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VOL. IV, NO. 30

1888

OCTOBER 17

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY  
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BEETON ONT.

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- BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.
- FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.
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- HONEY, some reasons why it should be eaten, by Allen Pringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers Price, with name and address, per 1000, 3.25; per 500, \$2.00, per 250, \$1.25; per 100, 80c. With place for: name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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See advertisement on another page. We have just arranged for the sale of these machines, and we can quote a price F.O.B. cars at Toronto (duty and freight paid thereto). On application we will forward catalogue and pricelist free.

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Beeton, Ont.

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Send us the names of three subscribers with \$3 in cash and receive as a premium one C. B. J. Binder.

Send postal card for sample of leaflet, "Honey, some reasons why it should be eaten."

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ERRORS.—We make them: so does everyone, and we will cheerfully correct them if you write us. Try to write us good naturally, but if you cannot, then write to us anyway. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

We can supply Binders for the JOURNAL 55 cents each, post paid, with name printed on the back in Gold letters.

Subscription Price, \$1.00 per Annum Postage free for Canada and the United States; to England, Germany, etc, 70 cents per year extra; and to all countries not in the postal Union, \$1.00

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.

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"American Bee Journal," weekly.....	1.75
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"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

TO CONTRIBUTORS

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

Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

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

Reports from subscribers are always welcome. They assist greatly in making the JOURNAL interesting. If any particular system of management has contributed to your success, and you are willing that your neighbors should know it, tell them through the medium of the JOURNAL.

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## THE BEE-KEEPERS'

# REVIEW.

For September is specially devoted to "Food and its Relation to the Wintering of Bees. If you wish to know the views of such men as Mr. Heddon, J. H. Martin, L. Staehelhausen, Dr. L. C. Whiting, Dr. C. O. Miller, R. L. Taylor and O. O. Poppleton; read this number.

### THE PRODUCTION OF COMB HONEY.

A neat little book of 45 pages, price 25 cents. The REVIEW and this book for 65 cents. Stamps take either U.S. or Canadian. Address

W. Z. HUTCHINSON

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Gem Rubber Stamp Co.,  
MALAKOFF, ONT

## CLARK'S

# COLD BLAST SMOKERS

We are making these, with late improvements, and can forward them by mail or with other goods by return post. The prices are as follows :

With goods. By mail.  
Each ..... 50c. 70c.  
6 at one time, each ..... 45c.

THE D. A. JONES CO. Ltd., Boston, Ont

## Muth's Honey Extractor.

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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

### THIS YEAR'S

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CUT and PLUG

## Smoking Tobacco !

FINER THAN EVER.

SEE

# T. & B.

IN B ONZE ON

EACH PLUG AND PACKAGE

## SALESMEN WANTED.

SALARY AND EXPENSES PAID, OR LIBERAL commissions as representative chooses. Outfit free. Permanent positions guaranteed. Experience unnecessary. Special advantages to local men who devote part time.

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BUY ONLY THE  
GENUINE

# BELL

ORGANS - PIANOS

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**Catalogue and Label Work.**

Note these figures, which include printing.

	500	1000
Note Heads, good quality.....	\$1 15	\$1 90
"    linen.....	1 25	2 00
Letter Heads, Superfine.....	1 75	2 50
"    Linen.....	2 00	3 25
Envelopes, business size, No. 7,		
white.....	1 15	2 00
Extra quality.....	1 35	2 25
Business Cards.....	1 50	2 50
Shipping Tags, 40c., 45c. and 50c. per 100.		

Our new book of labels contains nearly 100 specimens of elegant honey labels. Write for prices for any printing required.

THE CANADIAN BEE JOURNAL,  
7 BEETON.

**EXCHANGE AND MARR.**

Advertisements for this Department will be inserted at the uniform rate of 25 CENTS each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is specially intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

**BEES FOR SALE.**—40 good Colonies of Italian Bees for sale at \$6 per colony; for quantity write for discounts. Also a few young Queens at \$1 each. E. HEAL, St. Thomas.

**HONEY.**—We can take all that offers in exchange for supplies, at prices found in another advertisement in this issue. THE D. A. JONES CO., Beeton, Ont.

**BEES FOR SALE.**—25 colonies of good Italian bees for sale in L. frame hives at \$5 per colony, each colony containing no less than twenty pounds of stores. Address W. A. CHRYSELER, Box 450, Chatham, Ont.

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**FOR SALE** in Culloden, County of Oxford, a comfortable Dwelling, Outbuildings and four-fifths of an acre of splendid land, planted with the choicest fruit. In connection there are 80 Hives of Italian Bees with plenty of stores to winter, and everything else for carrying on Bee-keeping. All for Six Hundred Dollars (\$600). Owner leaving, and must sell. One of the finest districts for Bee-keeping in Ontario, situate two miles from Brownsville station, Michigan Central Railroad. Come and see, or apply to

JOHN A. CAIRNE,  
Culloden, Ont.

**WINTERING**

—AND—

**PREPARATIONS THEREFOR.**

A small but exhaustive and practical treatise on this important subject.

**POSTPAID 15 CENTS.**

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

**WANTED**—all your loose magazines, periodicals, and journals to bind, at the **BINDERY, BEETON, Ont.**

**'Practical Hints to Bee-Keepers'**

Sent free. Address  
American Apiculturist,  
Wenham, Mass., U.S.

**A RARE CHANCE**

The Authorised Capital by Government Charter of the D. A. Jones Co is \$40,000, the subscribed and fully paid-up Capital is \$19,000. We yet require

**TWO PRACTICAL MEN**

To assist in the management of our large supply business, who could invest \$2,000 to \$3,000, each of which will be fully secured, and good salaries will be paid. We want those who would remain permanently with the company. Good chance for suitable men. Arrangements can be made to take farm lands in lieu of cash. Principals only dealt with.

D. A. JONES,  
BEETON, ONT.

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  - D. A. FULLER, Cherry Valley, Ills.
  - JOB. NYSEWANDER, Des Moines, Iowa.
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  - GEORGE E HILTON, Freemont, Mich.
  - J. M. CLARK & CO, 1409 15th St., Denver, Col.
  - E. L. GOOLD & Co., Brantford, Ont.
- and numbers of other dealers. Write for **SAMPLES FREE** and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to sample in every respect. Everyone who buys it is pleased with it.

CHAS. DADANT & SON,  
HAMILTON, Hancock Co., ILL.



