not taking every precaution. Were it any great trouble to disinfect the hives, it might be worth while to take some chances, but when the cost is comparatively nothing, there is no good reason why disinfection should not be thoroughly carried out. The usual mode of disinfecting is by placing the hive in boiling water for a period of ten or fifteen minutes; there are other ways, however, for those who have no suitable convenience for boiling, by placing the hive over a fire, the same as a cooper places unfinished barrels, they do not require to be left so long as when they are boiled, the heat being greater from the fire than from the hot water. The older the hive the more propolis there will be in it, and the longer it will take to disinfect by heating. We have

on several occasions tried to disinfect the hive by lighting a fire in the bottom, but this not practicable as the heat does not have a chance to get into many of the crevices.

We would also take objection to the placing of the bees shaken from the foul broody colony directly on sealed combs. It is a very difficult thing to get a sufficient number of combs having all the cells filled, and if any of the honey is brought from the affected hive the disease is liable to appear even into the next spring. We would suggest that the bees shook from their combs be left to cluster several days till the honey taken with them is consumed; a saving will be effected by this course of procedure, if the experiment which we have lately been trying is of any value, and we are satisfied that it is, there is no reason why bees should not be left in the cluster in the empty hive for ten days or even two weeks, as after they have consumed what honey they may have in their sacs they will be able to get sufficient to keep them a live from other sources. Let us have it thoroughly understood, that all hives must be disinfected before they are used after once having had foul brood colonies in them.

THE COLONY WITHOUT COMBS.

That colony without combs which we spoke of in the last issue is yet doing well; in fact, instead of starving they are as lively as any other colony in the yard. After they had been queenless a short time, one evening, they were all clustered very quietly and it was too cold for them to fly out, we gave them a very nice queen that we wished to keep. We just placed her on the cluster, she crawled around over them for some minutes, then she began to crowd her head in between the bees, apparently trying to get into the centre of the cluster, and they seemed willing to accept her; she was soon out of sight. There seemed to be a suppressed murmur through the cluster as much as to say they had a queen again. Now if a colony is queenless late in the fall or winter can the queen not be introduced in this way without disturbing the bees? When ever they are clustered there does not seem to be such a disposition to fight. We have generally, in swarming time caught the queen and put an-

other queen on the cluster and she was accepted every time. If a black queen can be caught when the bees are clustering, and an Italian one put in her place it is a very easy way of introducing them. This colony has done more that simply remain in the cluster; they have actually built three quite large combs and filled them partially with honey, or something that they use for food; it may be apple juice, as we noticed them working on some sweet apples, but where they have got all their food for this length of time and sufficient to enable them to build comb and store is a mystery to us. They seem to be more active than a colony well provided with combs and stores. They cluster so closely that they consume less stores than others that are scattered among the different ranges of combs. We were surprised the other morning, on examining them while the ground was yet white with frost to see a beautiful white ridge of comb sticking out through the cluster on one side, and our daily examination has not convinced us that the percentage of deaths is as much with this colony as with those having plenty of combs and stores. They appear to have saved as much stores, as will keep them going till Christmas or pretty near it. It certainly looks as though this may be the road out of the difficulty that has taken so much cash out of the bee-keepers' pocket; viz.: the consumption of stores between the close of the surplus honey harvest, and the putting of the bees into winter quarters.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

BEETON, ONTARIO, NOVEMBER 1, 1890

The exhibit of honey at the East Simcoe Show, by Mr. H. L. Leach, was exceedingly creditable to himself and to the town. It was tempting in appearance, and in quality was as good as it looked.—*Orillia Packet*.

From the *Durham Review* we learn that; "On Tuesday night or Wednesday morning the fam-

ly of Mr. Thomas Smith were aroused to find his bee house in flames. The building, which was a good one of its kind, was destroyed along with a lot of empty hives, racks, comb and about 600 pounds of honey. The cause of the fire is not definitely known, but is supposed to have started from the bee smoker. Mr. Smith estimates his loss from \$250 to \$300, without insurance.

A FORTUNE IN ONE MACHINE.

A celebrated press-builder of the United States admits that one of the greatest printing presses yet produced will be furnished to the *Family Herald* and *Weekly Star*, Montreal, a paper that has distanced mostly all the weekly papers on this continent. The *Family Herald* goes on the principle of thoroughness in every department, and that is why it is such a standard authority to-day the world over. Well done Canada. The *Family Herald* and *Weekly Star*, Montreal, is to be congratulated.

As pointed out on page 313, the dovetailed hive, as made by A. I. Boot for 1891, will contain some decided improvements—improvements which we can recommend. Chief among these is the thick top bar. The top bar they will make $\frac{3}{8}$ inch thick and $1\frac{1}{4}$ wide. For years we have used a top bar just this depth, and as we pointed out when the burr-comb discussion was at its height, we could not complain of a preponderance of such nuisances. They will also do away with slatted honey boards. This does not apply to queen excluding honey boards such as we have recommended, but to the ordinary slatted board which is sent out with the Heddon hive, only not constructed on the break-joint principle. We have never included these in our price list in any other than the Heddon, and we are pleased to notice that the Roots do not think it necessary. They will also supply closed-end frames at fixed distances for those who desire them. On the whole, we can say that the changes made will meet with popular approval, and we hope that the anticipations indulged in by Ernest as to the success of these, the outcome of his trip to New York State may be verified.

