

# THE CANADIAN BEE JOURNAL

Vol. 20, No. 5.

MAY 1912

\$1.00 Per Annum

## CONTENTS

Page

	The Apiary of Mr. G. A. Deadman, Brussels, Ont. (Frontispiece)	
133	Making Concrete Blocks for Bee Hive Stands. G. A. Deadman	
135	Why Lose Fifty Per Cent. Profit? . . . . .	Samuel Simmins
137	Profits From Bee-keeping . . . . .	Morley Pettit
138	Woman's Department—	
	Why Go Into So Many Branches? . . . . .	Miss E. Robson
140	Methods of Uniting . . . . .	F. Dundas Todd
143	Death of Col. Checkley . . . . .	
143	Dandelion (Verses) . . . . .	Nellie M. Garabrant
144	Mr. Simmins and the Langstroth Hive and Frame . . . . .	
		Jos. I. Beaulne
146	Horizontal Comb for Queen Raising . . . . .	Joseph Gray
146	Strengthening Foundation by Painting With Wax . . . . .	
148	Reviews and Comments . . . . .	
152	The Late David Chalmers . . . . .	Miss Robson
153	Reports and Experiences . . . . .	
155	Wellington County B. K. A. . . . .	
156	Apiary Demonstration in Toronto . . . . .	
156	Bumble-Bees in Hives . . . . .	H. Kacer
156	Spraying Fruit Trees in Full Bloom . . . . .	

**Canadian Bee Goods**  
 For  
**Canadian Bee-Keepers**

**A full line for immediate or date shipment.**

**Everything first class.**

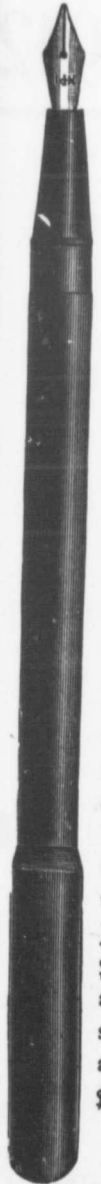
**Long distance freight allowance.**

**Early cash order discounts.**

**Best market price for Beeswax, cash or exchange.**

**Write for our Illustrated Catalogue for season 1912, if you have not received it.**

**The HAM & NOTT CO. Limited**  
**BRANTFORD, ONTARIO**



**F**

**Di**

**FOU**

**Free**

Nothing  
 ceptabl  
 any se  
 good I  
 The ab  
 a pen  
 guarant  
 that we  
 warrant  
 faction  
 ceiving  
 We are  
 to all ne  
 to the  
 Journal  
 \$1.35 fo  
 and to  
 sscribers  
 a two ye  
 \$2.00 in

**The Canadian B**  
**BRANTFORD,**

**The  
Canadian Bee Journal**

Devoted to the Interests of Bee-keepers

JAS. J. HURLEY, Editor  
W. WHITE, Asst. Editor

Published monthly by  
THE HURLEY PRINTING CO.,  
Brantford, Ont.

**TERMS**

\$1 per annum; two years, \$1.50, payable in advance. These terms apply to Canada, United States and Mexico; to all other countries, 12 cents per annum for postage.

**Discontinuances**—Any subscriber whose subscription has expired wishing the paper discontinued will please notify us by post, otherwise we will assume that its continuance is desired, and that it will be paid for. If the paper is to be stopped at the expiration of the time paid for, it should be so stated when giving the order.

**Receipts for Money**—The receipt of the Journal will be an acknowledgment of receipt of money to new subscribers. The receipt of renewed subscriptions will be acknowledged by postcard.

**How to Send Money**—You can send money at our risk by Postoffice Order or bank cheque or draft, and where none of these means are available, bills and postage stamps by registered letter. Money sent any other way is at your risk. We pay no exchange or express charges on money. Make all express orders, cheques or drafts payable to **The Canadian Bee Journal**, Brantford, Ont.

**ADVERTISING**

We are in no way responsible for any losses that may occur in dealing with our advertisers, yet we take every precaution to admit only reliable men in these columns.

**Rates of Advertising**

Time	1 in.	2 in.	3 in.	4 in.	1 col.	page
1 Mth..	\$ 2.00	\$3.00	\$3.50	\$4.50	\$6.50	\$10.00
2 Mths..	3.00	4.50	5.50	6.50	11.00	17.00
3 Mths..	4.00	5.50	7.00	9.00	15.00	25.00
6 Mths..	6.00	9.00	12.00	15.00	25.00	40.00
12 Mths..	10.00	16.00	20.00	25.00	40.00	75.00

**PRINTING FOR BEE-KEEPERS**

HONEY LABELS  
LETTER-HEADS  
BILL-HEADS

Write us when requiring Printing of any kind.

The Hurley Printing Co.  
Brantford, Ont.

**FREE**

A

**Diamond  
Point**

**FOUNTAIN PEN**

**Free as a Premium**



Nothing is more acceptable as a gift at any season than a good Fountain Pen. The above illustrates a pen that is fully guaranteed to us and that we can therefore warrant to give satisfaction to any one receiving it from us. We are giving it free to all new subscribers to the Canadian Bee Journal who remit us \$1.35 for one year; and to all old subscribers who send us a two year renewal for \$2.00 in advance.

**The Canadian Bee Journal**

BRANTFORD, CANADA

oods  
epers

date

ance.

S.

swax,

Cata-  
if you

imited

# Clubbing List for 1912

To Old and New Subscribers: Our Clubbing List for 1912 includes the following Remarkable Offers

WE WILL SEND

## The CANADIAN BEE JOURNAL

WITH

The British Bee Journal, \$1.50 ..	For	\$2 35
Gleanings in Bee Culture, \$1 ....	For	1 95
The American Bee Journal, \$1 ..	For	1 85
Bee-Keepers' Review, \$1 .....	For	1 85
Irish Bee Journal, 36c. ....	For	1.25
Montreal Weekly Witness, \$1 ....	For	1 75
Montreal Daily Witness .....	For	3 25
Northern Messenger .. . . . .	For	1 35
World Wide, \$1.50 .....	For	1 85
Family Herald and Weekly Star \$1	For	1 85
Canadian Poultry Review, 50c.....	For	1 40
The Breeders' Advocate, 50c. ....	For	1 40
Farmers' Advocate, 1.50.....	For	2 25
Weekly Sun, \$1 .....	For	1 75
News (Daily) Toronto .....	For	2 20
The Horseman (Chicago) .....	For	3 50

**Mail and Empire for \$1.50**

# The Canadian Bee Journal

Brantford

::

Canada



May, 1912

**r 1912**

**ng List for  
e Offers**

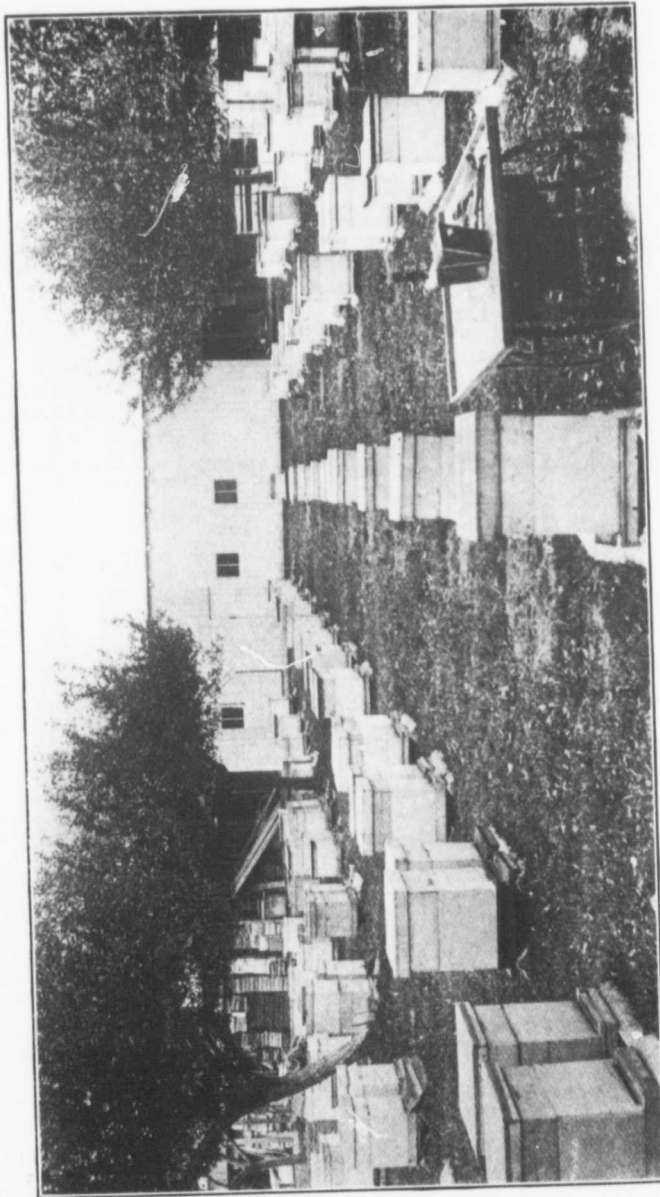
5  
5  
5  
5  
5  
5  
5  
5  
5  
5  
0  
0  
5  
5  
1  
1

**ournal  
nada**

## MAKING CONCRETE BEE HIVE

By G. A.

In making concrete stands, I decided to range in pairs. All between the two hi sary to make the blo As I was replacing fence which had do twenty years, I took inch boards and cut Two of these were trough style, or at a "board" on which the concrete, as ma length I happened to as would, when place about four feet wide, I placed four cross side of this was na inches wide—although done as well. These l not only make a board," but they al for each mold, as a placed on each side. placed the narrow p has to be some way the right way up. better for this than a each end, on each side the molds of one-wic side will be wider than is an advantage in placing the molds I wa to keep the narrow s having the wide side narrow side of the one



The Apiary of Mr. G. A. Deadman, Brussels, Ont.

# The Canadian Bee Journal

PUBLISHED MONTHLY

JAS. J. HURLEY, EDITOR, BRANTFORD, ONTARIO, CANADA

W. WHITE, ASSISTANT EDITOR.

Vol. 20, No. 5.

MAY, 1912

Whole No. 567

## MAKING CONCRETE BLOCKS FOR BEE HIVE STANDS

By G. A. Deadman.

Indesed

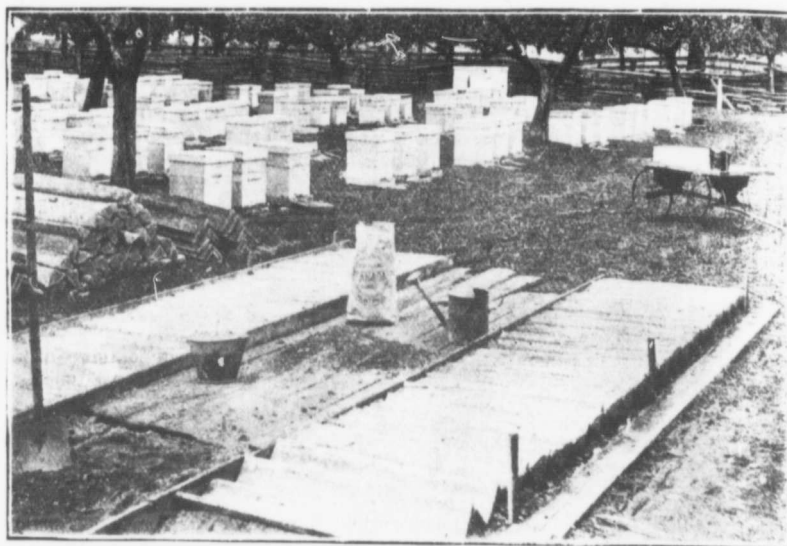
In making concrete blocks for hive stands, I decided to have my hives arranged in pairs. Allowing eight inches between the two hives, it was necessary to make the blocks 38 inches long. As I was replacing with wire a board fence which had done duty for over twenty years, I took some of the six-inch boards and cut them this length. Two of these were nailed together trough style, or at right angles. For a "board" on which to mix or make the concrete, as many boards of the length I happened to have were taken as would, when placed side by side, be about four feet wide, and under these I placed four cross pieces. On each side of this was nailed a board six inches wide—although less would have done as well. These boards at the side not only make a better "mixing board," but they also form one end for each mold, as a row of these are placed on each side. As the molds are placed the narrow part down, there has to be some way of keeping them the right way up. There is nothing better for this than a little sand, near each end, on each side. When making the molds of one-width lumber, one side will be wider than the other. There is an advantage in this, for when placing the molds I was careful always to keep the narrow side nearest me, having the wide side rest upon the narrow side of the one preceding it. In

this way we not only have a support on one side for each, but the sides now become of equal width. A board was then placed along the outside of each row to form the other ends. These are kept in place by stakes driven into the ground. By having your sand heap narrow, it is an easy matter to extend these molds along each side, and the sand will keep a board forming the inside end of the molds in place.

Having obtained the necessary sand and Canada cement, we are ready to begin. The sand was from the lake shore—the coarse kind. There was very little in it larger than marbles, anything larger than hen's eggs being raked out. For a job of this kind I prefer it finer. Nothing larger than peas may possibly be better. The proportions used were one of Canada cement to full three of sand. These were put in a heap and turned three or four times before adding the water. This cannot be done too thoroughly. We never mixed more than half a bag of cement at one time, which was sufficient for five blocks. As the top of the blocks comes next to the ground when placed under the hives, we need not be very particular about their appearance, being more concerned in having the molds clean, so that the narrow part at the bottom, upon which the hives are placed, will be smooth and level. The molds were sprinkled with water before filling. We used plenty of water, sufficient so the mixture would not require pounding, but not enough to leak away. Before it hardened, in usually about fifteen minutes or less, I took a plasterer's trowel

The Apiary of Mr. G. A. Deadman, Brussels, Ont.





Making Concrete Blocks for Hive Stands

and crowded it towards the centre of the block for about one inch down. This gave strength to the blocks and made them nicer handling, as it did away with the thin edges there would otherwise have been. We were probably negligent about sprinkling with water during the drying process, as most of them received none at all. Consequently those made during the hot days of July dried very rapidly. By using care, the molds could be emptied in twenty-four hours with comparatively little breakage. In doing this the molds were carried and carefully turned upside down on a soft, level place. When occasionally the block would stick, by spreading the mold slightly it would free itself. Now, as to the cost. Thirty bags of Canada cement, combined with nearly two loads of sand (three cubic yards), made three hundred blocks, which would be sufficient for that many hives. Two men can easily make fifteen blocks per hour, exclusive of emptying and replacing the moulds, which is hard to estimate,

but which does not take long. The cement at 40c per bag and the sand at \$1.50 per load would be 5c per block for the material, or what means the same, 5c per hive. To this must be added the cost of the labor. As it takes about as much water as cement we aimed to have this close by. Shorter blocks would do for some hives (Langstroth), but if so, I would use as much material or more, making them larger, which can be done with the size mold I have given. Still larger would be better. These same molds will make blocks 5x6 inches by placing them on their sides against each other. The foundation of my honey house is nothing more than one row of these at the front and back, placed on top of the ground. The molds can be used for hive stands if desired. In the cut the molds, with the exception of a few at each end, are filled, and the board at one side is already removed. By making a few in the evenings, less molds will do and the blocks should be better.

