

The Canadian Bee Journal

Devoted to the Interests of Bee-Keepers

Vol. 18, No. 4.

April 1910

\$1.00 Per Annum

THE melting of combs can be done either by the heat of the sun's rays, or with boiling water, or by steam.

But only rain or river water is suitable for the purpose, and no other should be used, seeing that well-water, if hard, is liable to cause the wax to turn brown in color. Lime in water also unites with the fatty acid of wax, saponifying it, so that, after cooling, wax rendered with hard water has on the under side a spongy, greyish mass. When rain or river water is not available, vinegar or a small quantity of sulphuric acid should be put into the water, just sufficient to neutralize the lime. Copper vessels are preferable, but if not available, iron ones can be used, but they should be first heated and rubbed with a piece of mutton fat, which not only prevents the acid from attacking the iron, but the latter will not afterwards discolor the wax. It should also be noted that the nearer to the melting-point at which all melting operations are performed the finer will be the product, a high temperature destroying both the color and aroma of the wax produced.--T. W. Cowan's "Wax Craft."

PUBLISHED BY

The HURLEY PRINTING CO.
BRANTFORD, CANADA

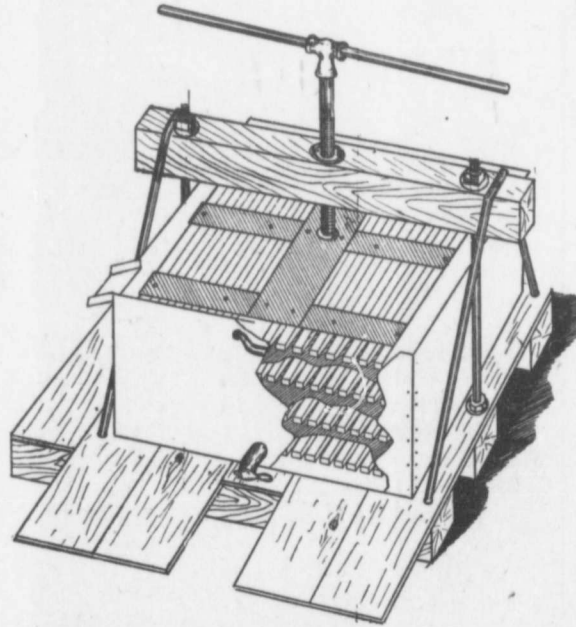
THE LIBRARY, UNIVERSITY OF GUELPH

THAT PILE OF OLD COMBS

THE Honey Season over, and the bees snugly packed away for the Winter, the Bee-keeper will be able to turn his attention to the accumulation of old and broken combs in the honey house and other places. To the careful Apiarist this accumulation represents so much extra cash over and above his honey crop, and will be treated accordingly. He uses a Wax Press, of course—the latest and best.

The old systems of boiling and steaming did not extract much more than half the wax the comb contained, the steam press was better but still there was sufficient left in the refuse to make it excellent but expensive fire kindling. The latest and best is that of pressing under water, which separates and washes out the wax, practically removing every particle of the valuable.

The Sibbald Wax Press, invented by Mr. H. G. Sibbald, ex-President of the O.B.K.A., embodies this principle of pressing under water. It is a strong machine with a powerful screw, and nothing about it easily broken or apt to get out of order, and the price within the reach of all—



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Devoted to the Interests of Beekeepers

JAS. J. HURLEY

Published monthly
The HURLEY PRESS
Brantford, Ont.

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Brantford, Ont.

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The HURLEY PRINTING CO.,
Brantford, Ont.

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Organized 1880
Incorporated March, 1886

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Bee-keepers desiring the services of the inspector of apiaries should address their requests to Hon. James S. Duff, Minister of Agriculture, Toronto, giving nearest railway station and distance of apiary from station.

Place of Meeting: Toronto. Hall and dates to be selected by Executive.