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

Vol. IV. No. 30

BEETON, ONT., OCT. 17, 1888.

WHOLE No. 186

### EDITORIAL.

**W**HY do bee-keepers growl at the Jones' single-walled hive because the frames are too deep to take the honey from above? I had them three high filled with buckwheat honey this season.—C. McInally.

\* \* \*

The apiarian editor of the *Farmers' Advocate* is evidently unacquainted with the by-laws of the O.B.K.A., otherwise he would not have penned the following in reference to the prize list at Toronto: "In looking at the prize list it will be found that the Ontario Bee-keepers' Association offer a special prize of \$25 for the neatest display of honey. Does the Government give a grant to this Association to boom Toronto in particular, or is it the intention next year to offer a special prize of \$25 at all the other exhibitions and fairs in the province? When Provincial money is expended, all parts of the province and all exhibitors should have a chance to receive the same treatment." Had the writer made himself conversant with the fact that grants of \$35 are made to all affiliated county societies and by them used to swell the prizes in the apiarian department of their local fairs, he would not have written such a query. 'Tis true it is Provincial money from which the Association makes the grant to Toronto, and can he point to another exhibition where every county and town-

ship is as well represented by visitors. The object of the grants is to bring out better displays of the luscious nectar and is it not policy to have the very best and largest exhibits at the point where the largest number of people can see them?

### CONDENSED CURRENCY.

A DIGEST OF ARTICLES APPEARING IN OTHER PERIODICALS.

**W**HE winter aspect of hives should be south or south-east, and good shelter should be provided at the back. Shortly, to sum up our advice for wintering we name the following points: Strong colonies, ample supply of sealed food, bees confined to as many combs as they can cover, impervious quilts, (or porous, if you will, but in either case plenty of woollen material, chaff cushions, etc., above the covering quilt), clean floor-boards, sound, weather-proof covers, firm, storm-proof stands, plenty of bottom ventilation and no disturbance of colonies after the middle of October.—B.B.f.

Section cases and spare combs should be carefully preserved for use another season. The former, we fear, in most cases, have been removed from the hives free from honey storage. The propolis should be scraped off the lower parts, and the whole case wrapped in a sheet

of paper, when it may be stowed away in a dry place until wanted. It is unnecessary to separate the sections, even when filled with foundation. As the case was removed from the hive, so let it be returned in the good season coming. This will save a large amount of labor and time, of which we all know the value when supering is required. Spare combs should be kept dry and free from dust.

Professor N. W. McLain, of the United States Experiment Station at Hinsdale, Ills., has been appointed superintendent of the Apiarian Exhibit of the Paris Exposition to be held in April, 1889.

In all ages honey has been used for many purposes. The ancient Britons used it to make mead, and this drink continued to be much used hundreds of years after them. When malt liquors became popular, and when sugar was introduced, the uses of honey went down for a time, but of late years it has gone up again with a bound. Honey is largely used in the manufacture of honey chocolate creams and honey chocolate tablets. There is a delicious taste of the honey in these articles, but they are so judiciously blended with the other materials that they are not too sweet. Honey is also now largely used by the confectioners in the place of sugar in many kinds of lozenges, cough drops and other sweetmeats. Glycerine and honey and honey jujubes for the throat; corn and honey food; herbal tablets, etc., are only a few of the many things that might be mentioned. The toilet is not left out, as it is used in soap and dentifrice. Doctors use it very largely for many purposes, and many doctors are amongst our most successful bee-keepers, and thus the purity of their medicines may be guaranteed. There are many persons who are not allowed to use sugar at all; to these honey comes as a boon. It is a curious thing to note that even the angler now uses honey, and natural honey fish bait is put down in the list of necessaries for the modern complete angler. What would old Isaac Walton say to this?—  
*Orange Judd Farmer.*

Read the grand array of premiums offered on page 575 of this issue.

For the Canadian Bee Journal.

#### QUERY 207.—DOCTORS DIFFER.

**M**HE answers to this query in the last issue of the JOURNAL are a study, and not, I should think, very well adapted to reassure the novice or carry conviction to the inquirer at the anxious seat. If there is any luxury in standing gloriously alone, then this deponent ought to be luxuriating. True, one or two of the respondents are in partial agreement, but none reach my position fully. What renders the answers to this query the more marvellous to me is the fact that I regard the points involved in this query as perfectly obvious. Of course, I may make the hackneyed admission that "I may be wrong," but yet I don't believe it. In fact, I know I am right from actual experience, and might as well say so.

The question under notice is the following :

Early in the honey season if I pick out 20 good colonies about equal in strength, and put perforated metal on the brood chamber of ten to keep the queen out of the top storey, about how much more extracted honey would I get in the season from the ten having the perforated metal on than the ten that had no perforated metal on, and which ten would swarm most in the season?

Prof. Cook thinks it would make no perceptible difference in amount of honey—gives no opinion as to swarming. G. M. Doolittle thinks there would be little if any difference, as regards honey, and for extracted honey the metal would increase the swarming.

James Heddon thinks it will make no difference in the amount of honey stored and that the excluders will increase the swarming.

A. B. Mason thinks less will be gathered with the metal, and there will be more swarming.

J. K. Darling thinks 25 to 30 pounds more of honey would be got with the metal and that it would increase the swarming.

Dr. C. C. Miller does not know that the metal would make any difference as to honey but thinks it would increase the swarming.

J. E. Pond, with certain qualifying if's, would expect one-fourth more honey with the use of metal, but gives no opinion as to swarming.

Eugene Secor thinks you would get no more honey with the metal, if as much, and that it increases the swarming.

G. W. Demaree thinks that neither the quantity of honey nor the inclination to swarm is affected by the zinc.

Wm. McEvoy never used the metal, but thinks it would give 25 pounds per colony more, and that it would diminish the swarming. (Good.)

My own answer was, that assuming a good season, good queens and equality of colonies, 40 to 50 per cent. more honey would be pro-

cured by using the metal, and that we would certainly get more swarms from the colonies without the zinc.

The editor brings up the rear with the opinion that the top story would yield double as much with the zinc as without it, (which is very good) and that if you extracted from both storeys there would be little difference, (which is not so good), and that those with the metal would swarm the most, (which is worse and worse.)

How eight or nine of the bee-doctors above have reached the conclusion that a colony of bees, with twice as much housework, (brood-rearing), to do as another colony, can gather as much surplus honey in a given time as that other colony, is perhaps known to themselves, but I give it up.