Cement is preferable, not only be-

May, 1912

cause of its durability gathers to rot.

Hives do not rot from wood, which is a good thing, as removing to winter they are not easily damaged. The blocks themselves of the concrete blocks stay in place well. The blocks themselves stay in place well. It is good to level up the ground. Brussels, Ont.

#### WHY LOSE FIFTEEN PER CENT?

Indexed PROBLEMS

The Langstroth Frame

By Samuel

(Concluded from page 133)

It should be understood that the actual size or strength of the frame that may make it equal to another of a different size of almost the same diameter. For instance, a frame 5" in length by 5" in width is a veritable death-trap, as it is itself to any sort of frame. Another frame 16" long will fulfil all the economic requirements in a modern beehive.

The Langstroth frame is low and too extended, making it unsafe, and sureing universally safe was it adopted in the first place. One mistaken reason that more readily enter the hive is that there is not sufficient distance between any good prolific queen.

In the days when only one section was used as "bait" in the sections, or such supers as the shallow frame may have an advantage in inducing the bees to work above. But now all

We have, or should have, full sheets of foundation supers, and better queens while bee-keepers almost full sheets of foundation supers, if they have not



cause of its durability, but less moisture gathers to rot the bottom-board.

Hives do not freeze down, as with wood, which is an advantage when removing to winter repository, and yet they are not easily displaced because of the concrete being slightly rough. The blocks themselves, being weighty, stay in place well. A little coarse sand is good to level up with.

Brussels, Ont.

**WHY LOSE FIFTY PER CENT.  
INDEXED PROFIT?  
The Langstroth Frame Out-of-Date.**

By Samuel Simmins

(Concluded from Page 12)

It should be understood that it is not the actual size or superficial area of a frame that may make it undesirable or unequal to another of a different shape, but of almost the same dimensions in square inches. For instance a brood frame 30" in length by 5" in depth would be a veritable death-trap, and would not lend itself to any sort of manipulation; while another frame 16" long by 10" deep would fulfil all the economic conditions required in a modern beehive.

The Langstroth frame is both too shallow and too extended in length for ensuring universally safe wintering. Why was it adopted in that form? For the one mistaken reason that the bees should more readily enter the supers; and yet there is not sufficient depth of comb for any good prolific queen.

In the days when only small guides were used as "bait" in the upper part of the sections, or such supers as were first used, the shallow frame may have been an advantage in inducing the bees to start work above. But now all that is altered.

We have, or should have, more prolific queens and better honey-gatherers while bee-keepers almost invariably use full sheets of foundation in their comb supers, if they have not as yet learned

how to start all drawn combs in their sections.

Consequently the only reason why the shallow stock frame was thought to be desirable, has long since ceased to be a factor in economic management; and it is time bee-owners extended the depth of the frame, as well as the results that should follow the change.

There is hardly a bee-keeper using the shallow Langstroth frame but who is assured in his own mind that a deeper frame would give him far more security in winter; and consequently greater profit in summer. There is hardly any need to reason the matter out, the conclusion is evident.

Mr. F. Benton was so certain on this point that at one time he adopted a plan of turning the Langstroth frames and hive up on end during winter, thus ensuring that the bees had a more compact bee-nest, and they would gradually rise higher as the stores were consumed.

In their normal position if the bees start clustering to one end of the frames, nothing will induce them to draw back to the other end for food during a long spell of cold weather. In a cellar it may not matter, but when set out, the bees are often in a precarious condition, with insufficient stores above them.

If only two or three inches were taken off the length and added to the depth, a great benefit is derived, and a more economic condition set up for all seasons.

I have tried frames 14"x14" but consider these, as also the Quinby, out of proportion for general manipulation, and finally decided on the 16"x10" frame as the best for all purposes.

I believe the late Capt. Hetherington preferred a deeper frame than the Langstroth, using the Quinby with a thousand or more stocks. On a larger scale he would have had greater losses with the shallow frame.

The late Mr. C. Dadant likewise discarded the shallow Langstroth frame,



take long. The  
ing and the sand at  
l be 5c per block  
what means the  
To this must be  
labor. As it takes  
er as cement we  
close by. Shorter  
some hives (Lang-  
would use as much  
king them larger.  
with the size mold  
larger would be  
molds will make  
placing them on  
each other. The  
key house is noth-  
w of these at the  
ed on top of the  
can be used for  
. In the cut the  
tion of a few at  
nd the board at  
oved. By making  
t, less molds will  
uld be better.  
le, not only be-



preferring the deeper Quinby. He said, away back in "Gleanings": "As we found again and again that the smallest crops came from the smallest hives (Langstroth) on an average, and that whenever the crop was short, twenty-seven out of every thirty small (L) hives had to be fed, while the large colonies (on Quinby frames) had generally enough, we transferred all the bees out of the Langstroth hives. For twenty years our large Quinby hives have given us better results than our small ones (Langstroth.)"

There is a further serious objection to the Hoffman Langstroth as turned out of late years. Many years ago I was able to show that there was a certain advantage in working during the honey season with stock frames set  $1\frac{1}{4}$ " to  $1\frac{3}{8}$ " apart. Especially is this the case when starting new swarms on full sheets of foundation, reducing the weight of bees to each sheet, and thus avoiding sagging. Now the manufacturer's idea is to set up a fixed space of  $1\frac{3}{8}$ " in all seasons—a most serious blunder in wintering.

The space is probably widened when the frames are used for extracting, but the stock combs remain at  $1\frac{3}{8}$ ". For wintering. I prefer a wider than natural space between the stock combs, and the following quotation from the 1893 edition of "A Modern Bee Farm" (p. 244,) may be of interest.

"Let it be considered that during cold weather the combs are really unnecessary except as the store cupboards. Under normal conditions, during late Autumn, at the central lower portion of the combs the cells are all empty just as vacated by the later batches of brood. As the cold weather comes on the bees form upon that portion of the combs, the nearest possible approach to a perfectly unbroken cluster. Some of them occupy the empty cells and rest head to head on opposite sides of

the centre wall of the combs, while others crowd between."

"Thus they make the best of the situation as they find it; but careful experiments, conducted over a series of years, have always shown me that the bees prefer to cluster in winter where there are no combs at all to intersect them, and in this situation have less difficulty in maintaining that animal heat so necessary for the preservation of life."

"We can therefore meet them halfway as it were, and while not removing the stores can alternate heavy combs with empty frames, thus bringing the cluster into a more compact mass, and entirely avoiding the frequent destruction of the unfortunate interseams of bees.

The close narrow spacing for winter is then no more nor less than a death-trap. It acts detrimentally in two different ways. The cluster is broken up too much, so that it is not compact; while on the other hand the stores sealed over in those thin combs will often deceive the owner. He thinks there is sufficient, and yet he will find the food disappear all too quickly at a period when perhaps he cannot replace it. The stores between each close-spaced pair of combs are quite inadequate, and the danger of starvation is augmented when the bees cannot shift to the other ends of the same scantily stored combs.

During 1910 Ed. E. R. Root began to write up this same question of the winter clustering nest; but he did not go far enough. His mind did not expand in either a vertical or a lateral direction, hence he could not realize that his shallow narrow-spaced frames were not a good example for illustration of the ideal winter nest.

Referring to page 20, Jan. 1st, 1911 "Gleanings," we find an illustration of four Langstroth frames, which are offered as affording sufficient food and clustering space for a moderate colony during win-

ter. Because of the two central combs a dangerously small even a moderate considers the thinness of

On the other hand it is considered that will consume more a lot. I should there the number of these even for the use of considering the thin  $1\frac{3}{8}$ " frames; and extend the space between benefit of the cluster

#### Alterations—TI

It is always a making alterations plant. It would in hives as well as frame the frames need or deeper, the same body with very little alter the better, as protect be added.

The 16"x10" frame in Great Britain in position from some of those adequate shallow Sta cost incurred by discard frames is one that covered the first year. have increased their than 50 per cent the change.

The Langstroth frame for Canadian bee-keepers reduce their winter have discarded it. W lead, and show friends what a deeper frame aggressive bee-keepers?

Heathfield, Sussex, 1  
Note—This second a (without revision) after lively comments my friends ed. That is just what bee-keepers' minds to I want my friends to ea

of the combs, while  
seen."

the best of the sit-  
d it; but careful ex-  
ed over a series of  
s shown me that the  
ster in winter where  
s at all to intersect  
s situation have less  
taining that animal  
for the preservation

meet them halfway  
ile not removing the  
e heavy combs with  
e bringing the clus-  
compact mass, and en-  
frequent destruction  
interseams of bees.

spacing for winter  
less than a death-  
mentally in two differ-  
er is broken up too  
not compact; while  
e stores sealed over  
ill often deceive the  
there is sufficient,  
the food disappear  
period when perhaps  
it. The stores be-  
d pair of combs are  
nd the danger of  
ted when the bees  
other ends of the  
ombs.

R. Root began to  
uestion of the win-  
but he did not go  
d did not expand  
a lateral direction.  
alize that his shal-  
ames were not a  
tration of the ideal

20, Jan. 1st. 1911  
an illustration of  
v, which are offered  
food and clustering  
colony during win-

ter. Because of their shallow depth the  
two central combs of the picture present  
a dangerously small margin for wintering  
even a moderate colony, when one con-  
siders the thinness of the sealed portions.

On the other hand except in the cellar,  
it is considered that a moderate colony  
will consume more stores than a stronger  
lot. I should therefore want to double  
the number of these combs respectively,  
even for the use of a moderate colony,  
considering the thinness of the stores in  
 $1\frac{3}{8}$ " frames; and should require to ex-  
tend the space between each comb for the  
benefit of the clustering bees (in winter).

#### Alterations—The Scrap Heap

It is always a serious consideration  
making alterations in one's working  
plant. It would indeed be serious if  
hives as well as frames had to go; but as  
the frames need only be shorter and  
deeper, the same body boxes will answer  
with very little alteration, and that for  
the better, as protective inner sides can  
be added.

The 16"x10" frame is making headway  
in Great Britain in spite of much opposi-  
tion from some of those using the very in-  
adequate shallow Standard frame. The  
cost incurred by discarding shallow brood  
frames is one that can be more than re-  
covered the first year. Some of my clients  
have increased their output by more  
than 50 per cent the first year of making  
the change.

The Langstroth frame is not the frame  
for Canadian bee-keepers, and they will  
reduce their winter losses when they  
have discarded it. Will they take the  
lead, and show friends over the border  
what a deeper frame will do for pro-  
gressive bee-keepers?

Heathfield, Sussex, Eng.

Note—This second article was posted  
(without revision) after I had noticed the  
lively comments my first paper had aroun-  
ed. That is just what is wanted to direct  
bee-keepers' minds to the subject, and  
I want my friends to ease their minds to

the full. This is only history repeating  
itself; I had the same lively opposition  
here when I first condemned the shallow  
British Standard frame; and now hun-  
dreds of bee-keepers are discarding the  
shallow frame.

#### PROFITS FROM BEE-KEEPING

By Morley Pettit

Profits in beekeeping are just as vari-  
able as in any other line of agriculture,  
depending on location, management,  
season, etc. The season of 1911 was  
considered a poor season in many parts  
of Ontario, yet the average report of 600  
bee-keepers pretty evenly distributed over  
the Province, was about \$5.00 per  
colony. I believe I am right in making  
the statement that 200 colonies of bees  
require less work than a 50-acre general  
farm, and I venture to say that the aver-  
age farm of 50 acres of land in Ontario  
does not give higher yield than \$1,000  
per annum. However, this average is  
below the profits that are being made by  
specialists in beekeeping.

Last season we had reports from a num-  
ber of beekeepers, distributed from the  
East to the West, reporting a yield of  
over 100 pounds per colony, worth  
9 or 10 cents per pound, wholesale. In  
one case, 69 colonies yielded 9,200 pounds  
—an average of 133 pounds. In another  
case a man of 67 years took 5,150  
pounds from 60 colonies—an average of 86  
pounds. In another case, a man of 80  
years of age sold his crop for \$1,000.  
These are not exceptional cases, but in-  
dicate what can be done by giving bee-  
keeping the same business-like attention  
that would be given to any other line of  
work.

I hope that these figures will not lead  
anyone to the idea that large profits are  
easily made from bees. Beekeeping for  
a living is not by any means to be taken  
up by one who is looking for "easy  
money." A great deal of care and  
thought and labor and skill are required  
by the one who would make money from  
bees. My only thought is to emphasize  
the statement made by the late Deputy  
Minister of Agriculture at the Ontario  
Convention of Bee-keepers, in November,  
that "Beekeeping is a business capable  
of greater development in Ontario at the  
present time than any other branch of  
Agriculture." (Farmers' Advocate.)

## WOMAN'S DEPARTMENT

CONDUCTED BY

Miss Ethel Robson, Ilderton, Ont.

### "WHY GO INTO SO MANY BRANCHES?"

This was the pertinent question asked at our convention after Mr. Clark had spoken on the combination of fruit, bees and poultry. "Would not you get your profits from three times as much as any one?" The point was raised by Mr. Chrysler who thought that if it required as much effort to master the other lines of business as bee-keeping, he would rather be excused. It is a question much argued over these days, some believing like Mr. Clark that it is wiser not to have your eggs all in one basket, others that it is best to have them all in one basket and then watch the basket. If it was simply a question of profits then the slogan of the Review "Keep more bees" would be the answer. However, though getting a living takes up most of our time, yet it is not the sole object of living, and each one of us has certain powers and ambitions which most emphatically demand an outlet, or we are discontented. Take our provincial apiarist for instance. He is an advocate of specialization; yet no one doubts that if he were to put the energy into "keeping more bees" which he puts into the work of his department that he would be dollars ahead. He himself might argue that his work is only an extension of the bee-keeping. Perhaps so; yet it is doubtful whether getting the clerical work of the department in hand was not pretty nearly equal to the learning a new business. Then there is Mr. Tyrrell, who also says "Keep more bees." Yet he is editing the Review. Now bee-keeping and editing a journal, even if it is a bee journal, are two very different lines

of endeavor,—at any rate, if the effort of turning out a small portion of copy monthly is any criterion to judge by. Again, take Mr. Clark, who is evidently a man with a taste for executive work and whose energy finds an outlet in planning the proper dovetailing of the three branches of his work. Even the humble writer of these lines would do better if she would stick to her bees. But instead of that she dabbles at half a dozen different things, and although she does not make quite so much money yet she knows a good deal more about living than she would otherwise. The truth is, as a writer in a late number of "Gleanings" remarked, it is largely a question of the individual. We all know men who have specialized in bee-keeping and made a great success, and we know and respect them. They are probably our best bee-keepers. Then again there are other men who simply could not pour all their effort into bee-keeping and yet who enjoy keeping bees and keep them well even if not quite so well as the man who specializes.