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To Old and New Subscribers: Our Clubbing List for 1910 includes the following Remarkable Offers

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News (Daily) Toronto	For	2 20
The Horseman (Chicago)	For	3 50

Mail and Empire for \$1.50

The Canadian Bee Journal

Brantford

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Canada

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JAS. J.

Vol. 18, No. 4.

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April, 1910

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Journal
Canada

The Canadian Bee Journal

PUBLISHED MONTHLY

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

Vol. 18, No. 4.

APRIL, 1910

Whole No. 542

Failure to do needful things just at this time will injuriously effect the surplus later on.

* * *

Wintering reports are very satisfactory. Mr. Byer reports every colony alive in four yards.

* * *

Keep your eye on the man with an orchard. If he needs pointers on spraying give them to him gently, emphasizing his interest rather than your own.

* * *

Mr. Ross writes interestingly in another column on hive covers. He has very efficiently summarized the requirements of a cover. We have always felt that our covers do not set down over the hives deep enough. Three or four inches is none too deep, especially when extra protection is needed on top of the frames in early spring.

* * *

We have had the pleasure of adding to our exchange list "the Fruit Magazine," published at Vancouver, B.C. Maxwell Smith is its editor. It is a new venture in the field of journalism, the sixth issue being now on our desk. It is a beautifully-printed and well-edited magazine, and should be in the hands of every fruit man. The C. B. J. wishes it every success.

* * *

We examined all our hives in our home yard on Good Friday, and found all in good condition. Brood was found in all stages. Some was just hatching out. In some hives the queen had ceased laying, owing to an entire absence of pollen. They had used up all they had.

However, they were gathering it at that time in good quantities, and continued doing so every day up to March 30th. Even if we do have some bad weather during April, this should give them a good start.

* * *

We feel sure all will be pleased to read Mr. Haberer's letter on honey pails in this issue. Mr. Haberer is a good honest German, who wishes to do right to everybody. He wishes to be fair and honest with the buyer of his honey, and at the same time he is willing to co-operate with his associates in his association. If it is to be gross weight he is willing to conform, but he desires that his customer should know what he is buying. His sale prices show that he made an effort to adhere to the rates quoted by the honey crop committee.

* * *

Mr. Mireault has asked us to state the means by which a Canadian bee-keeper may join the National U. S. Association. We have put the question to Mr. N. E. France, so as to leave no doubt about the matter. He has kindly replied as follows:

"Any Canadian bee-keeper by paying \$1 annual dues to the secretary of the Ontario Bee-keepers' Association, or sending the same to the Canadian Bee Journal, or giving it to Wm. McEvoy, will become an annual paid-up member of the Canadian Beekeepers' Association and the National Bee-keepers' Association. He will receive from the National a receipt for dues, button, copy of the last annual report and a free copy of a book 'Bee-Keepers' Legal Rights.' I suppose also that dues would be received by any of the Canadian Bee Inspectors."

THE LIBRARY, UNIVERSITY OF TORONTO

All our old weather prophecies, signs and superstitions, will have to be laid aside hereafter; what "they say" no longer holds good. March came in like a lamb, continued lamb-like, and went out like a lamb—in short we had ideal spring weather throughout the entire month. The snow melted away gradually, no serious flooding was done, and there has been no subsequent frosts to "heave" the wheat or clover. Although we may yet have some unpleasant weather, we do not hesitate to urge readers to make adequate preparations for a bumper crop this coming season. All the indications point that way.

* * *

Many old members of the Ontario Bee-Keepers' Association will regret to learn that W. J. Brown, of L'Orignal, has moved to California. He was for a long time a very active and greatly esteemed member of the Association, and was one of its past presidents. Failing health had made it necessary that he seek a change of residence, so he chose the sunny climes of California. He writes us hopefully and optimistically, and says he is enjoying the beautiful climate among the fruit and flowers. He is located midway between the cities of Los Angeles and Long Beach on the Pacific Ocean. A twenty-minute run on the car either way brings him to the city. He has attended some of the bee conventions, and has met many Canadians. The C.B.J. joins with his many friends in wishing him every success.