When the queen has free access to the top storey she "spreads herself" as a mother, correspondingly, and keeps the workers busy nursing that ought to be in the fields gathering; and instead of extra stores of surplus honey, we have extra brooding and brood, and pretty soon an extra swarming fever to get rid of the surplus population. On the contrary, when the queen is confined to proper quarters by means of the perforated metal, the bulk of the working force of bees is where it ought to be, in the fields "making hay while the sun shines," and by attending closely to the extracting, first the inside frames nearly capped, and then the outside, every available bee may be kept rushing at work—the right kind of work—the honey will roll in, and with plenty of room and ventilation there will be but little swarming bother.

I have tested this matter to my own satisfaction, and my position, as already stated, is this: With the queen-excluding zinc, properly used, I can get about 50 per cent. more honey while it very materially diminishes the swarming.

ALLEN PRINGLE.

Selby, Oct. 8, 1888.

P.S.—After all gentlemen, "I may be wrong," but I don't believe it.—A.P.

Friend Pringle "may be right" but we don't believe it altogether. He does not question that with the zinc the yield would be doubled, but he doubts our opinion on the small difference if working for extracted. If we leave the honey in both stories until thoroughly sealed there would be a loss, but we extract when partially sealed thus giving the bees room, and taking it from both upper and lower the crop averages about the same. Without the zinc there is certainly more brood to feed, but in the end if the season continues

the worker force is larger, they take the field and store in both stories indiscriminately. Without the metal, and extracting as we do, giving plenty of room prevents the swarming, with the metal they are crowded more and will swarm.

FOR THE CANADIAN BEE JOURNAL.

### MODES OF WINTER PACKING.

**I**S this is the season for packing bees for winter repose, and as nearly everyone has his way of doing so, as well as the particular kind of material preferred for such work, I have concluded to give the way practised by myself, with very gratifying success. I am not, however, the originator of the plan, as Mr. J. B. Young of this place, was the first to use it, so far as I am aware.

Economy combined with convenience are considerations which should not be overlooked, and these, I think, we have in the following method:

First, secure from any music store or dealer in organs, some empty boxes from which the organs have been taken. These can be purchased, as a rule, for \$1 each, which is cheaper than the lumber alone can be had for at any planing mill or lumber yard, to say nothing of their being planed, tongued and grooved in such a manner as to make a very substantial packing case, capable of keeping out water.

I next cut them in two halves, from front to rear, giving sufficient slope so that when the roof is put on the water will be shed readily. Each box will now contain three hives, or six to each original box purchased, and all sufficiently deep to hold a two-storey Langstroth hive, or a single storey hive and one or two supers for sections, as the case may require, and the hives need not, therefore, be removed in spring until the first week of June or just before swarming commences. The roofs are made of the same material or some broad boards cleated together and fastened by hinges to the front top of the case, or box, so that you can stand behind and raise the lid at any time without jarring the bees in the least. Three entrances, or fly-holes, about nine inches long by two wide, all, of course, cut in front, four or five inches from the bottom to correspond with the position the hives occupy inside. I place them three or four inches apart, which gives plenty of room for easy manipulation, and at the same time allow about five inches of packing all around the outside of the hives. I prefer separate alighting boards in front of each outside entrance, of say, three or

four inches wide by one foot long, as I find the bees are less liable to enter the wrong hive than if the alighting board ran continuously along the whole front of the packing box. An inch rim is placed between the bottom of the brood chamber and the bottom board, which gives sufficient room for inserting a crooked wire for the removal of dead bees, etc., during the winter.

As to whether these outside cases should be painted or not, is for others who may use them to decide. I, however, prefer them so treated, if for nothing but the appearance. The roof should, in any case, receive sufficient paint to prevent leakage.

I have the hives standing in rows of 12 or 15 each in the apiary, so that a short time before I place them in their winter quarters, I gradually move them a little every few days, until I have all in clusters of three hives each, sitting side by side, so that all I have to do is to place the portable clamp, or box just where the cluster of hives stood, and place them inside. The bees seem but very little confused, in fact, appear rather delighted to find such comfortable quarters for the approaching cold weather. When the proper time in spring returns for the removal from the clamp, the two outside ones are again gradually moved from the centre one, so that in a few days they stand at the proper distance apart, without the bees being aware of any change of location. The sooner the hives are placed in these cases after all honey-gathering is over, or about Oct. 1, the better, as the bees seem to nestle themselves away so cosily that neither the rains nor any outside disturbance appear to effect them. I have always found that the bees flew from these repositories as late in the fall as was in any way beneficial so far as a last cleansing flight is concerned. With plenty of well ripened and properly sealed stores of any kind, no fears need be entertained. A board is leaned against the entrance in such a way as to prevent the cold winds and rain or snow from entering, always, of course, seeing that plenty of fresh air is admitted when necessary.

As to the kind of packing preferred, I may state that I have used saw dust, planer shavings and ordinary chaff, but I now use the chaff to be had at flax mills exclusively; both around the hives and on top of the brood-chamber, first placing some sticks crosswise of the frames, then a clean quilt, covering all up with about eight inches of the chaff. The entrances are left about two-thirds open all winter, after all danger of robbing is over. With me, packing the bees taken from the cellar in spring is quite beneficial. These, of course do not require the

same care in packing, nor is it necessary to use such expensive cases, as I have for this purpose some single ones of very light material that answer the purpose admirably.

Before concluding I may add that quite a number who have seen the plan given above, among them Mr. Martin Emigh, who, although not practising outside wintering, thinks it a very complete arrangement.

True, all this takes time, and trouble too, but there is very little about the bee business that does not require both at certain seasons of the year, and all timely preparation pays in the end, be it little or much. A successful bee-keeper must love the work to a greater or lesser extent, or failure in time is sure to follow, indeed, with two such seasons as have already passed, the great wonder is that so many are still resolving to prepare for another season; you may, however, place me right on that list, as I trust all those having bees next spring may have a good honey harvest, and thus cheer up any who may have, to some extent, become discouraged of late. Mrs. G., who is also an enthusiast, says that a few more such songs as was published in *Gleanings* for Oct. 1st, viz.: "Dot Happy Bee Man," written and composed by friends Miller and Secor, ought to dispel all gloomy foreboding as to the future.