Then also keeping more bees means covering more territory, and while there is no end of unoccupied country, it is not always accessible. The young man may be willing to scatter his apiaries many miles apart, but the older man may want to remain at home. It is easier to overstock with bees than with chickens or fruit. The three make a capital combination particularly for the man on the outskirts of a town or city.

One of the bee-keepers I was out with on institute work owed his start in bee-keeping to the fact that his father had a number of hives of bees who, not

having time to handed them over t got into bee-keeping lar way. The bees v to look after them, a It is not a bad idea w ing family to have n interest the young p be only a side line may become a spec The main thing if keep bees is to look so that you do not to the neighborhood foul brood. Otherv want to shut anyone sure of bee-keeping, is not room for all t

### Disposing of the Hon are Born at

**Salesmanship** :— 1, tomer; 3, thing sold;

**Salesman** :— 1, Intre himself; 3, using sa his class.

**Customer** :— 1, F. 2, city; 3, retailer; 4, trade; 6, dentist; chemists.

**Thing sold** :— 1, bottles; 3, 10 lb. pa wrapping; 4, price; 5,

**Mail orders** :— 1, P; customer; 3, advertisi reach.

**Wholesale** :— 1, Hu crop reports; 3, distri

This was the intere gram which met our afternoon of the conve Mr. Tyrrell, of the R the speaker. In openi humorously that we had part of the convention i to product the crop ar him to tell us in a few dispose of it. Bee-ke much on this principle the year producing a cr

having time to take care of them, handed them over to the boy. I myself got into bee-keeping in a somewhat similar way. The bees were here with no one to look after them, and I took them over. It is not a bad idea where there is a growing family to have more than one line to interest the young people in. What may be only a side line in one generation may become a speciality in the next. The main thing if you are going to keep bees is to look after them properly so that you do not become a menace to the neighborhood in the matter of foul brood. Otherwise I should not want to shut anyone out from the pleasure of bee-keeping, and certainly there is not room for all to be specialists.

#### Disposing of the Honey Crop—Salesmen are Born and Made.

**Salesmanship** :— 1, Salesman; 2, customer; 3, thing sold; 4, sale.

**Salesman** :— 1, Introduction; 2, selling himself; 3, using sample; 4, working his class.

**Customer** :— 1, Farmer customer; 2, city; 3, retailer; 4, jobber; 5, drug trade; 6, dentist; 7, manufacturing chemists.

**Thing sold** :— 1, Jellies; 2, pound bottles; 3, 10 lb. pail (a) label, (b) wrapping; 4, price; 5, comb honey.

**Mail orders** :— 1, Package; 2, finding customer; 3, advertising; 4, classes to reach.

**Wholesale** :— 1, Hunting markets; 2, crop reports; 3, distribution.

This was the interesting-looking diagram which met our view on the last afternoon of the convention in London; Mr. Tyrrell, of the Review was to be the speaker. In opening he remarked humorously that we had spent the greater part of the convention in discussing how to product the crop and then expected him to tell us in a few minutes how to dispose of it. Bee-keepers work too much on this principle; they spend all the year producing a crop of honey, and

then often dispose of it in five minutes. Before Mr. Tyrrell had finished he made us feel that selling honey was a good deal more dignified proceeding than many of us had regarded it.

Much of the above diagram is self-explanatory. There is a general idea that salesmen are born. This is true; but it is equally true that by studying conditions they can also be made. Knowledge is the key which opens the door to success. The man who would dispose of his honey profitably must learn the underlying laws which govern selling. Salesmanship is made up of four factors,—the salesman, the customer, the thing sold, and lastly the sale which is accomplished by the salesman convincing the customer that he wants the article that is for sale.

**Salesmen** :—All men are salesmen; much of their success will depend on their method of introducing themselves. Many men have only their own labor to sell. Shall the man who is selling honey use a sample? The speaker thought it wiser not to do so as a sample as a rule gave very little idea of the goods. It was better to depend on having goods strictly up to the standard. The important point in selling was to learn how to work your class. If dealing with business men they expect a short pithy statement. Women are the largest buyers of honey, and a woman almost invariably wants to know why she should buy, and you must be ready to convince her.

Honey is put up in various ways, in jelly glasses, pound bottles, 10 lb. pails, and so forth. It is an advantage to sell in pails as much as possible, as it is not so much the number of sales as the quantity that counts. The pail should have a label on, and then a neat wrapping. This last impresses on the customer that he is getting a clean and wholesome article. It is not wise to hold your honey at too low a price. This only makes the customer believe he is getting a poor article.



### METHODS OF UNITING

By F. Dundas Todd

During the swarming season the man who wanders among bee-keepers as I did last last summer has many funny experiences. For instance, his first question, just to break the ice, is apt to be "Well, how are the bees getting along?" and not infrequently the answer is, "Fine! I have had lots of swarms, and so expect to get lots of honey." Or, he may come across one who has had experience enough to catch a glimmering of the truth, and he will reply, "Lots of swarming, a perfect nuisance; just tell me a simple easy way of stopping it." Here and there we meet the expert, the man who gets a crop almost every season, and he is the tit-bit of the day for the inspector, for he will proceed to explain clearly every step in his bee-keeping methods. Let me try to tell a few of the tales told to me.

Bee-keeper number one is in the irri-

gated region, and keeps bees, first to ensure the pollination of his alfalfa fields, as a very important part of his income is derived from the sale of alfalfa seed. His land is naturally of little value for cereal crops, but after a good crop of alfalfa has been ploughed under it does well. So for these two reasons he keeps about a dozen acres under this plan all the time. He is far from "the madding crowd," but being a man of mental activity, he wants a little brain zest, and this he finds in apiculture. Bees are recreation to him, so when he wearies of the steady routine of the ranch, he breaks the monotony by working among the bees. He has on hand most of the modern books on bee culture, subscribes to the bee journals, and enjoys his winter evenings in planning new methods of management. Lastly, it pays, for year by year, he gets a hundred pounds of honey from each acre of alfalfa, an interesting fact by the way, for it indicates fairly well how many colonies his district can support. His



A Disappearing Type of Apiary. Honey Production in 1911—none.  
Possibilities of District 60 Pounds a Hive.



Api

judgment is that the one colony per acre count. Each fall he just four hives more acreage, and in spring will be equal. For in 1910 he had 18 colonies, in 1911 he had 15 colonies of alfalfa. The season's production was 100 pounds. In August 1911 he had 15 colonies on the stand.

Now this bee-keeper has done his work in a very satisfactory way, having every detail of his work in contrast with him I can say that who bought a colony in the first of July 1911 she had seven more; worse still with the vision of the years to come. "I will get seven swarms from this year, I will have the whole with bee-hives at five dollars a colony, not a cent's worth of loss." cost."

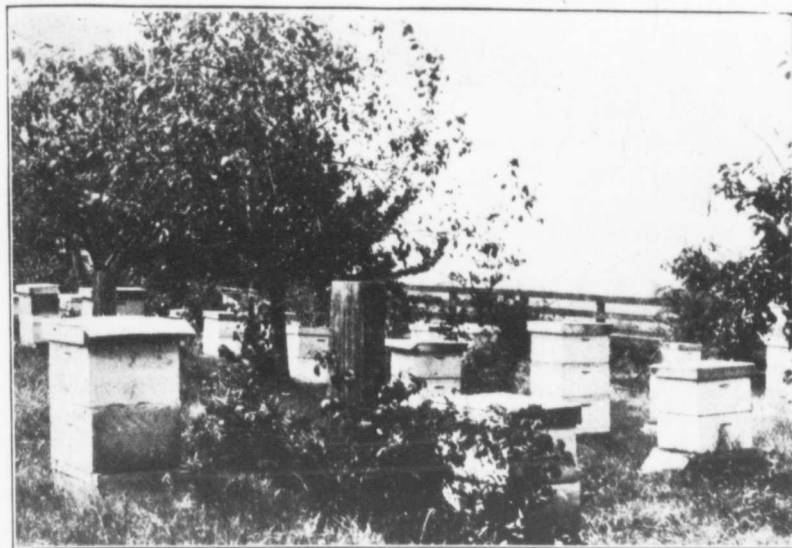
Spending the evening



keeps bees, first to  
of his alfalfa fields,  
part of his income is  
of alfalfa seed. His  
little value for cereal  
ood crop of alfalfa  
under it does well.  
ons he keeps about a  
is plan all the time.  
madding crowd,"  
f mental activity,  
in zest, and this he  
Bees are recreation  
earies of the steady  
he breaks the mon-  
nong the bees. He  
the modern books  
cribes to the bee  
his winter evenings  
ods of management.  
ar by year, he gets  
f honey from each  
eresting fact by the  
irly well how many  
can support. His



211—none.



Apiary of Mr. Chas. G. Stevens, Nanaimo, B. C.

judgment is that the proper number is one colony per acre of alfalfa, spring count. Each fall he has on the stands just four hives more than the alfalfa acreage, and in spring he expects they will be equal. For instance in the fall of 1910 he had 18 colonies, in the spring of 1911 he had 15 colonies and 15 acres of alfalfa. The season's crop was 1400 pounds. In August he again had 18 colonies on the stand.

Now this bee-keeper is going about his work in a very systematic manner, having every detail under control. In contrast with him I came across a lady who bought a colony in 1910, and by the first of July 1911 she was the owner of seven more; worse still she was horrified with the vision of the possibilities of the years to come. "Just think! If I get seven swarms from every hive, every year, I will have the whole ranch covered with bee-hives at five dollars a piece, and not a cent's worth of honey to pay the cost."

Spending the evening with the method-

ical apiarist, I got him to expound the details of his management. Although located in a region where the temperature frequently falls to 30° below zero and frost holds for weeks at a time, he winters on the summer stands without protection of any kind. When I first saw his bees the beginning of May they were in splendid condition with wide entrances so that ventilation was plentiful, and helped to prevent swarming.

When a swarm does come out it is usually a large one, for, as soon as conditions justify, the queen has had the run of a double brood chamber with a total of sixteen frames. The first ones to issue are kept to make up for winter losses and all others are reunited with the original colony. In every case the swarm is started off on the old stand, for two reasons; the first being to secure the addition of all the flying bees and thus have a powerful working force that will yield surplus honey; second, to so weaken the mother colony that all desire for further swarming will be eliminated.

Now let us follow his method in detail. The first swarm of the season is in the air, and is wanted for increase. From the shed he fetches one hive body empty, and one full of empty combs. The old hive is carried bodily to a new position, and in its place he puts a bottom board, the empty hive body, then the one with combs, and last of all the cover, but no quilt. Between the cover and the upper hive he slips a thin slip of wood, such as a match, so that there will be free upward ventilation. The empty hive is to provide plenty of clustering room for the bees and to ensure plenty of air. Then the swarm is gathered in and started into the new home.

Next day, when the bees have settled down, he removes the empty hive and places it above the one with the combs, but with an excluder between the two; then he goes to the old hive and transfers to the old stand all the combs containing honey, often taking some of the adhering bees along if he thinks they can be spared. He does not expect the old hive to do more than build up for the winter.

Once his stands are all occupied he reunites all swarms with the mother colony. The first step is as has just been described with the difference, that the mother hive is placed alongside of its original position, but a little back so as to be unobtrusive. On the second day after the swarm issues he begins to transfer the bees to the old hive. He takes from the upper brood chamber its contents, comb by comb, with adhering bees, looking over each frame carefully for queen cells, which are destroyed, then each frame is put on the old hive. The lower brood chamber is left alone for seven days in all, that is long enough for all eggs to hatch out and the larvae be over three days old. At the end of the week all the remaining frames are carried over to the old stand, all queen cells having first been cut out. Then the empty hive is removed.

There is one objection to this system. It retains the old queen at the head of the colony. It was my experience last summer that a very large number of first swarms superseded the queen about a month after the swarm occurred, so it is possible that the same action may be taken with these re-united colonies. It was therefore with extreme interest I followed the system of a bee-keeper that I met towards the end of the season, who assured me that he had secured a crop of 400 pounds from one colony in 1910 by blundering on a new idea. Purely local conditions prevented him getting any kind of a crop in 1911, so he could not try out the plan on a more extended scale. A neighbour three miles away did well, but I knew enough about his conditions to see it was impossible for him to do more than keep his bees alive. Prolonged submergence under water of all the district around him made what is ordinarily a good region, entirely unproductive.

Like the bee-keeper just spoken of, before swarming time comes, the queens have the run of two brood chambers. When the swarm issues, it is hived on the old stand, starters of foundation only being given in the frames. The old hive is set to one side, close, but a little back. When the swarm has settled down to work, which is generally next day, he puts an excluder on the top of the new hive, then carries over the top brood chamber, bees included, and sets it above the excluder.

Interest now centres in the old hive. When eggs appear there, showing that the young queen has taken up her duties, conditions are ripe for uniting. Go to the old stand and lift the hive containing the swarm off the stand and set it to one side. Then place the old colony, with its young queen, on the old stand. Place an excluder on the brood chamber, then above it a super of empty frames. The next turn to the hive just removed from the stand, take from it the super and put

on top of the excluder over the excluder brood chamber above the bees and both queen and young queen, the latter is to be removed. The latter is to be removed a few days she is secured. With so much room in the upper brood chamber she is easily secured. With so much room in the upper brood chamber she is easily secured from the hive.

In this system the young queen is present in the colony gains a powerful result is a powerful pile of honey when the young queen is present.

Victoria, B. C.

#### DEATH OF COL.

The death occurred Thursday, 18th April, at the country home, "Linden," near North Augustus, from North Augustus, Checkley, one of our Inspectors. The deceased came with painful rheumatism, but he enjoyed the acquisition of a new and robust constitution. He never looked the picture of a man which he enjoyed. On Monday, when he suffered from acute indigestion. In nature, however, was he rallied nicely and he was able to do the work of the farm on Wednesday evening as usual. After tea with heart failure and a short time.