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ADVERTISEMENTS.

EXCHANGE AND MART

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

BEES

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

GOING TO MANITOBA—79 colonies, chaff hives, 6 frames 13 1/2 x 10 deep, 59 empty hives, 600 frames of comb, empty frames, extractor bands, etc, \$500 cash here. Also brooder plant for 60 chickens, heater a ge enough for 2000 chickens \$60 cash here. POSTMASTER, Cumminsville, Ont.

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

HONEY.

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

- Put up in 60 lb. square tins per lb. 10c.
 - " " other styles of tin.... " 09c.
 - " " barrels " 08c.
- Freight in all cases to be prepaid to Beeton. We will allow 30 cents each for 60 lb. square tins. No allowance for any other style of package. Dark honey will be quoted for on submission of samples.

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

19 GAUGE.		72 in
n. 30 n.	36 in.	48 in.
\$3 10 4 0	4 85	6 00
9 5		

19 GAUGE.		6 30	9 90
\$3 25	4 00	5 00	

In less than full roll lots the price will be 1 1/2 c sq ft.

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FOR SALE—Several Brown Leghorn Cockerels, good birds; prices reasonable. Also a fine breeding pen of Plymouth Rocks, and two Plymouth Rock hens. R. ELLIOTT, Wingham, Ont.

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., Ltd., Beeton.

FOR SALE. B. Hamburg and Langshan Cockerels, from imported stock. Exhibition birds very cheap, extra good; also a few P. Cochins chicks. Write for prices. C. J. EISELE, Guelph, Ont.

FOR SALE—4 Light Brahma Cocks and Hens (yearlings), 25 Cockerels and Pullets; a set of Pekin Ducks in pairs and ties; Brown and White Leghorns, old and young; cheap if taken at once. JOHN COLE, 151 Hughson st., Hamilton, Ont.

FOR SALE, CHEAP, All my White Leghorns. Two hens, scored by Pierce 95 1/2 and 96; Three Cockerels and 17 Pullets, all beauties—more of them will score high. Also some fine Golden Wyandotte Cockerels and Pullets. A. W. GRAHAM, St. Thomas.

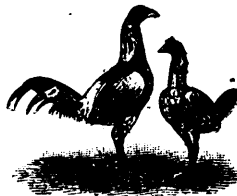
GREAT CHANCE.—A pen of Black Javs, Cock, three Hens, the same I exhibited at Toronto. Five dollars buys them. Cock and six Houdan Hens all first class, for eight dollars. A few Pullets and Cockerels for sale. A. HOBBS, Bowmanville.

FOR SALE, the 1st prize Toronto Rose Comb White Leghorn Cock, and 1st prize Hen, the best pair in Canada or America. Winners of 1st each at Industrial, 1890 Barrie and Collingwood, same season; 1st each at Duville P. Show, '89; 1st each at Owen Sound P. Show, '90. This Cock scored my Toronto Winners last season and this fall. He scored by Bicknell 94 1/2, by Lutterfield 94 1/2. Hen by Bicknell scored 93, by Lutterfield 93 1/2. 1st at Toronto and Collingwood, '90. Price \$8. W. C. G. PETER Angus.

GUINEA PIGS—I offer from now till 1st January, Guinea Pigs at \$1.00 per pair, sent to any address. JAS. McLAREN, Stephen st., Owen Sound.

EXHIBITION

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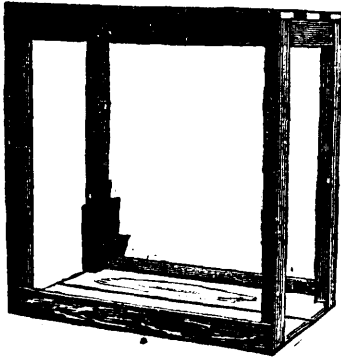
We will pay 30 cts cash or 35 cts in trade for good pure Beeswax delivered at Stratford (sediment deducted, if any).

The best packed hives made for wintering bees outdoors. 60 lb. tins neatly boxed. Shipping Crates for Comb Honey or anything required by Bee-keepers.

A few colonies of Hybrid Bees for Sale at \$5.00 per colony.

S. J. & E. H. MYERS,

MENTION THIS JOURNAL. Box 94, Stratford, Ont.



SHIPPING - COOPS

For Exhibition and Sale Purposes.

Save money in express charges by buying light, well made coops—weigh only 5 1/2 lbs.

We keep in stock one size only, 20 in. x 13 in. x 20 in for pairs or light trios.