F. A. GEMMEL.

Stratford, Ont.

Dr. C. C. Miller in American Bee Journal.

### BUYING A LOCATION.

NECTAR PUBLIC PROPERTY.—LEGISLATIVE PROCEEDINGS.

**F**RIEND Newman:—I enclose a private letter from one of the prominent bee-keepers of Canada, and I think that I betray no confidence in allowing you to print that part of it which is of public interest, and shows some careful thinking. I am glad to know that I am not so entirely alone as I formerly considered myself, in thinking that *something* ought to be done. After reading the article of Mr. McNeill, on page 586, and the comments thereon, I am strongly impressed that bee-keepers will begin to see the possibility of conflict arising at any and all points, and that certain laws that might perhaps be easily had for the asking, would forever set them free from the danger of litigation that would come without the asking, and require heavy fees before its departure. But here is the letter from Canada:

"I fully believe in such legislation as will

enable a bee-keeper, by paying a reasonable sum of money, to control a certain territory. It seems to me that it would be a great mistake, on your part, to admit that the nectar does not belong to the land-owner. The farmer owns the land, pays the taxes, cultivates it, fences it, and, in fact, he is the 'lord' of the soil, and I know enough of farming to know that his labor is no mean task, and I confess it would be very difficult to convince me that the whole grass, or clover crop, including the roots, stalks, leaves, flowers—yea, and even the very nectar in the blossoms, do not belong to the owner of the soil.

"All and singular, most surely, are the personal property of the land-owner. But at the same time it is quite as clear to my mind that if all farmers or land-owners, if you please, should undertake to keep bees, and gather each his own share of that nectar, each and every one, or nearly so, would make a miserable failure; and what little honey that might be secured, or should be secured in that way, all costs being computed, would cost very likely not less than one dollar per pound.

"Well, now, it appears to me that the most rational thing in the world would be for these land-owners to simply sell their right for a term of years to a professional who would, in the most economical method possible, secure that honey, and thus be in a position to supply the people in nice shape, at a minimum price, one of the choicest gifts of a kind and benevolent Father.

"But how is all this to be accomplished, you ask? It is not a difficult matter, in my way of thinking. Simply get a permissive, local-option Bill through your Legislature, empowering the voters of a given locality, the size of which may be fixed by the bee-keeper who may wish to establish, or one who has already established an apiary in such a locality. Then after the necessary legal preliminaries are complied with (which need not be enumerated here), let the matter be decided in the same manner that many other public matters are decided, namely, by the ballot.

"I think that the money could be applied to educational matters or purposes with perfect satisfaction and equity to the people in that particular locality voted to the use of the bee-keeper in question. I believe this scheme would be just to all parties concerned.

"Every land-owner would be remunerated for his own nectar. The bee-keeper would feel that he was not stealing his living from some who think that they have a right to some fair consideration for the nectar that their own possessions produce. He would also rejoice in a sweet feeling of security, that some unwise person

cannot now come along and ruin his prospects after he has gone to all the expense of establishing an apiary.

"There would be no difficulty in carrying such a by-law in almost any rural district. Do you not see that nine-tenths of the people never keep bees, nor have they any expectation of doing so? and they would be quite willing to dispose of their share of the nectar to any one who would in turn pay a reasonable sum into the common school fund. Almost any offer that promises to reduce the taxes without inflicting difficulties, will be accepted by the people. Of course some difficulties would have to be surmounted, and detail adjusted, but I see no real serious objections to the scheme.

But on the other hand, if you start out declaring that the nectar is public property—belongs to everybody—I predict that in a short time you will have a lot of fellows pulling your hair in right lusty earnest."

From the Canadian Live Stock Journal.

#### October Work, and Other Matters.

##### THE FALL.

SINCE midsummer it has been as wet as it was dry from that back to March. The result of the abundant rains, accompanied by warm temperatures, is that there has been a good fall flow of honey; and although early frosts in certain localities in September cut off considerable buckwheat, the bees have pretty generally stored enough for winter, in some favored places giving a little surplus. This certainly makes things look much brighter for the bees next winter and spring. The season's honey crop is of course a failure, but the bees will go into winter quarters in much better shape than was expected two months ago. Brooding has been very well kept up during the fall. There will be, perhaps, more than the average proportion of young bees for winter, while otherwise the colonies seem in good healthy condition.

##### OCTOBER PREPARATIONS FOR WINTER.

Where the work of supplying deficient stores for winter has been neglected till now, that ought to be done first, and at once. Where you have spare frames of comb honey, give them to those in need in preference to feeding syrup. The latter is attended with risk so late in the season, as it is more liable to remain in the cells uncapped unless the October temperature is unusually high. However, where the comb honey is not available, syrup from number one granulated sugar may be fed. Feed on warm evenings and pack the colony up warm while it

is storing and capping. From the middle to the end of October all colonies ought to be re-weighed, as almost always a few, to the owner's astonishment, will be found short, after having been supplied a month or two before with what was at the time considered an abundance of stores for winter. It never pays the apiarist to "skimp" his bees of winter stores. And it must be remembered that enough to put the bees through is not enough, economically considered. Like the Dutchman's beer, in wintering bees "too much is just enough." That is to say, the bees ought to have so much stores over and above their actual needs that they will not fear to begin to brood freely in the cellar in the spring, and keep it up until the fields again begin to yield.

After supplying all deficiencies of food, the next most important work for October, where it has not been already done, is to pack the bees up warm and dry, and then *leave them alone* till it is time to carry them into the cellar or other winter repository.

#### HOW TO WINTER.

This is the great problem of bee-keeping. It is the hackneyed subject of apiarian literature but it will always be in order till bees can be wintered without unnecessary loss. The apiarist who can carry his bees successfully through the winter and spring is the one who will make bee-culture pay. There are various methods, most of them possessing more or less merit; and the best method will, of course, vary with climate and other conditions. For our Canadian climate my own preference is for *cellar wintering*.

During the past twenty-five years I have tried several methods, and have settled down upon the cellar as the best. I can winter bees outside on the summer stands either in double-walled, packed hives, or otherwise packed in chaff or sawdust, but there is much more work and a little more risk than in the cellar. A good cellar for wintering ought to be frost-proof, dry and well ventilated. True, success may be achieved with either one of these conditions absent, provided all other conditions are favorable. The first named is the most essential, ventilation next, and dryness last. When the temperature of cellar is right, and the colonies properly fixed up, humidity can do but little harm. If the apartment maintains a temperature between 40° and 50° through the winter, it will do. An even temperature of about 45° would be better, at all events up to about the first of March, when brooding commences; then and thence forward it ought to be a little higher.