The deceased followed the profession of a painter for a number of years in his early life. Then for

ction to this system. When at the head of the experience last summer a number of first the queen about a arm occurred, so it is same action may be e-united colonies It extreme interest I fol.

a bee-keeper that I l of the season, who had secured a crop of e colony in 1910 by r idea. Purely local him getting any kind he could not try out e extended scale. A s away did well, but his conditions to see him to do more than

Prolonged submer- of all the district that is ordinarily a unproductive.

er just spoken of. e comes, the queens o brood chambers. ues, it is hived on s of foundation only ames. The old hive ose, but a little back. as settled down to rally next day, he the top of the new ver the top brood d, and sets it above

es in the old hive. re, showing that the ken up her duties, for uniting. Go l lift the hive con- the stand and set it lace the old colony. , on the old stand. the brood chamber. r of empty frames. just removed from t the super and put

on top of the empty one. Now bring over the excluder, last of all place the brood chamber above the excluder. The bees and both queens are now in the one hive. The lowest chamber contains the young queen, the top one has the old. The latter is to be got rid of, so in a few days she is sought out and killed. With so much room below the top excluder comparatively few bees remain in the top brood chamber with the old queen, so she is easily seen. Once she is disposed of the upper excluder is removed from the hive.

In this system of management the young queen is preserved, in addition, the colony gains all the advantages of the young bees raised by the old queen while the young one was maturing. The result is a powerful working force fit to pile of honey when conditions are propitious.

Victoria, B. C.

#### DEATH OF COL. J. B. CHECKLEY

The death occurred suddenly, on Thursday, 18th April, at his fine country home, "Linden Bank," three miles from North Augusta, of Col. J. B. Checkley, one of Ontario's Foul Brood Inspectors. The announcement will come with painful surprise to all who enjoyed the acquaintance of the deceased. A man of splendid physique and robust constitution, Col. Checkley ever looked the picture of good health, which he enjoyed until the previous Monday, when he suffered an attack of acute indigestion. Nothing of a serious nature, however, was anticipated, as he rallied nicely and was able to resume the work of the farm, no later than Wednesday evening doing the chores as usual. After tea he was stricken with heart failure and passed away in a short time.

The deceased followed the occupation of a painter for a number of years in early life. Then for six years he oper-

ated a market garden within one and one-half miles of Brockville, and 21 years ago purchased "Linden Bank," an admirable farm of 200 acres, beautifully situated and convenient to the village of North Augusta. Combined with general farming pursuits, Col. Checkley carried on bee-keeping on a large scale. He was known as an experienced apiarist, and he will be greatly missed by the apiarists of the neighborhood.

#### DANDELION

There's a dandy little fellow  
Who dresses all in yellow,—  
In yellow with an overcoat of green;  
With his hair all crisp and curly.  
In the spring-time, bright and early,  
A-tripping o'er the meadow he is seen.

Through all the bright spring weather,  
Is seen his yellow feather,  
As he wanders o'er the hillside down  
The road.  
In mossy hollows damp,  
Where the gipsy fire-flies camp,  
His companions are the woodlark and  
The toad.

Spick and spandy little dandy.  
Golden dancer in the dell!  
Green and yellow happy fellow.  
All the children love him well.

But at last this little fellow,  
Doffs his dandy coat of yellow,  
And very feebly totters o'er the green;—  
For he very old is growing,  
And with hair all white and flowing,  
A-nodding in the sunlight he is seen.

The little winds of morning  
Come a-flying through the grass,  
And clap their hands around him in  
Their glee.

They shake him without warning,—  
His wig falls off, alas!  
And a little bald-head dandy now is he,

Oh, poor dandy, once so spandy,  
Golden dancer on the lea!  
Older growing, white hair flowing,  
Poor little bald-head dandy now is he!

Nellie M. Garabrant.

### MR. S. SIMMINS AND THE LANGSTROTH HIVE AND FRAME

By Jos. I. Beaulne (Central Experimental Farm, Ottawa.)

I read over the article written by Mr. Samuel Simmins, who alleges that Canadian and American bee-keepers are losing about 50 per cent. profit in their apiaries. He seems to be very much astonished in making his so-called discovery. I am more than sure we are making some rapid strides in the management of bees, and in breeding the best stock obtainable, but I do not look at it in the same way as Mr. Simmins does. Our bee-keeping conditions in Canada for one thing are not the same as those which we meet with in England, South America or Africa. Friend Simmins, however, seems to place them on the same base. I believe he is making a great mistake in doing so. Writing in that manner without possessing a precise knowledge of the subject he has undertaken to discuss is a very bad move on his part.

It reminds me of numbers of persons who come across the wide watery space to visit Canada. They spend two, three, even four months in the country and then return to where they came from, and write a book or two on Canadians, and what they have seen during their stay on this side. To get a good knowledge of the Canadian and American bee-keeping methods, a person must come across what we sometimes call "the pond" and pass at least 3 or 4 years and even that will not be found sufficient.

#### The Langstroth Frame

Mr. Simmins' charge against the Langstroth frame, although entirely valiant achieves nothing.

I disagree with him entirely, when he asserts that the Langstroth frame is too shallow for wintering purposes in cold

climates. We are here in a very cold country, and I do not see anything but Langstroth frames used around me, and the bee-keeping fraternity seem to be satisfied with it. I cannot believe that the Langstroth frame is too shallow for securing the best results in a temperate zone. In Canada we are in the temperate zone and judging by the vast amount of frames used having the Langstroth dimensions, surely there must be something good in it. We have many bee-keepers who pack their bees, and winter them outside on Langstroth frames in seasons that would make Mr. Simmins shiver from head to toes if I may be permitted to use such an expression.

By proper management I have seen bees in 8-inch Langstroth hives give a surplus of 200, and 250 lbs, and sometimes more. I don't think that friend Simmins will classify me with those self-styled progressive bee-keepers of his who expect to obtain large yields of honey from diminutive hives such as these.

The Langstroth frame can be used in hives ranging from eight to fourteen frame sizes, and it seems to me that this hive will bear favorable comparison with the type of hive or frame advocated by Mr. Simmins. He suggests that some reader should try eleven or twelve frames measuring 16 by 10 against 8 or 10 Langstroth. I consider this unfair. Why should he not advise a trial of a like number of frames? I believe he has overlooked this important fact. The test would then be a fair one. The queen with 12 Langstroth frames would have a laying space of 385,987 sq. inches, while that one with twelve 16 by 10 would only have 384,000 sq. inches of laying space. I cannot see how the 16 by 10 frames, Mr. Simmins is advocating should have more laying space than the Langstroth.

Now Mr. Simmins takes his hive in company with the Langstroth down to Argentina, in fact all over South America and Africa, where the conditions are

very nearly by the in Canada. I thought the article was restrictive now that we see else. I would as many practical in America, and South 10 frame-hives. I think that. I am acquainted with a bee-keeper who runs at Arequipa, Peru, (South man has always used and frames, and in him he has told me think of changing in conjunction with Why? Because it would good. He says, further Langstroth hive is just the conditions that prevail in Peru, which is in the if you want to go for the hives used by South Africa, are for out after the pattern hive, and where can you get an ample of progressive hives that British possession.

In one of the classic African Foul Brood Law no bees shall be kept in frame hives and the usually recommended to the Langstroth hive. Why? Because of relations connected with easily carried out if not than those connected with Simmins is trying to please Canadians and Americans to

The same conditions exist in Australia and New Zealand. Progressive bee-keeping is extensive scale.

In New Zealand only bee-keepers of that country the most distinguished advises in Bulletin No. 18 and Dept. of Agriculture 14) the adoption of the



here in a very cold not see anything but used around me, and aternity seem to be cannot believe that he is too shallow for results in a temperate e are in the temperate by the vast amount ving the Langstroth there must be some- We have many bee- eir bees, and winter angstroth frames in make Mr. Simmins toes if I may be per- an expression.

gement I have seen stroth hives give a 10 lbs, and sometimes that friend Simmins those self-styled pro- of his who expect to honey from dimin- ese.

me can be used in eight to fourteen ems to me that this ble comparison with frame advocated by uggests that some en or twelve frames ) against 8 or 10 ider this unfair. advise a trial of mes? I believe he important fact. The ir one. The queen rames would have 37 sq. inches, while 5 by 10 would only s of laying space. 16 by 10 frames, ating should have the Langstroth. takes his hive in ngstroth down to ver South Amer- the conditions are

very nearly by the reverse of those we find in Canada. I thought at first that this article was restricted to Canada, but I see now that we are going somewhere else. I would ask Mr. Simmins how many practical bee-keepers in South America, and South Africa use his 16 by 10 frame-hives. I would like to know that. I am acquainted personally with a bee-keeper who runs a large apiary near Arequipa, Peru, (South America.) This man has always used the Langstroth hive and frames, and in correspondence with him he has told me that he would not think of changing his system practised in conjunction with the Langstroth hive. Why? Because it would not do him any good. He says, furthermore, that this Langstroth hive is just the right one for the conditions that prevail in his country, Peru, which is in the tropical zone. Still, if you want to go further, we find that the hives used by the bee-keepers of South Africa, are for the most part made out after the pattern of the Langstroth hive, and where can we find a better example of progressive bee-keeping than in that British possession?

In one of the clauses of the South African Foul Brood Law it is enacted that no bees shall be kept in apiaries except in frame hives and the hive that is specially recommended to them is the Langstroth hive. Why? Because the manipulations connected with this hive, are more easily carried out if not better understood than those connected with the hive Mr. Simmins is trying to persuade us Canadians and Americans to adopt.

The same conditions are to be found in Australia and New Zealand where progressive bee-keeping is practised on an extensive scale.

In New Zealand one of the foremost bee-keepers of that country, and one of the most distinguished in the world advises in Bulletin No. 18 of the New Zealand Dept. of Agriculture, (pages 13 and 14) the adoption of the Langstroth hive

for two distinct reasons:—first because he believed the hive to be the best of those now in use; and secondly, because it is in general use in every part of the country. I do not know Mr. Hopkins personally, but I know enough of him to say that his career was not meteoric as Dr. Gandy's was.

From the same bulletin, (page 14) I copy the following extract:—"In 1851 "the Rev. L. L. Langstroth perfected the "hive which now bears his name, and "gave it to the world. It is astonishing "when we realize how perfect it must "have been when it left his hands, for, "notwithstanding the many attempts "made since to improve upon it, the "Langstroth hive remains to-day not only "the same, but the foremost in use and "popularity among the most experienced "apiarists in the world."

What more do we want than such a testimony from a bee-keeper of Mr. Hopkins's standing? There are scores of others who are saying and thinking the same thing.

"It is admitted" says Mr. Simmins "that when working for extracted honey, the Langstroth frames may often be used in two stock chambers, to which the queen is freely admitted; but this is seldom done where comb honey is worked for; and yet for this purpose even a larger population is needed, such as a single eight or ten frame Langstroth hive will never provide for."

Let me say here in conclusion that the giving of a double brood chamber in producing comb honey is done here perhaps a great deal more than Mr. Simmins imagines. In his way of seeing things, he appears to think we are using methods that are faulty. Let us assure him that such is not the case.

Ottawa, Ont. Feb. 13, 1912.

"Where all the flowers are roses,  
You do not see a rose."

—Richard Jefferies.



### HORIZONTAL COMB FOR QUEEN-RAISING

By Joseph Gray.

I can fully endorse all that Dines says in his article regarding the use of the horizontal comb for queen raising. It is the best cell getter I know of, that is, providing the apiarist has acquired a knowledge of bee life by following Miss Robson's advice of "living with the bees." The principle of good cell getting is wrapped up in the one sentence—"have crowded, queenless, clustering bees."

I prefer a comb honey super, drilling two 1" holes half way through the end pieces from the inside to your left hand, and cutting a slot down to the hole on the end nearest to you. Two nails driven through the end on the right side of you from the outside completes the arrangement. Six combs partly filled with honey and pollen are used in the brood chamber, the horizontal comb placed in position, a piece of burlap being laid or tacked on the upper side of the comb, and sacks covering the comb and hanging right down into the brood nest on both sides and you have a very snug warm stock of crowded, queenless clustering bees. The horizontal comb when in position opens out like the leaf of a book and rests on the left of the super.

How to get the bees—I use two stocks standing side by side. Remove one stock to one side, and in its place, put a clean hive with six combs from the super and the brood nest containing honey and pollen. There must be sufficient of this to supply all the feeding of the larvae. Secure from the stock plenty of nurse bees, and the flying bees coming back to the old stand make a crowded colony. The old stock can be put on a new stand, or another stock can be removed to a new stand, and the old stock placed on its stand. Now re-

move your second colony to a new location, and the flying bees returning will go into the queen raising colony. This work can be varied according to the intelligence of the apiarist and the season, the object being not only to secure nurses but a field force sufficient to secure fresh supplies daily of both nectar and pollen.

"Queens direct from the egg" has been my slogan for years. Under normal conditions bees raise queens from eggs and it is only when an accident has occurred leaving the colony queenless and consequently in an abnormal condition that they use larvae for queen raising.

If you want long lived queens follow nature's way and use eggs only.

San Emidio, Cal.

### STRENGTHENING FOUNDATION BY PAINTING WITH WAX

Several of our readers have addressed enquiries to us regarding our note in the March issue of the C.B.J. under the above heading. We have just been favored with a communication, together with samples of foundation, from the inventor of the process, Mr. H. Vogeler, of Oakland, Cal., who points out that there is no patent on it, so far as Canada is concerned, and suggests that Canadians should give it a trial. We are much obliged to Mr. Vogeler for his courtesy, and hope that our readers will test the method for themselves and report to us in due course. Instructions for painting the foundation are given on page 92 of the March issue.

During a discussion on "Foundation" at the 1909 convention of the National Bee-keepers' Association, several bee-keepers spoke in terms of very high appreciation of the "painting" process. Mr. Poppleton stated as follows:

Some six or eight years ago a gentleman in California sent me a permit to use his patent, and it is the finest I have

ever used, but patented I have much. Mr. Hill, the American Bee myself tried to ret purpose of giving world, but we dropped the ourselves; it beats wire for years and is simply forcing of the foundation brushing melted w adds wax to the and in some way them. I think t question of feeding them to use. I ta have a little dish stove so as to keep use an ordinary brush. I take up al just rub it over the wax will press out cells. It adds wax t per part and I have finest combs I ever entire question of The gentleman who process lives in South name is Henry Vogel in 1900. I would no back to wires or do would of trying to k not rob.