PRICES MADE UP.

	Each	10	25	100
Skeletons, only,	30c.	\$2.75	\$6.3	\$22.50
With Canvas,	40c.	3.75	8.5	31.00

PRICE IN FLAT.

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

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

OTHER SIZES.

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

DRINKING FOUNTAINS.

For shipping and exhibition coops, to hold one pint water. Price,

Each	10	25	100
15c.	\$1.40	\$5.25	\$12.00

The water cannot slop out or become dirty.

Larger sizes made to order. Ask for Prices.



MAKE YOUR HENS

Earn their living by scratching for it.

—TRY—

Christie's Improved Feeder

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

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

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Niagara River and Grand River POULTRY YARD.

Mammoth Lt. Brahmas & Barred P. Rocks.

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

AKERLY & CLARK
DUNNVILLE.

ATTENTION FANCIERS !

I shall soon import from England a large number of

BUFF LEGHORNS

—AND—

Indian Games.

Orders received until Nov. 20th for imported birds. Buff Leghorns are all the rage. Send for prices. I have some fine BLACK LEGHORNS for sale.

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

Prices to suit the Times.

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

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GLEN VILLA POULTRY YARDS.

A. R. MCKINLAY

IMPORTER AND BREEDER OF

HIGH-CLASS POULTRY !

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

BROWN LEGHORNS AND BLACK MINORCAS.

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

Address

J. C. BENNER, Owen Sound

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Five banded Golden Italian bees and Queens and the **Reddest Drones**. Very gentle; very prolific; good honey gatherers—working on red clover—and the **Most Beautiful** loes in existence! Took 1st premium at Mich. State Fair in 1890. Reference, as to purity of stock, F. D. of C. B. J. Sample of bees five cents. Prices: Untested \$1.00, 6 for \$5.00. Virginia Queen 50 cts., 5 for \$2.00. Tested (at least 3 bands) \$3.00. Selected tested (4 bands) \$5.00. Breeding Queens none to offer, but will furnish them, 4 to 5 bands, for \$7.00. All former quotations are null and void. Arrival and satisfaction guaranteed. Canadian currency and stamps at par.

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The Doretalated Strongest, Heat and Cheapest **BEE-HIVE** for all purposes. Please everybody. Send your address to the **Largest Bee-Hive Factory in the World** for sample copy of **Cleanings in Bee Culture** (a \$1 illustrated semi-monthly), and a 44 p. Illustrated catalogue of **Bee-Keepers' Supplies**. Our **A B C of Bee Culture** is a cyclopaedia of 400 pp., 6x10, and 300 cuts. Price in cloth, \$1.25. *Mention this paper.* **A. I. ROOF, Medina, O.**

Muth's Honey Extractor.

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

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BARNES' FOOT-POWER MACHINERY



Read what **J. J. PARENT**, Charlton, N. Y., says—"We cut with one of your Combined Machines last winter 50 chaff lives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of bees, lives, etc. to make, and we expect to do it all with this aw. It will do all you say it will." Catalogue and Price List free. Address **W. F. & JOHN BARNES, 544 Ruby St., Rockford, Ill.**

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MARKETING DEPARTMENT.

(Honey Tins.)

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

No lbs.	Per 1000	Per 500	Per 100	Less each
10.....	\$100 00	\$55 00	\$11 50	.12
5.....	65 00	34 00	7 00	.07½
2½.....	50 00	26 00	5 50	.06
1.....	30 00	16 00	3 25	.03½
½.....	26 00	13 50	2 75	.03
¼.....	12 50	6 50	1 40	.01½
⅛.....	7 50	4 00	1 00	.01

Pressed screw tops and screw caps for the above tins:

No. lbs.	Per 100	Per 50	Per 100
5 and 2½	\$23 00	\$12 50	\$2 75
1 and ½	15 00	8 00	1 75

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

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

Varnished Honey Labels.

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

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

	Per 1000	Per 500	Per 100
5 pound labels.....	\$8 00	\$4 25	\$.65
2½ " ".....	5 00	2 75	.60
1 " ".....	3 50	2 00	.45
½ " ".....	1 75	1 15	.25
¼ " ".....	1 75	1 15	.25
⅛ " ".....	95	55	.18

Labels for tops of tins	90	55	.18
Printing name and address, first 100.....			.30
Each subsequent 100 up to 500.....			.12
Printing name and address, per 500.....			.75
" " " " " 1000.....			1 25

Shipping Crates for Sections.

Sample crates, glass included, made up holding 12 or 24 sections 3½x3½ or 4½x4½ each..	\$ 20
Per 10.....	1 70

IN FLAT HOLDING 12 SECTIONS.

Without glass, per 10.....	\$1 00
" " " 25.....	2 25
" " " 100.....	8 00

IN FLAT HOLDING 24 SECTIONS:

Without glass, per 10.....	\$ 1 50
" " " 25.....	3 25
" " " 100.....	12 00

We keep in stock crates that hold

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

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