#### TIME TO SET IN.

Bees ought to be placed in winter quarters before the hard freezing weather sets in. I have been getting mine in earlier and earlier from year to year, with good results. As a rule November is the month, though it may be prudent to put them in in October sometimes. The lower tier ought to be up a foot or two from the cellar floor, and the strongest and heaviest colonies should be placed in the lower tiers. The lightest should be on top so that they may be readily supplied with stores should they run short, and for the additional reason that they will be warmer on top. As to the vexed question of removing the summer pro-polyzed quilts, or not, in the case of strong colonies in a good cellar it makes but little difference. From weaker colonies they had better be removed, substituting therefore clean cotton quilts, on top of which place several thicknesses of warm woolen quilts. A space should be left below the quilts for a bee passage across the frames. This may be made by simply placing 2 or 3 inch-square sticks across the frames under the quilts. In placing the hives in tiers one above another, the second tier should not quite touch the upper quilts of the lower tier, and so on to the top. Close the entrances of hives before carrying them in, and carefully avoid all jarring or disturbance of the bees. After carrying them in, and just before leaving the cellar or apartment, reopen all entrances wide. Where the cellar will admit of it, the portion occupied by the bees ought to be partitioned off entirely apart from that used by the family for vegetables, etc.

ALLEN PRINGLE.

From Gleanings.

#### DRONES.

DO THEY SOMETIMES CONGREGATE IN SWARMS IN ANY PARTICULAR LOCALITY NEAR THE APIARY.

LET me give some facts that have come under my own observation regarding drones. About the middle of May, 1887, while walking south down the creek one day, looking at the prospect for white clover, I heard what seemed to be a large swarm of bees to the east of me. There was no honey being gathered at the time; and its being so early in the season, I was sure it was not a swarm. My curiosity led me to the spot whence the sound came, and there in countless numbers above my head were drones darting hither and thither after each other, and after everything else that chanced along. The area covered by them was about the same as a large swarm of bees; but the intensity of the noise they made was equal to that of three swarms of bees. Only the lower drones could be seen. The bulk of them were high in the air, 100 feet or so. By going a few rods to any side, the sound would come from the common centre, which showed that they were all together.

This particular spot is about 80 rods south from the apiary, in the centre of 20 acres of timber that had been cut off and is growing up in second growth. Where they congregate, the ground is more open than the rest. Between that and the apiary, or anywhere else in the timber, no sound of bees could be heard. And now comes the important part. Day after day, when drones were flying, I would go to that spot and there they would be, as many as ever. I have seen them dart at the devil's darning-needles, and have often amused myself by throwing up small chips or pieces of bark, to see three or four follow them nearly to the ground. There were 165 colonies in the apiary then before I divided it. This year there are over 100 colonies and the drones still fly in the same place. I was throwing at them just the other day. I believe nearly all the drones on the wing congregate there. My observations have extended over two seasons, and any one can see that I have made no hasty conclusions. If there should happen to be a doubting Thomas among those who read this, I should like the privilege of dispelling that doubt. And now come the question: Do drones all congregate at a particular spot for the purpose of mating with the young queens? Why do they select that particular spot two years in succession? Last year there were a good many other bees in the neighborhood; this year very few.

ROLAND SHERBURN.

Lone Tree, Ia., Sept. 2.

From the American Bee Journal.

#### N. A. B. K. A., NOTES.

THE North American Convention at Columbus, O., was a small but a very enthusiastic annual gathering of the bee-keepers of the Continent. Some seven States were represented, and our friend Holtermann, of Brantford, Ont., represented the Province of Ontario, Canada. It convened last Wednesday morning, and held six sessions. Then, as it was generally desired by those present to visit the Centennial grounds to view the attractions there presented, including the bee and honey show, the last day was spent on those grounds in social and fraternal intercourse, while examining and commenting upon the exhibits of bees, honey and apiarian supplies.

Some of the principal exhibitors were A. I. Root, Dr. A. B. Mason, Dr. H. Besse, Dr. G. L. Tinker, Mr. McPherson, etc.

The honey exhibit was very fine, and conferred credit upon all the exhibitors, many of whose names we cannot now recall.

Mr. Root's exhibit of apiarian implements

was large and varied, covering almost everything used advantageously in apiculture. In the "Power Hall" Mr. Root had his machinery running which makes one-piece sections complete, from the wood in the rough. The saws make such fine work that the sections looked as though they had been sand-papered. It is a triumph in the art of making sections to have them beautiful as well as useful. To say that in workmanship they were fully equal to those four-piece sections made by Dr. G. L. Tinker, is no small praise, for the Doctor's work has heretofore excelled almost everything presented in that line.

The magnificent coliseum building on the grounds is a marvel. It is said to hold ten thousand persons, and seat about six thousand. The speaker can be distinctly heard anywhere in the hall, so perfect are the acoustics thereof. It is about 250 feet across, and 100 feet in height.

Our visiting company consisted of Mr. A. I. Root, Dr. Miller, Mr. McLain, Dr. A. B. Mason and ourself. We prevailed upon Dr. Miller to play the organ and sing several pieces, accompanied by the rest of the party. We went to the further side of the hall, and we could hear the words distinctly—but we cannot enumerate all the things that were very attractive to us.

Mr. Ernest Root, son of A. I. Root, an estimable young man, was accompanied by his charming and affable wife. He had with him his instrument for taking instantaneous photographic views, and it was well employed. He "took" the members of the convention, the bee and honey building on the grounds, and several views of the exhibits.

Father Langstroth has taken a severe cold, and is again unable to leave home. For that reason his promised essay for the North American Convention was among the missing.

Eight States were represented at the International Convention. The following are the officers elected for the ensuing year:

PRESIDENT—Dr. A. B. Mason, Auburndale, O.

VICE-PRESIDENTS—Thos. G. Newman, Chicago.

Prof. G. W. Webster, Lake Helen, Fla.

Joseph Nysewander, Des Moines, Iowa.

R. L. Taylor, Lapeer, Mich.

O. L. Hershiser, Jamestown, N. Y.

Martin Emigh, Holbrook, Ont.

Frank A. Eaton, Bluffton, Ohio.