I use what is called as made by Mr. Da have used it from amount of wax used I think the more you because it is a matt back to the bees tha cents a pound instead 45 or 50 cents a poun

Mr. Poppleton, it discarded the usual w claimed that by his ing the foundation, t tached by the bees to ly enough for all o Dr. Jones, however, of painting, advises w and, for our own part, cur in this. Dr. Jo way of reinforcing:

I have got one of t you can find. I hav about half an inch wid

colony to a new location, bees returning will raise a colony. This is done according to the apiarist and the season, not only to secure a force sufficient to secure the colony of both nectar and

from the egg" has for years. Under normal conditions, queens are raised when an accident occurs in the colony, usually in an abnormal way, to use larvae for queen eggs. Queens that have lived queens follow the same rule as eggs only.

#### FOUNDATION WITH WAX

Readers have addressed regarding our note in the C.B.J. under

We have just been in communication, together with the foundation, from the process, Mr. H. Vogeler, who points out that on it, so far as Canadian and suggests that give it a trial. We wrote to Mr. Vogeler for hope that our readers will help themselves and our course. Instructions on foundation are given in each issue.

In our issue on "Foundation" in the National Bee Journal, several beekeepers of very high standing, "painting" process, stated as follows: "years ago a gentleman gave me a permit to use the finest I have

ever used, but on account of its being patented I have never given it out very much. Mr. Hill, the late Editor of the American Bee-Keeper in Florida and myself tried to retain the patent for the purpose of giving it to the bee-keeping world, but we could not succeed, and we dropped the thing. We use it ourselves; it beats wiring. I have not used wire for years and years. The process is simply forcing the wax to any part of the foundation that you want it by brushing melted wax over the surface. It adds wax to the edges of the cells and in some way or other strengthens them. I think that also solves the question of feeding wax to the bees for them to use. I take my comb, and I have a little dish over a little kerosene stove so as to keep the wax melted, and I use an ordinary three-inch flat varnish brush. I take up all the wax I can and just rub it over the upper half until that wax will press out over the edges of the cells. It adds wax to the cells in the upper part and I have no trouble. I have the finest combs I ever had. It solves the entire question of stretching combs. The gentleman who has patented this process lives in South California, and his name is Henry Vogeler. It was patented in 1900. I would no more think of going back to wires or doing without it than I would of trying to keep bees that would not rob.

I use what is called medium foundation as made by Mr. Dadant. This year I have used it from other makers. The amount of wax used is very light, but I think the more you can use the better, because it is a matter of feeding wax back to the bees that is only worth 30 cents a pound instead of having to pay 45 or 50 cents a pound for foundation.

Mr. Poppleton, it will be seen, has discarded the usual wiring process. He claimed that by his method of inserting the foundation, the comb was attached by the bees to the frames strongly enough for all ordinary purposes. Dr. Jones, however, another advocate of painting, advises wiring in addition, and, for our own part, we heartily concur in this. Dr. Jones describes his way of reinforcing:

I have got one of the finest frames you can find. I have a paint brush about half an inch wide, and I dip that

in hot wax. I wire my frames the same as this is wired, because we use them for extracting purposes in the upper storey. I was afraid of them breaking otherwise. Last year I tried it and I just took the brush and daubed a little wax where these wires are. Here is where they break loose very often. We don't need much wax. I worked it that way last year, and had very nice frames. Heretofore I have always had trouble with them bending, especially if it is hot weather. I could never get them to suit me. I have my wax almost boiling so that it will smear well. With a brush, using it lightly and quickly, you can get the wax on there after a little practice so that it reinforces it. My experience is it will blend right between these wires, but this stiffens it up so that you can put it in the brood nest or in the extracting chamber and the bees will build it out. I had it in twenty supers, and there was not a comb but what was just as straight as a board, and I never had that before. I tried it on a small scale last year on two or three hives. I got a number of extracting frames and I put in a couple of sheets of this, and the bees drew it out just as nice as anything. You take those and put them up above, and you have got a lot of new combs that way, and you have got them straight.

Mr. Dadant subsequently remarked, after hearing Mr. Poppleton and Dr. Jones, that the method was new to him, and that he was struck with the advisability of it. When you take the ordinary foundation, and put on it liquid wax—cast wax, in fact—it did not take much to stiffen it. You could thus probably use a lighter grade of foundation when so reinforced.

It should be noticed that only one side of the foundation is treated.

Every bee-keeper should understand fully the symptoms and cure of Foul Brood, then he can be his own doctor. Those who do not should drop a card to the Ontario Department of Agriculture, Toronto, and a bulletin with description and full instructions will be sent.

## REVIEWS AND COMMENTS

An Index to the Best in Periodical Apicultural Literature

### LEADING ARTICLES IN THE BEE JOURNALS

**American Bee Journal**—Bees Resistant to Foul Brood, Dr. C. C. Miller; Divisible Brood-Chamber Hives, Dr. C. C. Miller; Artificial Swarming or Dividing of Colonies, G. M. Doolittle; Marking and Color Indications of Bee-Parentage, A. C. Miller; Blending of Honey, O. L. Hershiser.

**Australasian Bee-Keeper**—Keep More Bees! Keep Better Bees! Keep Bees Better! How? T. Armour; Pollen Famine, G. James; Victorian Notes, R. Beuhne.

**Bee-Keepers' Review**—High Aim in Comb Honey Production, F. W. Muth; Best Method of Introduction in Shortest Possible Time, Wesley Foster; Organizations, G. H. Coulson; Comments, J. L. Byer; Shall We Buy or Rear Our Queens? J. A. Crane; Improving Bees While Producing Honey, G. B. Howe.

**British Bee Journal**—Heather Honey, Captain Sitwell; Legislation for Bee Diseases, H. Samways; Extracts and Comments, D. M. Macdonald. (Recent numbers not to hand.)

**Gleanings**—Transferring Bees, G. M. Doolittle; Various Articles Dealing With the Automobile in Apiculture; Increasing Colonies, G. M. Doolittle; Comb Foundation, R. F. Holtermann; Early Brood-Rearing, L. E. Gateley; Removing Bees From Walls, Crannies, etc., G. W. Rich; Characteristics of the Cross Between Italians and Caucasians, J. J. Wilder; An Abnormal Queen Bee, J. A. Nelson; Problems in Cellar Wintering, Dr. C. C. Miller.

**Irish Bee Journal**—Workers for the Honey Harvest, J. Tinsley; Spring Again! T. Maguire; The Month's Work, J. G. Digges.

**South African Bee-Keepers' Journal**—Handling Bees, D. M. Macdonald; What to Sow for Bees, F. J. Haarhoff; Dot Amongst the Bees, A. F. E. Hind; Granulated Honey, H. Martin; District Notes, A. F. E. Hind, R. H. Lownds; Parasites of Bees, J. H. Kuhlman.

Hebe's here, May is here!  
The air is fresh and sunny;  
And the miser bees are busy  
Hoarding golden honey.  
—T. B. Aldrich.

### REPORTS

Wintering reports, of which we print a selection in this issue, tell on the whole a cheerful tale. "One of the worst winters on record" is the expression most commonly met with in our correspondent's communications, yet the losses are small. It is not the uniformly cold winter that possesses terrors for the

bee-keeper; it is the variable winter that is sometimes experienced, when great fluctuations of temperature bring about a condition of restlessness within the hive that is not conducive to successful wintering.

### A NEW BULLETIN ON BEE DISEASES

Drs. Phillips and White, of the Washington Bureau of Entomology, have just compiled a work of some ninety pages reviewing in considerable detail the rapidly accumulating body of bee disease literature. The title of the bulletin, "Historical Notes on the Causes of Bee Diseases" sufficiently and accurately describes the scope of the work, which is indeed a most valuable sequel to the series of works already issued by the authors. The concluding sentences of the bulletin, as brief an epitome as one could possibly desire, afford the ordinary bee-keeper but cold comfort:—"Recent work has proven that American foul brood has as an exciting cause a specific bacillus, to which the name *Bacillus* larvae has been given. The writers of this bulletin believe that the causes for the other bee diseases have not as yet been satisfactorily demonstrated."

### WHAT TO DO WITH OLD CROOKED COMBS

Undoubtedly comb is far more valuable than the wax of which it is composed. Frequently bee-keepers come into possession of colonies upon crooked combs, which in due course of time give rise to the question at the head of this note. We recollect well and pleasantly our early days in bee-keeping when we used to scour the country "driving" bees for the owners of straw skeps and other primitive receptacles for bees still so common in the old world. We became in this manner possessed each fall of quantities of crooked combs, which were far too valuable to go into the melting pot but

which were cut up and being fastened together by means of tape, surprising what was obtained in this way fully and skilful pieces of such combs in replanting advantage in replanting comb in one's beehive. Doolittle says in ' of worker comb is

### INCREASE

There is a very tendency in the present moment many bee-keepers are not be better to their own colonies hanced prices and a the risk of import. lowing very excellent increase described in little will commend. "When the colonies in brood and bees, tract the swarming of emerging brood any, or one frame colonies, putting them together with two frames of honey, having the two between the frames of a dummy next to the side of the hive. Before the empty hive, all be and brushed off in from which they were queen will be taken. The space left vacant these combs out is filled comb, if possible; if a comb foundation. N of the stronger colonies excluder on it temporarily the hive already the two combs of emergence should be allowed to re hours, during which time will come up from the numbers to care for the After this the hive on the stand it is too should have been pre-purchased for these colonies laying queens can be given that night. A ripe queen; but a week more such cells are given. They now be built up in any

which were cut up, all the suitable pieces being fastened together in the frames by means of tapes and skewers. It is surprising what good combs may be obtained in this way if the work is carefully and skilfully done. Then, again, pieces of such combs may be used to advantage in replacing patches of drone comb in one's brood combs. As Mr. Doolittle says in "Gleanings" every inch of worker comb is valuable.

#### INCREASING COLONIES

There is a very decided upward tendency in the price of bees and at the present moment it is a problem with many bee-keepers as to whether it would not be better to make increase from their own colonies than to pay the enhanced prices and at the same time incur the risk of importing disease. The following very excellent method of making increase described in Gleanings by Doolittle will commend itself to many:—"When the colonies begin to grow strong in brood and bees, and before they contract the swarming fever, take two frames of emerging brood from any strong colony, or one frame from each of two colonies, putting them in an empty hive together with two frames partly filled with honey, having the two frames of brood between the frames of honey, and putting a dummy next to the comb on the vacant side of the hive. Before putting them in the empty hive, all bees should be shaken and brushed off in front of the hives from which they were taken, so that no queen will be taken from her colony. The space left vacant by thus taking these combs out is filled with frames of comb, if possible; if not, with frames of comb foundation. Now select another of the stronger colonies. Put a queen-excluder on it temporarily, and place on it the hive already prepared, having the two combs of emerging brood, which should be allowed to remain two or three hours, during which time the young bees will come up from below in sufficient numbers to care for the combs and brood. After this the hive should be placed on the stand it is to occupy. Queens should have been previously reared or purchased for these colonies, so that the laying queens can be given them at dusk that night. A ripe queen cell will answer; but a week more time is lost where such cells are given. These colonies can now be built up in any way desired. I

find that, if they are made a little in advance of the swarming season, as soon as the queen begins laying such colonies will build from two to four nice combs of the worker size of cells, if frames having starters are given them. But it is usually best to use frames filled with foundation. I have made colonies in this way with perfect success, clear up to the time of the blooming of buckwheat. There is no need of natural swarming for increase when we can make as many colonies as we desire in so easy a way. But such plans as these are made possible only through the advent of the queen excluding metal."

#### POLLINATION OF HARDY FRUITS

The Journal of the Royal Horticultural Society for March contains the results of investigations carried out in order to see (1) how far ordinary fruit flowers will set fruit without visits of bees and other insects to the blossoms; (2) to what extent fruit will be set by flowers pollinated with their own pollen; and (3) whether fruit blossoms, when pollinated with pollen from another variety, will set fruit more plentifully or of higher quality than when fertilized with their own pollen. In order to prevent entrance of insects or of pollen blown by wind, muslin or paper bags were used to enclose the flowers. The results obtained are summarized in the Journal of the Board of Agriculture (England) as follows:

##### Gooseberries, Red and White Currants

—When insects were excluded, practically no fruit was formed. They proved, however, all self-fertile, i.e., they set fruit perfectly when pollinated with pollen of the same flower or variety, but the pollen is sticky and cannot be transferred from the anthers to the stigma without mechanical means, such as is provided by visits of bees, etc.

**Cherries**—Not a single fruit set when insects were excluded. Attempts to fertilize flowers with their own pollen resulted in the formation of fruit in many cases, but except in the Morello, none

## MENTS

### literature

the variable winter experienced, when of temperature bring of restlessness within not conducive to suc-

#### LETIN ON BEE DISEASES

White, of the Washingtonology, have just of some ninety pages erable detail the raphody of bee disease le of the bulletin. n the Causes of Bee tly and accurately of the work, which is uable sequel to the eady issued by the luding sentences of f an epitome as one l, afford the ordinary l comfort:—"Recent that American foul iting cause a specific the name Bacillus ren. The writers of that the causes for ses have not as yet lemonstrated."

#### WH OLD CROOKED BEES

is far more valuable hich it is composed. rs come into posspon crooked combs, e of time give rise e head of this note. pleasantly our early when we used to riving" bees for the ps and other primi-ees still so common We became in this h fall of quantities hich were far too he melting pot but



of the fruit matured. All the flowers pollinated from another variety set fruit.

**Plums**—A certain number of the blossoms enclosed in bags and left untouched set fruit, and still more set fruit when artificially pollinated with their own pollen. All the varieties, except perhaps "Victor's," seemed to set finer fruit more plentifully when pollinated from another variety.

**Pears**—The tests with these were not carried as far as in the case of the other fruit, but two varieties, Duchess d'Angoulême and Colmar d'Été, pollinated from the same variety, set and matured fruits. A few others set fruit, but it did not mature.

**Apples**—Out of sixty-three varieties of apples on which unopened blossoms were enclosed and left untouched, the only one on which fruit set and matured was Irish Peach. Of those enclosed and pollinated with their own pollen by brush, only a few set and matured fruit. Others failed to set or mature fruit when pollinated with pollen of the same variety. In nearly all the crosses good fruits resulted. Of the 64 crosses made, 48 were successful.

**Strawberries** seem to be less dependent on insect agency than any other of our hardy fruits. Enclosed blossoms set fruit as well, or nearly as well, as those not enclosed.

**Raspberries** set fruit when flowers were enclosed in muslin bags, but the results were not so good as with flowers unenclosed.