F. Minnick, Bessemer, Wis.

SECRETARY—R. F. Holtermann, Brantford, Ont.

TREASURER—Dr. C. C. Miller, Marengo, Ill.

Place of meeting, Brantford, Ont.

Singing was made a feature of the convention. Dr. Miller is an organist, and had composed the music for two bee-keepers' songs, which were written by that poet-laureate of bee-men—Mr.

Eugene Secor. Mr. A. I. Root, of Medina, O., had them printed and freely scattered at the convention. The result was some lively singing to introduce the *work* of each session. We think that no vote of thanks was offered to these gentlemen—wholly due to thoughtlessness, not to ingratitude.

By EUGENE SECOR. Set to music by DR. MILLER.  
**DOT HAPPY BEE MAN.**

Oh, I ish vone of dose happy bee mans,  
I don't got to vork any more;  
I loafs all day on der apple tree shade  
Or schmokes mine pipe on der door.  
For I haf boughted vone leedle bee-box,  
Zhust zhammed crammed full of dose pets  
Vot works a'll der day and nefer schleep nights,  
More'n ten tousand hundert I bets.

CHORUS.

Oh de busy, busy bee, Oh de busy, busy bee  
What sings all around about mine head,  
Oh de busy, busy bee, Oh de busy, busy bee  
What nefer stops vork ven I'm in bed.

I schmokes mine pipe und I vatches dose bees  
Und I laughs till mine schtomack goes  
schplit

Ven I see dem go schtrait for Hans Brinker-  
hoff's flow'rs  
Und nefer suck Yakob's vone bit,  
You see dot king bee hef awful schmart got,  
Und he say to his vimens "Coomo, coome,  
You schteals all you can from der people  
round out,  
Und pring it to Yakob right home.

Oh Katrina mine lofe, see dat gold on der legs,  
Dem prings a half-pound efery day;  
Ve schtarts a Pank quick ven dose bees gets  
some svarms,

Und brings in der vealth in dot vay.  
Mine frau her shall haf vone new gingham  
dress,

Der childers don't got to home schtay  
Und vork like some schlaves der kraut gar-  
den in,

But fish and play pall all der day.

Ve moves on der town und lives like pig pugs,  
"In der clover field," so Yankees say;

I'll vash mine feet from der dirt of der plow,  
Und jines der Union right away.

I run for der mayor or congress man too,  
Or president may-be I guess,  
Und all zhust because of dose bees in dot box,  
Dot vorks for most notings or less.

During the coming winter we intend making a "big push" to increase our already large circulation. Every reader can assist us either by canvassing the bee-keepers in his vicinity or sending us their names so that specimen copies may be forwarded. Liberal cash premiums will be given to canvassers. Let us hear from you by return mail.

## QUERIES AND REPLIES.

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

### Ripening Honey.

QUERY No. 211.—What degree of heat is required in a room to ripen extracted honey, and will the same temperature be right for comb honey?

ALLEN PRINGLE, Selby, Ont.—100° will do it.

G. M. DOOLITTLE, Borodino, N. Y.—I use 85° to 95° for both.

JAS. HEDDON, Dowagiac, Mich.—The hotter the better. If comb honey, not so hot as to melt the comb.

EUGENE SECOR, Forest City, Iowa.—From 80° to 100° is a good temperature to keep either comb or extracted honey in.

MARTIN EMIGH, Holbrook, Ont.—From 70° to 90° will do nicely for keeping comb honey; would prefer to have the honey ripened on the hive.

A. B. MASON, Aberndale, O.—That will depend upon the length of time in which it is desired to ripen it. At 90° either will ripen rapidly.

J. E. POND, North Attleboro'—You cannot ripen comb honey artificially. The temperature of the hive as caused by the bees themselves is right. For extracted a dry place, temperature from 75° to 90° F. will answer the purpose, but a still higher temperature will do no harm.

H. D. CUTTING, Clinton, Mich.—I cannot give the exact temperature required to ripen extracted honey. The temperature in my honey house often goes to 95° and 100° and we have no trouble in keeping honey. But we try to have it well-ripened on the hive before extracting.

DR. MILLER, Marengo, Ill.—70° would do some good, 80° would do well, and I think a higher temperature would be still better up to 100° or more. In fact, any heat that would not melt the comb would be desirable. But heat alone will not ripen honey. There must be ventilation so as to evaporate the honey. I think the same is true of both comb and extracted.

J. K. DARLING, Almonte.—Extracted honey well managed can be ripened at a far lower temperature than many suppose. Have taken it in the cellar before it got cooled off and had good honey. It was from that I took the honey I sent to the Indian and Colonial Exhibition. Could not keep comb honey there any length of time or it would spoil. Prefer a warm, airy, upper storey for both.

PROF. COOK, Lansing, Mich.—My extracted honey room is painted a dark color, is on the south west corner of the house, and has only the siding for a wall. Honey in this extracted in June and July becomes very thick and fine before September. I have never tested the degree of heat, but when the room is kept shut close it becomes very warm. A grand place for either extracted or comb honey. By opening the windows it is cool and pleasant.

G. W. DEMAREE, Christiansburg, Ky.—I would advise leaving the honey on the hives till it was of standard thickness. Honey when taken with the extractor should weigh not less than 11½ pounds to the measured gallon. My white clover honey usually weighs 12 pounds to the gallon. Such honey is of the best quality, and needs no tinkering with. Any room that has a south window through which the sun's rays may freely pass is a good place to keep honey (in or out of the comb). But the room should have a window on the opposite side covered with wire cloth so that the room can be properly ventilated. A dry cool atmosphere is better for honey than a highly heated damp atmosphere.

#### Young Queens Lost in Mating.

QUERY No. 212.—Can any one tell me the cause of so many of my queens being lost in mating? Sometimes I lose four out of five. I am only queen-rearing in a small way, having thirty-seven nuclei, yet we find much difficulty in filling our orders this season. There must be something catching them, as they never return to the hive after leaving.

DR. MILLER, Marengo, Ill.—D. A. Jones is the man to answer.

G. M. DOOLITTLE, Boredino, N. Y.—Queens are sometimes caught by birds, but not often in this locality.

MARTIN EMIGH, Holbrook, Ont.—The question is too hard for me. I have had the same trouble only not so bad.

ALLEN PRINGLE, Selby, Ont.—You are probably right in surmising that "there must be something catching them."

A. B. MASON.—I can't tell you the cause of the loss of queens. I have been troubled in the same way but not to the same extent.

JAS. HEDDON, Dowagiac, Mich.—No one can judge of the cause in an unknown locality. Have your nuclei unlike and not set along in a row like piano keys.

H. D. CUTTING, Clinton, Mich.—You are in a position to tell better than anyone at a distance. It is a case of cause and effect. You have the effect, set your wits at work to ascertain the cause.

EUGENE SEOR, Forest City, Iowa.—As the querist does not give his locality it would be only guesswork to attempt an answer. Even if I knew where he lived I could hardly divine the cause without knowing something of his environments.

PROF. COOK, Lansing, Mich.—We have had a similar experience this season, but never before. I have thought it might be owing to all the hives being white, arranged in perfect regularity on a smooth lawn, with no tree or bush to vary the bee yard. In our old evergreen bee yard we never had such a result.

J. E. POND, North Attleboro'.—There are many causes. If you would give a full description of your apiary and its surroundings an intelligent answer might be given; as it is you probably give the cause yourself and I should hunt carefully after the "something catching them."

G. W. DEMAREE, Christiansburg, Ky.—I believe I can. My views on this subject are embraced in an article from my pen, published in the C. B. J., page 469, vol. 4. Keep your nuclei as free as possible from the influences of laying workers. All pretenders in this line do not lay eggs, but their evil influence is all the same as if they did. When the nuclei are first made up and queen cells given to them keep a close watch over them and if any of the cells fail to hatch it is best to give such nuclei some more hatching brood and move the hive to a new location in the apiary. This will draw off the old bees and place the nucleus in condition to receive either queen cell or young queen. If a young queen is lost at mating time the nucleus should be supplied with some hatching brood and its location should be changed before it is entrusted with the care of a virgin queen.

Some lose their way, attempt to enter the wrong hive and are killed, birds prey on them. Many, we believe, attribute the loss of their virgin queens to some accident at mating, but our opinion is that many are stung by the bees just after mating in consequence of too frequent disturbance of the nuclei.

#### Space Below and at Side of Section Fdn.

QUERY No. 213.—How much space should be left at side and bottom of section foundation when stuck in the sections?

ALLEN PRINGLE, Selby, Ont.—One-eighth of an inch.

A. J. COOK, Lansing, Mich.—Just enough so that it will not touch the sections.

A. B. MASON.—I would leave no space at the sides, and one-quarter inch at the bottom.

JAS. HEDDON, Dowagiac, Mich.—At bottom one-quarter inch, at sides one-eighth inch.

G. M. DOOLITTLE, Borodino, N. Y.—One-eighth inch at sides, one-quarter inch at bottom.

H. D. CUTTING, Clinton Mich.—About one-eighth at sides, one-half at bottom if you use full sheets.

EUGENE SECOR, Forest City, Iowa.—I like about one-quarter inch on sides and one-half inch at bottom.

J. K. DARLING, Almonte.—I use starters, might prefer full sheets, but would want at least  $1/16$  of an inch at the side and  $1/4$  at the bottom to allow for stretching when being drawn out.

J. E. POND, North Attleboro'.—I prefer to fill the sections full. If space is to be left, the inclination of the party must govern, remembering that as a rule the more used, the less work for the bees.

MARTIN EMIGH, Holbrook, Ont.—One eighth of an inch at side and one-quarter at the bottom suits me very well. The section must be put together square and kept so that there will be no trouble with foundation warping. If properly done the comb will be fastened to the wood all around.

G. W. DEMAREE, Christiansburg, Ky.—I use the  $4\frac{1}{2} \times 4\frac{1}{2}$  sections, made of one piece just one-eighth of an inch thick. This gives a section precisely four inches square in the clear, inside measurement. The sheets of foundation are cut just  $3\frac{1}{2}$  inches square. When adjusting the sheets of foundation in the sections a little machine is used which takes hold of one-eighth of an inch of the sheet and presses it fast to the wood, so that when the sheet of foundation swings into its place, there is a space of one-eighth of an inch at each side and one-quarter of an inch at the bottom. By following this plan I get nice straight combs when working with or without separators. But I now prefer to use only starters. The sheets are cut  $3\frac{1}{2}$  square and a number of them piled one on the other. They are then cut diagonally from corner to corner both ways, giving four pieces to each sheet. This gives a V shape starter, the point of which reaches to the centre of the section.

We favor the sections grooved inside so that the foundation is in close contact with the wood all around. This avoids "pop holes" and ensures a perfect section.

## SUNDRY SELECTIONS.

G. MORRIS.—I like the JOURNAL very much. My bees have done very well this season. Some were weak in the spring, but they picked up strength, and from 20 colonies we took 500 lbs.

of cap honey and I think we will not have any feeding to do. I am going to clamp them this winter as I lost about 15 colonies last winter by giving them a flight.

Stony Point.

### A WET SPELL.

JOHN GALVIN.—The prospects for a fall flow never were brighter than prior to Aug. 10th, but after that date it rained for three weeks night and day, except perhaps two days, and since then it has been raining about four days in the week. My only consolation is that I shall have enough supplies left over for the season of '89.

East Sherbrooke, Que.

W. H. HODGSON.—I enclose you \$1 for another year's JOURNAL, for I would be lonesome this winter if I had not the paper. The season was poor, but I must not complain, as I think I have done as well as the most of bee-men. My yield is about 2,000 lbs. of comb, 800 lbs. of extracted and increased to 200 colonies with plenty of good winter stores. We have had no honey worth speaking of since the middle of August—nothing but rain and cold weather.

St. Charles, P. Q.