It is concluded that fruit blossoms generally are dependent on the visits of insects, and for want of these many fruit plantations do not yield their best. Where there are no hives near, and where wild bees are not plentiful, a number of hives should be placed in fruit plantations. In the case of most varieties of apples, pears, plums, and cherries it is advantageous to have in close proximity a different variety flowering at about the same time.

## BEEES RESISTANT TO FOUL BROOD

In a former note which appeared in our columns on this subject, we commented upon Dr. Miller's statement in the American Bee Journal that Italians resisted disease, not because they were yellow, but because they were vigorous. Our own contention was that immunity did not necessarily mean vigor, or that vigor implied the power to resist disease. Dr. Miller's reply is at once interesting and instructive, and our readers will be glad to have it quoted in full:

These words are well worth considering. It may as well be conceded that immunity to any given disease is something separate and apart from vigor. A man who has been vaccinated is immune to smallpox, no matter how much of a weakling he may be, while a man of giant strength succumbs to it because not vaccinated. And so it may be that a particular race of bees, or a particular strain of bees, may be immune to a given disease, while a stronger race or strain may yield to it.

It may as well be confessed that this sort of immunity was not in mind when the article was written which our contemporary discusses. The thought, rather, was that one set of bees would actively clean out the dead brood, while another would allow it to remain. At any rate, it is a fact that a strong colony with a mild attack of European foul brood will often clean up the disease entirely, while a weak colony in the same condition will grow worse and worse. So it is hard to believe that the strength of the colony is not an important factor in the premises; and it may not be far out of the way to believe that the vigor of the individual members of the colony is of still more importance than the mere strength of numbers.

Possibly this is hardly the view that should have been taken, instead of the view of immunity our contemporary has in mind. An excuse, if an excuse is needed, lies in the fact that those who urge that Italians are better than other bees for those who want to be rid of foul brood not uncommonly use the expression, "Italians are better at cleaning up the disease."

Others, however, and our contempor-

ary among the are not consider the best at clean are considering to catch it." And must be cheerful tion then comes, nearly immune to than others?" tion, it may be a have had a bette to become immu have Italians been the disease than longer time in v mune? Certainly, is no novelty to blacks. Possibly enlighten us as regard.

A more importa relates to actual cans and Australi that Italians are th fear foul brood. the other way, es land. Is one wrong or is there a differ blacks and America there is a fair cha opinion, and more li on the question. be found in this l

As to the practi there need be little ion. If any one l strain of hybrids c above the average, the fact that the ge this country is that vigorous than black so in 99 cases out c good advice to urge of pure Italians.

As to the Doctor Italians more nearly pean foul brood than bound frankly to ac not know, our own e mainly been with brood, or what we us Old Country, the vi those parts of Euroj predominate and are find them displaying t ity to disease that is Italians in America. this is clear, at least the course of ages, the



## TO FOUL BROOD

which appeared in this subject, we commend Miller's statement in the Journal that Italians do not because they were more vigorous. It was that immunity meant vigor, or that power to resist disease is at once inactive, and our readers have it quoted in

well worth consideration. It can be conceded that the given disease is somewhat apart from vigor. It has been vaccinated is no matter how long he may be, while length succumbs to it. And so it may be true for race of bees, or a few bees, may be immune to disease, while a strong colony yield to it.

It is confessed that this is not in mind when it is written which our conclusions. The thought, rather, is that a set of bees would be dead brood, while it remains. At least that a strong colony often clean up the while a weak colony will grow worse. It is hard to believe of the colony is not or in the premises: far out of the way to favor of the individual colony is of still more the mere strength of

hardly the view that taken, instead of the our contemporary has use, if an excuse is fact that those who are better than other want to be rid of uncommonly use the uns are better at disease." and our contempor-

ary among the number, may say, "We are not considering which bees will do the best at cleaning up the disease, we are considering which are least likely to catch it." And the right to that view must be cheerfully admitted. The question then comes, "Are Italians more nearly immune to European foul brood than others?" As a subsidiary question, it may be asked whether Italians have had a better chance than blacks to become immune. In other words, have Italians been longer afflicted with the disease than blacks, and so had a longer time in which to become immune? Certainly, American foul brood is no novelty to either Italians or blacks. Possibly our contemporary can enlighten us as to European in this regard.

A more important question, perhaps, relates to actual experience. Americans and Australians in general say that Italians are the bees for those who fear foul brood. In Europe it stands the other way, especially in Switzerland. Is one wrong and the other right, or is there a difference between Swiss blacks and American blacks? Frankly, there is a fair chance for difference of opinion, and more light is really needed on the question. An open mind will be found in this locality.

As to the practical part, however, there need be little difference of opinion. If any one happens to have a strain of hybrids or blacks that are above the average, that does not alter the fact that the general experience in this country is that Italians are more vigorous than blacks or hybrids, and so in 99 cases out of a hundred it is good advice to urge the introduction of pure Italians.

As to the Doctor's question, "Are Italians more nearly immune to European foul brood than others?" we are bound frankly to admit that we do not know, our own experience having mainly been with American foul brood, or what we used to call in the Old Country, the virulent type. In those parts of Europe where blacks predominate and are indigenous, we find them displaying the same immunity to disease that is claimed for the Italians in America. The reason for this is clear, at least to ourselves. In the course of ages, the native bees have

acquired the trait of immunity in precisely the same way that human beings acquire it—through the process of the elimination of those strains that are least able to withstand the attacks of disease. On the other hand, a race, under certain conditions, may lose, to a very large degree, this power to resist disease, and such has been the case with the black bee in America. Introduced from Europe many generations ago, this bee has slowly spread over the whole continent, every succeeding swarm, as it proceeded westward, leaving further behind it those epidemic conditions which tended to permit of the survival only of the immune. Thus, in the absence of the selective process, the black race on this continent has apparently become non-immune.

## SPRING FEEDING

J. L. Byer writes in the Review: "It is quite possible to get a crop in most localities I am familiar with, without going to all the trouble and expense of feeding colonies from the time they are set out till fruit bloom. After that date (fruit bloom) feeding is pretty good practice in most cases, but not always necessary to secure a crop, circumstances as to season and locality being the deciding factors in the matter as to feed or not to feed." J.L.B. is "sound," as our mutual friend hath it!

## MISS ROBSON AT LONDON

Mr. Tyrrell writes in the Review:

The convention report would not be complete without mentioning the work of Miss Ethel Robson, who conducts the woman's department in the Canadian Bee Journal. Busy with her notebook all through the convention, yet she was not too busy to contribute her part to the interesting discussions, and what she said would indicate that she had a practical knowledge of the cause she is championing.

### THE LATE DAVID CHALMERS

By Miss Ethel Robson

It was with something of a shock that bee-keepers, the province over, heard last month of the death of Mr. David Chalmers, of Poole. Mr. Chalmers has been a familiar figure at conventions in Toronto and was one of the old established bee-keepers of Ontario. My first meeting with Mr. Chalmers was at the O. B. K. Convention in 1910 when he asked me if I would go up to Milverton the following winter to assist him in addressing the Woman's Institute there on the subject of bees. My visit occurred the following January when I had an excellent opportunity of seeing him both as a man and a bee-keeper.

Very soon after my arrival we went out to visit his workshop. It was one such as any bee-keeper might envy. It had originally been a store, the counters having been converted into work benches. The shelves gave endless storage room for all the paraphernalia a bee-keeper required, a stove making it a very comfortable place to work in during the winter. Mr. Chalmers, like a good many bee-keepers, was of an inventive turn of mind and many were the appliances shown me which he had used in his work. At the time of my visit his special pride was a winter packing case which surrounded the hive in such a manner that it could be tilted back, packing and all, and the dead bees brushed away. It was a somewhat complicated arrangement and revealed the nature of the man who delighted in close attention to detail, a proof that he was one of those men whom nature designed to be bee-keepers.

The following evening a large party gathered at the house, and at no time was Mr. Chalmers happier than when he was acting as the hospitable host extending a hearty welcome to all. The work shop was cleared of everything,

making an ideal place for a party. First there was a short entertainment and after lunch, music and dancing, the crowd dispersing to the good old refrain of "For he's a jolly good fellow." It is all changed now. Death has claimed him as he will eventually claim us all, but for many years to come a fragrant warm hearted memory will linger behind.

Mr. Chalmers was born of Scotch parents in the township of Wellesley, in June 1849. He received an excellent public school education and afterwards worked on the farm for a number of years. Seeing the great need in the neighborhood of some more profitable method of disposing of the dairy products, in 1873 he started the Honey Grove cheese factory which he carried on very successfully for a number of years, winning a diploma at the Centennial Exhibition. Later he rented the factory to his brother John, and finally disposed of it in 1897 to Mr. C. Clark.

Mr. Chalmers first became interested in bees when quite a young man through the efforts of an old school teacher, Mr. David Brown, and for 43 years he studied and loved them. At the old home they have a sketch of the cheese factory, with the bee hives standing out at one side. His sister Miss Janet was usually his assistant when he needed one. After giving up the factory he went more extensively into the bees. For the last three years of his life he was one of the provincial Inspectors for foul brood.

In 1884 he married Jeanie Y. Donaldson and their union was blessed by four children, Ralph, Jennie, Pedin and George. Mrs. Chalmers predeceased him by twelve years. Year by year he was adding to the comforts and conveniences of their home in Poole. When just as it would seem that he was accomplishing his desires, he was called away, and it now seems likely that the work of years will be scattered as the

May, 1912

family will like  
oldest brother has  
it with us all. W  
accomplish our pu  
have reached our

### REPORT

Bees had a fly c  
103-99 able to fly  
ly strong.

Hillsdale, April 2

Took out our bees  
having been in cel  
three days. Loss,  
showing up badly.  
and think bad stores

Morton, Ont., Apr

All my bees came  
of condition—140 col  
tered 4 in a case, pac  
and forest leaves. N  
yet. Prospects for cl

Harriston, Apr. 19.

There are about 20  
within the village  
were all packed in c  
dry saw dust. They l  
spring in good shape  
of a few colonies sta  
honey. Bees are bring  
len just now, and we e  
season.

Arkona, April 24, 19

Out of 130 colonies  
gave up the ghost and  
count of lack of stor  
have been attended to  
into the cellars on Oc  
came out on April 16th  
a half or nearly half  
fearsome time to conten  
a fly and yet because  
hung at 40° and they  
they are today practic  
when put away. As a  
pects for a good season  
vided Nature isn't sting  
present is backward and

... for a party. First  
entertainment and after  
dancing, the crowd  
good old refrain of  
"good fellow." It is  
each has claimed him  
ly claim us all, but  
ome a fragrant warm  
l linger behind.

as born of Scotch  
ship of Wellesley, in  
ceived an excellent  
tion and afterwards  
m for a number of  
eat need in the neigh-  
ore profitable method  
dairy products, in  
Honey Grove cheese  
ried on very success-  
of years, winning a  
entennial Exhibition.  
factory to his brother  
isposed of it in 1897

st became interested  
a young man through  
d school teacher, Mr.  
or 43 years he studied  
t the old home they  
cheese factory, with  
ling out at one side.  
net was usually his  
eded one. After giv-  
he went more extens-  
For the last three  
was one of the provin-  
foul brood.

l Jeanie Y. Donaldson  
was blessed by four  
Jennie, Pedin and  
almers predeceased  
ars. Year by year  
o the comforts and  
eir home in Poole.  
uld seem that he was  
esires, he was called  
seems likely that the  
be scattered as the

family will likely go west where the  
oldest brother has taken up land. So is  
it with us all. We strive and strive to  
accomplish our purpose, then just as we  
have reached our goal—perhaps before,—

we are called away to leave it all. Yet  
in spite of the apparent futility of the  
strife it is well worth while and in the  
end may we each and all be remembered  
as one who has fought the good fight.

## REPORTS AND EXPERIENCES

Bees had a fly on 6th April. Packed  
103—99 able to fly. Most colonies fair-  
ly strong.

JAMES MARTIN.

Hillsdale, April 26.

Took out our bees today, the 20th April,  
having been in cellar five months and  
three days. Loss, 50% with dysentery  
showing up badly. Did not feed last fall  
and think bad stores the cause.

JEHOIDA COON

Morton, Ont., Apr. 20.

All my bees came through in the best  
of condition—140 colonies in all. I win-  
tered 4 in a case, packed in dry saw dust  
and forest leaves. No pollen coming in  
yet. Prospects for clover are good here.

A. FYLE

Harriston, Apr. 19.

There are about 200 colonies of bees  
within the village of Arkona. They  
were all packed in clamps outside with  
dry saw dust. They have come out this  
spring in good shape with the exception  
of a few colonies starved for want of  
honey. Bees are bringing in lots of pol-  
len just now, and we expect a good honey  
season.

GEO. OTT.

Arkona, April 24, 1912.

Out of 130 colonies only about five  
gave up the ghost and they only on ac-  
count of lack of stores which should  
have been attended to. The bees went  
into the cellars on Oct. 31st 1911 and  
came out on April 16th—five months and  
a half or nearly half a good year. A  
fearsome time to contemplate with never  
a fly and yet because the temperature  
hung at 40° and they had good stores  
they are today practically as strong as  
when put away. As a consequence pros-  
pects for a good season are bright pro-  
vided Nature isn't stingy. The season at  
present is backward and cold and the bees

having no pollen to gather are making  
trouble among themselves. I am afraid  
some colonies will be wiped out of exis-  
tence.

H. HARLEY SELWYN.

Kirks Ferry, Que.

Finished setting out bees today. Out  
of 102 colonies there are two dead that I  
think were queenless when they were  
put in cellar last fall. The rest are in  
good shape.

A. BUCKINDALE

Jarratt, April 20, 1912.

66 wintered on summer stands; came  
through in good shape and not one dead.  
89 wintered in cellar. 2 dead and a num-  
ber very weak. Outside wintering by  
far the best in this section of the province  
for the past winter.

CHRIS. GRIMOLDBY.

Owen Sound, Ont.

Set bees out from winter quarters on  
Monday 15th inst. the first and only warm  
day so far. Have had no opportunity  
of examining them. The loss in colonies  
is 3%, but the bees are in poor condition  
with dysentery.

Weather continues cold. Considerable  
of the old snow drifts still lingering.  
Have very little idea of the prospects for  
the honey season.

GEO. WOOD.

Wesley, Ont., Apr. 19, 1912.

Placed 16 hives in winter quarters on  
Nov. 7. Of these one was weak,—in  
fact too weak to winter. Brought out  
on April 16, 15 hives in good condition,  
except one which will require strength-  
ening. Bees were wintered in an apart-  
ment back of stable, made of stone wall  
on three sides built into a bank. The  
severe frost however, penetrated the  
walls and the thawing created dampness.

J. R. BLACK.

Harwood, Northumberland Co. Apr. 26.

I put away on Nov. 8th for the winter 150 colonies. They were put out again on April 15th in fair condition. There were no losses. The prospect for clover is not very good, the hot dry weather last summer having nearly used up the white clover here. Still, have hopes of getting something.

R. LOWEY.

Woodrows, Ont.

We wintered 200 colonies in double wall chaff hives on summer stands and they came out O. K. Some of them were buried in six feet of snow. We noticed some of them a little damp and the outside combs a little mouldy. But there were very heavy losses around here amongst small bee-keepers, many of them wiped out completely. The winter has been the severest in 30 years. When you meet a small bee-keeper here and ask him how his bees wintered he shakes his head and says "nothing doing;" As for the prospects for the coming season it is a little early yet to speak with any degree of assurance. The clover last spring did not do well. Much of it was ploughed up but in my location I have nothing to complain of. I have only heard from those close around me but the loss in bees is very heavy.

W. J. JOHNSTON.

Cannington, Ontario, Apr. 24th

Our bees wintered well in this part of the country. That is, those that were taken care of. We winter outside altogether. When properly packed they come through in fine shape. Others that were left in summer hives outside with no extra covering lost heavily. I have come to believe that all losses are due to the carelessness of the bee-keeper. There is no luck in it all. I have never lost a swarm that has been cared for properly.

If people would give the same care to their bees they do to their stock, they would not lose so many. I look at my bees nearly every day in the year. That is I just go along each row of hives, and notice the entrances. Some times they need to be closed more than at others. Sometimes the wind blows straight against the entrance; then I set a board up against it to break the force of the wind. Again, a colony will show an unusual death rate with symptoms of dysentery. If this colony is not treated they will surely die before spring. Every year I have a colony or two that show

this way. I am of the opinion a colony acting like this gets dysentery because it gathers so much fruit juice from grapes, pears, apples and all kinds of fruit—bad stuff to winter on. I wait for a warm day, and take a clean hive and 2 or 3 empty combs and fill them up with good heavy syrup. Take out some from the hives that have the fewest bees on and change them to new dry and clean hives. I have never failed to bring them through O. K. Now some will say this is too much trouble. We get nothing in this world unless we work for it, and meet the requirements necessary.

E. VANDERWERKEN.

Stamford, Conn.

I have been reading in the C. B. J. at different times about swarm prevention and the benefits derived from it, but I fail to see any account of more profits than I receive from my bees, and I let them swarm at will. I will give you my experience with bees for the last three years. In the spring of 1909, I put out 30 hives of bees in the yard. The Inspector Mr. Scott came along and examined them and found that they had the European Foul Brood in a bad stage. Mr. Scott advised me what to do and taking his advice, this is what I did. I doubled up a lot of them to make them stronger, and when the clover honey flow came on I shook them out into clean hives with starters. They were then left four days and afterwards shaken again in clean hives with full sheets of foundation. I buried the old comb and honey. Some were lost through swarming out and leaving, a thing I was not expecting. I find they will do it by being disturbed so much. When I got them all settled down to work I only had nine skips left. I then sent away and obtained some Italian Queens and started them anew. They gave me that season, however, after being treated, about nine hundred lbs. of honey. In the spring of 1910, I had ten skips, spring count and they gave me 2,600 lbs of honey which I sold for \$245. In the spring of 1911, I had 24 colonies which gave me a little over 3,500 lbs. of honey selling for \$315. This spring I have thirty nine colonies all doing well, with no signs of disease since treating them about three years ago.

A. TERRILL

Wooler, Ont.

I went into winter colonies and wintered doors, some in old hives, and the other one hive each, made 12 frame supers. They were wintered in good order. They were placed in the cellar in November, and brought out in April. They were all having lost scarcely anything. In December I was sick, for I had to operate many nights. A good cellar place to winter in is not a dry one.

There are some things to be done about the winter on the point of making a fence around my apiary but the south row of hives due eastward from the door of my bee-house; a wind sweeps back along the wood house, striking and whirling the snow clouds over the hives, and piling it in the remainder of the hives that were so exposed as any, but my apiary is protected by fruit and a high board fence at the side, a shade board over the same board that I use for a board in the summer) snow and wind from the entrance which is left open. For cellar wintering 12 frame Holtermann cover on, and placing them in the cellar give them the largest cellar varied very little from 45 degrees all winter.

Wintering them was with "springing" them the present. I have un-derstand that I found queenless and none of them seen as they did two weeks hopeful.

They gathered pollen from swamp willows, and from soft maples near the house, and I hope it will be a good crop again.

The clovers have wintered and our prospects are good for clover honey—equally as good as last when we averaged



he opinion a colony  
s dysentery because  
a fruit juice from  
s and all kinds of  
winter on. I wait  
d take a clean hive  
ombs and fill them  
y syrup. Take out  
that have the fewest  
hem to new dry and  
never failed to bring  
Now some will say  
ouble. We get no-  
unless we work for  
airments necessary.  
ANDERWERKEN.

g in the C. B. J. at  
s swarm prevention  
rived from it, but I  
ount of more profits  
my bees, and I let  
I will give you my  
s for the last three  
g of 1909, I put out  
e yard. The Inspe-  
along and examined  
they had the Euro-  
a bad stage. Mr.  
hat to do and taking  
hat I did. I doubled  
make them stronger,  
honey flow came on  
nto clean hives with  
then left four days  
aken again in clean  
ets of foundation. I  
b and honey. Some  
swarming out and  
was not expecting. I  
by being disturbed so  
them all settled down  
d nine skips left. I  
and obtained some  
and started them  
ne that season, how-  
ated, about nine hun-  
ey. In the spring  
s skips, spring count  
2,600 lbs of honey  
45. In the spring of  
onies which gave me  
lbs. of honey selling  
ing I have thirty nine  
vell, with no signs of  
ng them about three

A. TERRILL

I went into winter with 120 good strong colonies and wintered 72 of them outdoors, some in old style A. I. Root Chaff hives, and the others in winter cases for one hive each, made high enough to hold 12 frame supers. The bees remain in them summer and winter. They all wintered in good order. Forty eight colonies were placed in the cellar on the 15th of November, and brought out on the 6th April. They were all alive, most of them having lost scarcely any bees at all. In December I was sorry I had put them in, for I had to open the cellar doors on many nights. A good cellar is an excellent place to winter bees in, but my cellar is not a dry one.

There are some things past finding out about the wintering of bees. I was on the point of making a high board fence around my apiary, à la Holtermann, but the south row of my Chaff hives is due eastward from the south-east corner of my bee-house; and the south-west wind sweeps back along my house and wood house, striking the bee house, whirling the snow clear from about six hives, and piling it in great drifts on the remainder of the hives. Those hives that were so exposed wintered as well as any, but my apiary is somewhat protected by fruit and maple trees and a high board fence at the north. I incline a shade board over the entrance, (the same board that I use for an alighting board in the summer) which keeps the snow and wind from blowing in at the entrance which is left open  $\frac{3}{8}$  by 8 inches. For cellar wintering I have the 12 frame Holtermann hive, leaving the cover on, and placing the wedges in to give them the largest entrance. The cellar varied very little in temperature from 45 degrees all winter.

Wintering them was easy compared with "springing" them in a spring like the present. I have united four colonies that I found queenless with four others and none of them seem quite as strong as they did two weeks ago, but I am hopeful.

They gathered pollen freely on the 15th from swamp willows, and again yesterday from soft maples near by. Today it is raining and I hope it will not turn so cold again.

The clovers have wintered well here, and our prospects are good for a crop of clover honey—equally as good this season as last when we averaged 130 lbs per

colony extracted, which is about as much as we ever got here. The flow only lasted about ten days, for hot weather set in and stopped the flow. But we had our bees, hives and surplus combs all ready and we got the honey.

ILA MICHENER.

Low Banks, Apr. 22, 1912.

**WELLINGTON COUNTY B.K.A.**

An interesting meeting for Bee-keepers was held in the village of Drayton on Monday, April 8th, in the council chamber, when some fifty or more interested ladies and gentlemen were present, with Mr. F. W. Krouse, of Guelph, president of the Wellington County Bee-keepers' Association, in the chair.

The meeting had the great pleasure of having Miss Ethel Robson, of Ilderton, address them on the subject of spring management of bees, an address which was listened to with very close attention, as it was a timely subject for all. Many questions were asked the speaker, all of which were cheerfully answered.

The second speaker was Mr. Morley Pettit, provincial apiarist at the O. A. C. The good work being done by the Government along the lines of making conditions better for the bees and bee-keepers also were touched upon splendidly by the speaker.

Demonstrations were arranged for early in May, one at the O. A. C., one at Mr. H. Angells', Elora, one at Arthur, and the fourth to be arranged for later either at Drayton or Moorefield.

The election of officers resulted as follows:—President, F. W. Krouse, Guelph; Vice President, D. Scott, Salem; Secretary-Treasurer, Chas. Ryde, Guelph. Directors—Mr. Bellamy, Bellwood; Mr. Fyfe, Harriston; Miss Spence, Metz; Mr. Foster, Elora; Mr. J. P. Young, Hallsburg; Mr. Malcolmson, Moorefield; Mr. Brandon, Drayton.

Naming Elora as the next place of meeting brought the gathering to a close.

**Printing for Bee-Keepers**Honey Labels, Letter Heads  
Bill Heads.

Write us when requiring printing of any kind.

**THE HURLEY PRINTING CO.**

Brantford, Ont.

### APIARY DEMONSTRATION IN TORONTO

Dear Sir:—The Toronto Bee keepers' Association, the York County B. K. A. and possibly the Halton County B. K. A. will hold a combined demonstration at a city apiary in Toronto on May 23rd next. Mr. Pettit will be in charge. We are hoping to have the editors of the Canadian Bee Journal and Gleanings with us, and indeed we look for a large gathering of Ontario bee keepers.

All who can attend are cordially invited to be present. Further particulars may be obtained from

Chas. E. Hopper,  
Sec. Toronto Bee-keepers' Assoc.  
90 Galley Ave. Toronto.

### BUMBLE-BEES IN HIVES

Dear Sir:—Mr. E. F. Robinson, of Victoria, B. C., describes in your issue for April, on page 126, a case of strange behavior on the part of his bees, and asks whether any other bee-keepers can suggest the cause. During the last two years I have witnessed similar occurrences in which the bees showed the same anxiety to crawl away from the alighting boards. I lost one good colony during the latter part of May, 1910, and nearly lost one last year during my absence from home. I made a point of examining my hives every day whenever possible, and on discovering a colony from which maimed bees were crawling, I found a very fine-looking, rather black bumble bee, 1½ inches long, in that hive every time. In eight hives last year I killed the same number of queen bumble bees. I have a very simple remedy. I contract all my entrances to ¼ inch in depth, that's all.

Bees on Lulu Island, B. C. have wintered well this year. I find it necessary to feed the bees, which would otherwise starve on account of shortage of stores.

H. KACER.

Eburne, B. C., Apr. 23 1912.

P. S. If I catch a bumble bee in a

hive this season, I will send it by mail for your inspection.

### SPRAYING FRUIT TREES IN FULL BLOOM

#### A WARNING

The Ontario Bee-keepers' Association desire us to draw the attention of the public to the fact that a number of members suffer from persons spraying fruit trees in full bloom, their bees being killed from the poison in the spraying mixture. This practice is prohibited by an Act of Parliament assented to in 1892, the provisions of which are as follows:—

(1)—No person in spraying or sprinkling fruit trees during the period within which such trees are in full bloom, shall use or cause to be used any mixture containing PARIS GREEN or any other poisonous substance injurious to bees. (2)—Any person contravening the provisions of this Act shall, on summary conviction thereof before a Justice of the Peace, be subject to a penalty of not less than \$1.00 or more than \$5.00, with or without costs of prosecution, and in case of a fine or a fine and costs being awarded, and of the same not being, upon conviction, forthwith paid, the Justice may commit the offender to the common gaol, there to be imprisoned for any term not exceeding thirty days, unless the fine and costs are sooner paid.

The best fruit growers consider spraying, during the period of full bloom, as a useless waste of material, and harmful to the setting of the fruit. It is universally condemned by entomologists in every part of America. The recommended formulas as sent out by both the Federal and Provincial Departments of Agriculture state distinctly to spray apple orchards with Bordeaux and Arsenites, or Lime Sulphur and Arsenate of Lead; (1)—Just as leaf buds are expanding; (2)—Just before blossoms open; (3)—Just after blossoms fall; (4)—A later spraying if required.

Bee-keepers and fruit growers are urged to co-operate in the matter and to see that the harmful practice of spraying during full bloom is stopped.

It is hoped that the law will not have to be applied, as most persons are unaware of the harm that they do themselves as well as the bee-keepers.

### Want and F

Advertisements for received at the rate of words, each additional Payments strictly amounts are too small keeping. Write copy sheet from any other side of the paper or many times ad is must reach us not each month.

### WA

**WANTED**—I would for your this either comb or extra tins. Write me. G. Ont.

**WANTED**—Your or er-colored Italian for \$7. Select virgin France & Son, Platt

**WANTED**—A good with tools, to let Also want to buy son Jacob Alpaugh, Galt.

**WANTED**—To buy. I Bee-keepers' supply the A. I. Root Co.'s list F. W. Bell, 4 Cherrier

**WANTED**—Represent locality to mail ch Grocery Mail Order spare time will cash Any one can do the nished free. Dominion sol. Ont.

**HONEY WANTED**—W expense of purchas uncertainty of market tracted honey. Write to have a honey cro bank. Foster & Ho Brantford, Ont.

### FOR S

**FOR SALE**—25 colonies A good locality here George Ott, Arkona, O

**FOR SALE**—Queens and ages. A good strain o for honey, now ready. anted. W. D. Achord, U.S.A.

**BEEES FOR SALE**—For allians or their crosses. stroth hives. Good colony disease. Apply to Steph P.O., Ont.

**GOLDEN QUEEN BEE** at \$1.00 each; six for has been favorably repor brood localities; also for Case, Port Orange, Fla.,



## GOLDEN QUEENS and 3-Band Italians



Mated in separate yards five miles distant. Bred from Improved Long-tongued and Red Clover stock—the best honey-gatherers that money can buy. Reared by Doolittle or Miller plan.

Untested Queens, to be ready May 1st, 1.75 cents; 12 for \$7.50; 50 for \$25.00; in lots 100 to 500, \$45.00 per 100.