### DRONES.

One morning, a year or more ago, my little friend Max came in to see me; and as he walked across the room I noticed that he held both his hands behind him. As he approached my couch he explained, "I've got something for you—just hear them sing!" and suddenly, before I realized what he was going to do, he was holding his hands up to my ears. And, oh, such a buzz, b-u-z-z, b-u-z-z-i-n-g as I heard! I felt as though a whole swarm of bees had surrounded me. Glancing up at him I saw his eyes were twinkling, and he was shaking with suppressed laughter as he watched my astonished countenance. "O, Max!" I said, "are your hands full of bees, or what have you got in there? It sounds like a swarm of bees." "Just five bumble bees," he replied, "but they can't hurt you, for they are nothing but drones." "But where did you get them, and how did you know they were 'nothing but drones'?" I questioned. "Why, 'cause I found them on that old dead tree in the lane," he replied. "But, Max," said I, "how could that tell you they were drones?" "Ho!" he said, "don't you know how to tell a drone? Why, I'll tell you how you can tell them every time. The workers are too busy to lounge around and do nothing; and when they alight it is always on something they can work on; and when you see bees sitting around on dead wood, with nothing to do, you may be sure they are old lazy drones. Why, I have caught dozens of them, and they are always drones. I never caught a worker that wasn't at work, or else looking out for a job." "Well, Max, that is a new idea to me," I said; "but if that is the case, the bees are very much like people; are n't they? For a man who spends his time sitting around on old store boxes, and lounging about saloons, is generally a drone in the human hive. Our workers in the world haven't much time to waste, for they can always find plenty to do, and take pleasure in being useful.—*Gleanings.*

A FINE POINT.

G. M. T. BAULY in Bee-Keepers' Record:— Recently at an exhibition the sting of the honey bee was shown under the power of the microscope and the point of the sting could hardly be distinguished. The finest of fine needles was exhibited under the same power of the microscope and the point appeared nearly one inch across. A bystander asked, how could that great difference be? The exhibitor replied: "God can make a fine point but man cannot."

BUSINESS DEPARTMENT.

Some splendid queens of Carniolan extraction and post paid two at once for \$1.

In return for the names of ten bee-keepers sent us on a postal, we will send the "Bee-Keepers' Dictionary" value 25 cents.

No matter what kind of printing you want, it can be done at this office. Visiting cards, bill heads, envelopes, pamphlets, note-heads, anything. Write for figures.

PREMIUM LIST.

The following premiums are now offered to readers of the CANADIAN BEE JOURNAL. We have made special arrangements for the purchase of these articles, and are in a position to make the offer we do. One dollar must be sent with every name that is sent in, though they do not need to be sent all at one time, nor from one post office. The subscribers may be either new or old. If working for any of these premiums, the person so doing must advise us of the fact when they send in the first names. All articles which have to be sent by freight or express, will be sent, charges to be paid by recipient:

- TWO NAMES WITH \$2—**
- One copy Heddon's Success in bee culture 50
- " " Hutchinson's Review, one year 50
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1	Pass books 3 "Railroad" 16 p. paper cover.....	45	1 00
1	Pass books, 2 Steamboat 32 p.p.	45	1 00
1	Penholders 2, cherry, swell.....	40	
1	Ruler, hardwood, flat, graduated to 1/2, bevelled.....	45	1 05
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1	Time books for week or month.	75	
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2	Book of 50 blank notes.....	85	2 00
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3	Butter spades 9c. each.....	80	1 90
2	Boxwood pocket 1 foot rule....	90	2 10
2	Chisel, firmer 1/2 inch.....	90	

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3	Lead pencils, 1 doz. plain cedar Fabers 581.....	90	
2	Lead pencils 3 red and blue....	90	
2	Note heads, pads of 100 sheets..	90	
	Paint brush, No. 7.....		
2	Pocket note book, 3x5 in., 125 pages, stiff cover with band grand value.....	90	
1	Rubber bands, five, large.....	80	
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12	Dextrine, 1/2 lb. pkgs. for pasting		
	Glue, 1 lb. ordinary.....	1 30	
	Hammer, iron, adze eye.....	1 45	
3	Lead pencils, 1 doz., good quality, Faber's 971.....		
5	Note paper, 5 quires, 3 lbs., extra value.....	1 40	3 35
	Paint brush, No. 5.....		
6	Rubber bands in gross boxes. For queen nursery.....	1 30	
4	Rule, 2 foot, a splendid line....	1 40	3 40
	Screw driver, 5 inch, round bit, hardwood handle.....	1 40	
2	Statement heads in pads of 100	1 20	
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MONTH.	Untested	Tested	Selected	Virgin
May	1 50	2 50	3 00	
June	1 00	2 00	3 00	0 60
July	1 00	2 00	2 50	50
August	1 00	2 00	2 50	50
September	1 50	2 00	2 75	
October		2 50	3 00	

Three at one time, deduct 10 per cent ; six at one time, deduct 20 per cent.

#### EXPLANATIONS.

We are not, owing to our high latitude, able to ship queens before May, nor later than October.

Untested queens will be ready for sale as soon as mated, and before they have had a chance to prove themselves.

Tested queens are those which have been proven as to race and honey-gathering qualities.

Selected queens are chosen because of color, size and honey-gathering qualities.

Queens cannot be shipped unless the weather is warm enough, except at risk of purchaser otherwise safe delivery is guaranteed.

We replace all queens lost in transit, but not those lost in introducing.

#### BEES.

Bees should always go by express, unless they are personally cared for *en route*.

We do not hold ourselves responsible for breakage or delay in transit of colonies of bees they always leave our hands in good shape. We will send out only such colonies as we are sure will give satisfaction. Our bees will be such as the queens we offer will produce.

MONTH.	Italian	Italian Crosses	Caribbean Crosses
May	\$8.00	\$ 8.00	\$ 9.00
June	7.00	7.00	8.00
July	7.00	7.00	8.00
August	6.50	6.50	7.00
September	6.00	6.00	6.50
October	6.50	6.50	7.00

The above prices are for up to four colonies ; five colonies up to nine, take off 3 per cent. ; ten colonies up to twenty-four, 5 per cent. ; twenty-five colonies and over, 10 per cent—*always cash*. Bees at these prices will always be sent out in the Combination Hive, and each colony will contain a good queen, some honey, and brood according to the season.

#### BEES BY THE POUND.

Just as soon as we can raise them in the spring, we will have for sale, bees by the pound at the following prices :—Up to July 1st, \$1.25 per pound ; after that date, 90c. per pound. Orders must be accompanied by the cash, and they will be entered and filled in rotation as received. We are booking orders now. Do not delay in ordering if you want prompt shipment.

#### NUCLEI.

A two-frame nucleus will consist of one-pound of bees, two frames partly filled with brood and honey, and an extra good queen, price \$4. Two at one time, \$3.75 each—up to July 1st.

After that date the prices will be \$3 singly ; two at one time, \$2.75 each.

We can send frames that will suit either the Jones or Combination hive. Please specify which you wish. Should you prefer the nucleus in either Jones or Combination hive, add price of the hive, made up, to the cost of nucleus.

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