Tested Queens, ready May 15th—one for \$1.50; six, \$8.50. No bee disease in this country. Safe arrival guaranteed.

**J. B. ALEXANDER, Cato, Ark.**

### APIARY FOR SALE The Home of the Late David Chalmers

Consisting of one half acre of land, good dwelling house and stable thereon, near Poole, and his extensive apiary, consisting of 75 colonies of bees; also honey and wax extracting apparatus. The whole will be sold by public auction on the premises on Wednesday, the 29th of May next, commencing at 1.30 p.m.

**RALPH D. CHALMERS,**  
Administrator.

### BEE-KEEPERS, AWAKE!

#### BEES AND SUPPLIES FOR SALE

One of the Finest Outfits in Canada.

DO you realize that it is almost impossible to-day to buy a choice outfit of bees and supplies ready for business in Ontario. Do you realize, further, that you can pay a good price for this property and with proper care clear from 50 to 75 per cent, annually on your investment? This is your opportunity. Seize it now. Don't wait. Write to-day. Outfit consists of 200 colonies of bees, 240 extracting supers, 120 comb honey supers, 200 queen-excluders, 100 four-colony hive stands, 45 four-colony wintering cases, 2 choice honey houses in panels, 2 foundation mills, reversible extractor, wax press, capping melter, etc., etc. Good location; bees do not have to be moved. Wish to sell at once, giving possession August 1st. If not sold, might run on shares for term of years with reliable bee-keeper. Owing to health of my family, wish to return to California in fall. Address A. Laing, Lynn Valley, Ont.

### Long Tongued Red Clover Italian Queens.

Northern Bred Queens, bred for honey gathering and good wintering qualities. Will have a limited number for sale this season. These are unquestionably as good Queens as can be procured anywhere. **\$1.25 each, selects up to \$3.00.**

**F. A. Metcalfe**  
—BOX 75—  
**FENELON FALLS, ONT.**



### Carniolans Italians and Banats

The Simon Pure Article are now ready to mail at the following prices

Untested  
Each 75c. Per doz. \$8.  
Tested  
Each \$1.25. Per doz. \$12

MY CIRCULAR FREE

**GRANT ANDERSON**  
San Benito, Texas

### Carniolans Breed Best During Spring Months

of any race of bees. This is of immense importance. Bees must be gotten strong early. Success in Honey Production can come only by having colonies strong when harvest opens. Ask for "Superiority of the Carniolan Bee," giving full description, prices of queens, etc. IT'S FREE.

**ALBERT G. HANN**  
Scientific Queen Breeder  
PITTS TOWN, N.J.

### QUEENS Italian Type Carniolans

Nuclei and bees by the pound a specialty. FIVE SEPARATE MATING YARDS. Satisfaction guaranteed or money refunded. 20 years' experience. Write for circular. **F. M. KEITH, 83½ Florence Street Worcester, Mass.**

## SUCCESS

IS

## Go

WI

### GOLDEN

Untested

Tested

Nuclei with

.. ..

.. ..

The drones used in Queens which is a nu  
For good Queens  
We guarantee safe ar  
be mailed to you for 1  
The above Queens

R. F. D. No. 3

## Bee-Keep

Let us hear from y  
Requirements for

Our have been  
Improved Eastern C  
Model They tak  
Hives Langstroth  
fitted with combined b  
ing board, galvanized  
simple, practical, mode

A sample hive, read  
complete with sections a  
starter throughout for \$2

Fine are one of  
Italian Reared from  
Queens stock, and c  
satisfaction.

For May delivery,  
Italian Queens, \$1.25, or 6 I  
Queens in May, \$1.50, or  
Breeding Queens at \$3.00

A full line of Bee Supp  
prices, Comb Foundation  
line Bingham Smokers, Pc  
etc., etc. Catalogue

Highest Price Paid

F. W. JONES, BED



**ed Red Clover Queens.**

ed Queens, bred for and good wintering have a limited num-ber season. These are as good Queens as anywhere. \$1.25 to \$3.00.

**Metcalf**

OX 75—FALLS, ONT.

**Carniolans Italians and Banats**

he Simon Pure Article re now ready to mail at the following prices

Untested each 75c. Per doz. \$8.

Tested each \$1.25. Per doz. \$12

ULAR FREE

**ANDERSON**

San Benito, Texas

**Months**

s. This is of immense must be gotten strong Honey Production can g colonies strong when for "Superiority of the living full description. (c. IT'S FREE.

**G. HANN**

Queen Breeder TOWN, N.J.

**Italian Type Carniolans**

the pound a specialty. E MATING YARDS. ted or money refunded. ce. Write for circular. 83 1/2 Florence Street Worcester, Mass.

**THE SECRET OF SUCCESS IN BEE KEEPING IS TO KEEP YOUR COLONY STRONG,**

**TO DO THIS YOU MUST HAVE**

**Good Laying Queens**

Which we Guarantee at the following Prices:

GOLDEN	3 BAND ITALIAN	CARNIOLAN
Untested—1 for \$1.00.	6 for \$5.40.	12 for \$9.60.
Tested —1 for \$1.50.	6 for \$8.40	12 for \$15.60.
Nuclei with Untested Queen—1 Frame \$2.50.	2 Frame \$3.50.	Six 1 Frame \$15.00.
.. .. Tested ..	1 Frame \$3.00.	Six 2 Frame \$20.40.
.. ..	2 Frame \$4.00.	Six 1 Frame \$17.40.
		Six 2 Frame \$23.40.

The drones used in our Apiary for Mating purpose are reared from the very best selected Queens which is as necessary as the selecting of a good Queen for Queen rearing.

For good Queens and quick service you can not do better than place your order with us. We guarantee safe arrival and satisfaction. Directions for building up weak Colonies will be mailed to you for 10 cents.

The above Queens are all reared in separate yards.

**W. J. LITTLEFIELD**

R. F. D. No. 3

LITTLE ROCK, ARK.

**Bee-Keepers !**

Let us hear from you as to your Requirements for the Season.

Our have been largely used in Improved Eastern Canada for 20 years Model They take nine Standard Hives Langstroth frames, and are fitted with combined bottom and alighting board, galvanized iron covers. A simple, practical, moderate priced hive.

A sample hive, ready for the bees and complete with sections and with foundation starter throughout for \$2.20. In the flat \$1.60

Fine are one of our specialties. Italian Reared from a hardy, vigorous Queens stock, and certain to give satisfaction.

For May delivery, guaranteed pure Italian Queens, \$1.25, or 6 for \$7.00. Selected Queens in May, \$1.50, or 6 for \$8.00. Best Breeding Queens at \$3.00 each.

A full line of Bee Supplies at reasonable prices. Comb Foundation, Sections, genuine Bingham Smokers, Porter Bee Escapes, etc., etc. Catalogue for the asking.

Highest Price Paid for Beeswax.

F. W. JONES, BEDFORD, QUE.

**MOTT'S ITALIAN BEES**  
Strain of also Carniolans

Untested, \$1.00; \$9.00 per doz. Sel. tested \$1.50. Descriptive 10 page list free. Bees by pound and half pound nuclei. Plans "How to Introduce Queens," 15 cts. "How to Increase," 15 cts, or both 25 cts.

E. E. MOTT, Glenwood, Mich., U. S. A.

**QUEENS QUEENS**

**Golden and Leather Colored Italians**

We are receiving orders now for early delivery. Early cash order discounts. Safe delivery at your Post Office guaranteed.

THE HAM & NOTT CO., LTD.  
Brantford, - Ontario

**Doolittle & Clark**

Have some fine Italian Breeding Queens, which will be sent out any time after May 1. These queens are mated to selected drones.

Prices \$2.50, \$5.00 and \$10.00

Address: MARIETTA, Onondaga Co., N. Y.

**CARNIOLAN ALPINE QUEENS****Gray Workers. Select Tested Queens,**

March, April, May \$5.00; June, July, August \$3.50; **Select Unested**, June, July, August, \$2.00.

Shipped to all parts of the world, postage free. Safe arrival guaranteed. International money order with every order. Dead queens replaced if returned in 24 hours after arrival. References respecting financial and commercial responsibility of the undersigned Association can be had at every Imperial and Royal Austro-Hungarian Consulate in the U. S. and Canada. Write for our booklet. Orders for nuclei and hives cannot be filled until everything concerning this line of business is properly arranged. Remit money order and write English to **The Imperial-Royal Agricultural Association, Ljubljana, Carniola (Krain), Austria.**

**DOOLITTLE'S**

**"Scientific Queen Rearing"**

126 pages. Bound in cloth, \$1.00  
Bound in leatherette, 75c.

**Money in Poultry**

If you know how to get it out. We show the way. On our regular staff are the world's most famous poultry experts. Amongst them Prof. A. G. Gilbert, Dominion Experimental Farm, Ottawa; Prof. W. R. Graham, Ontario Agricultural College, Guelph; Rev. J. N. Williams, B.A., England; H. S. Babcock, Providence, R. I. Dozens of other well known poultry men and women write for us, telling of their experience. 48 to 72 pages monthly, full of interesting and instructive reading matter and high class engravings. All poultry—nothing but poultry. Mailed anywhere in Canada, one full year for 50c. or three years for \$1.00. 30th continuous year of publication. Address

**CANADIAN POULTRY REVIEW,**  
The People's Popular Poultry Paper.

**184 Adelaide St. West, Toronto, Ont.**  
Standards and other books free for a little work

**A Profit of Profit**

There is plenty of money in chickens if your effort is intelligently directed. Learn the right way to do things by subscribing for

**PROFITABLE POULTRY**

Milton, Wis.

For a limited time only 25 cents per year.

# One Magazine and One Newspaper

are indispensable to every person of intelligence.

The "one magazine" is **Current Literature**, because it alone sweeps the whole field of human thought and action in both hemispheres.

It contains a monthly review of the world's news; quotations from and comments on the press of the world; numerous graphic cartoons and other illustrations; photographs and biographic sketches of the conspicuous personalities of the month; the most recent advances in science and discovery; the noteworthy events in religion, literature and art; critical reviews of the best fiction, dramatic and musical works; a page of the best humor and a condensation of the leading play of the month.

It gathers impartially from every field of human thought and activity those facts which are best worth knowing and gives the reader a clear, well-defined and illuminating view of what the whole world is doing.

<b>CURRENT LITERATURE</b>	Both for
for one year \$3.00	
<b>Canadian Bee Journal</b>	\$3.50
for one year \$1.00	

**Gas**

We  
date  
and

1 1/2 to 50

Power Spraying  
Outfits.

Grain Grinders

Galvanized  
Steel and Wood  
Storage Tanks.

**Goold****Brand**

**of Profit**

nty of money in  
your effort is  
directed. Learn  
ay to do things  
ng for

**LE POULTRY**  
on, Wis.

time only 25 cents  
r year.

**Magazine**  
and  
**Wspaper**

ensible to every  
f intelligence.  
zine" is Current Liter-  
it alone sweeps the  
man thought and so  
ispheres.

monthly review of the  
quotations from and  
e press of the world;  
ic cartoons and other  
otographs and bio-  
s of the conspicuous  
the month; the most  
in science and discov-  
thy events in religion,  
rt; critical reviews of  
dramatic and musical  
f the best humor and  
f the leading play of

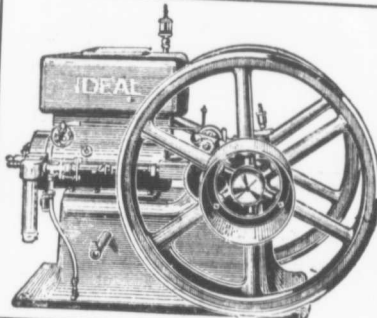
artially from every  
thought and activity  
are best worth know-  
e reader a clear, well-  
minating view of what  
is doing.

RATURE } Both for  
\$3.00 }  
Jurnal } \$3.50  
\$1.00 }

# Gasoline Engines

We have the largest and most up-to-date Gasoline Engine Factory in Canada and build the most complete line.

**1 1/2 to 50 h.p. Stationary, Portable, Traction**

<p>Power Spraying Outfits.</p>		<p>Windmills Gal- vanized after Completion</p>
<p>Grain Grinders  Galvanized Steel and Wood Storage Tanks.</p>		<p>Towers girted every 5 ft. and double braced</p>

Concrete  
Mixers

**Pumps, Water Boxes, Etc.**

WRITE FOR CATALOGUES

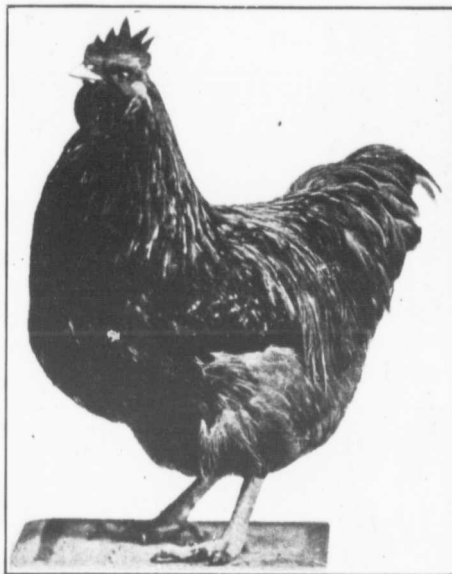
**Goold, Shapley & Muir Co**  
Limited

**Brantford, Winnipeg, Calgary,  
Saskatoon**

# Clark's Famous Buff Orpingtons

AS

## Money-Makers



1st New York Cockerel

Every Bee Keeper should keep Poultry.

My Buff Orpingtons will make you money, not only as layers, but in Show Stock Sales.

My Strain of Buff Orpingtons as Layers:

For the first half year of the International Egg Laying Contest, under the joint auspices of the British Columbia Poultry Association, Vancouver Board, and the Provincial Government, held at Victoria, B. C., with 40 pens competing, con-

tributed by breeders representing different parts of the world, my strain, pen 39, owned by C. W. Robbins, of Chilliwack, B.C., are 2nd place, leading in all utility varieties, only one pen, White Leghorns, ahead by a few eggs.

In March report the management says: Pen 39 have drawn away from pens succeeding. Their performance during the month has been the more praiseworthy owing to the fact that three broody hens had to be removed. These were broken up easily and all were returned to their pens in three days and at work again.

I have been breeding Buff Orpingtons for 15 years, and have won the highest honor at shows in the United States and Canada. Have 12 breeding pens; eggs and stock for sale in season. Eggs \$1.00 to \$10.00 per 15; incubator eggs \$6.00 per 100. Write for free illustrated Catalogue. A post card will bring it.

J. W. CLARK,  
Cainsville, Ont.

When writing mention Bee Journal.