* * *

Mr. Almond Dulmage has asked us to state how far apart should two strains of bees be kept to keep them from mating. This is an old and much debated question and various opinions have been given upon it. Many long flights are credited to bees. We will not attempt to quote the different authorities, but will take the responsibility of saying that two miles should be ample distance apart. If anyone feels at liberty to dispute the dis-

tance we will be glad to hear from him. It is true that worker bees may go a great distance, but ordinarily we do not believe that they will go much over a straight mile from the yard. But whether this is true or not has very little bearing on the subject. The real question is, how far away do drones and queen go when flying about mating? We venture to say that drones and queens fly but a very little distance away from the home yard. If this be true, two miles apart will be quite ample.

* * *

N. E. France, the indefatigable manager of the National Association of the United States, has sent out a circular letter to all the members advising them that if they will put upon the market a good, well-ripened honey, they will have a market, the demands of which it will be impossible to supply. We quote what he says, and have no hesitation in giving it our entire approval:

"I have devoted much time to why so many complain of no market for honey. I have asked fifteen wholesale dealers, why honey sales were slow when other foods were ready sale at high prices. Also asked bee-keepers who buy tons of honey besides their own for bottling and also asked many who used to be extensive honey eaters why they had dropped it from their daily food. Almost every one replies with this answer:

Good well ripened honey, sealed by the bees and matured in the hives is always in demand at fair prices. But this thin stuff extracted before it is ready—before it is well-ripened—that will sour—that never has either flavor or body—that is what spoils market for honey. Through Information Bureau I had many offers to sell sent me. Several such lots I found sales for and later got word from purchasers the thin honey had no body or flavor, except souring.

If every National Bee-Keepers Association member will promise me **all his honey will be ripe, capped over honey**, before it leaves his hives he will have a market he never can supply.

Our Association never can brand its members honey until this is done."

We visited our "out" of Mr. John Simmington March 25, and assisted in removing the bees from the cellar. It was about eight o'clock on a bright day. About twenty-five hives and three of us, (Mr. Harold, assisting), did fifteen or twenty minutes work but very little. I pronounced that every hive had some that every hive and some had started to fly in the cellar. The bees were in the cellar last fall. The work of Mr. Simmington was simplicity itself. The bees were not removed. The frames were taken out and put on the ground. Small strips were put under the frames, and a sack thrown over the top. This gave a bee-space under the sack. The top of each other six hives were covered with a sack over the top, with a cover resting on the top. This gave the bees ample space before removing the bees. We took newspaper removed the frames and closed all the entrances to the hives up and carried them to their stand, pulled the top off. The trick was done. The bees, no loss, no stinging, cool and moonlight, and we knew they were transferring we looked them over the early east sun shining through the frames. Everything was peaceful. An old woman cured and while Mr. Simmington the writer brushed the frames clean. The bees hived while you could say "Our good host then in the morning drive to market back to business early in the afternoon at home. Mr. Simmington that they have been gathering pollen every day. The bees must remain during the winter naked and bare on the

to hear from him. Bees may go a great way but we do not believe in going over a straight line. But whether this is a little bearing on the question is, how far they can go when flying. I venture to say that they can go a very little way from the home yard. If they are apart will be quite

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We visited our "out yard" at the home of Mr. John Simmington, Burtch, Friday, March 25, and assisted in removing the bees from the cellar. The work was done about eight o'clock on Friday evening. About twenty-five hives were removed, and three of us, (Mr. Simmington's son Harold, assisting), did the work in about fifteen or twenty minutes, disturbing the bees but very little. We are glad to announce that every hive came through, and some had started brood-rearing, while in the cellar. The placing of the bees in the cellar last fall was entirely the work of Mr. Simmington, and his method was simplicity itself. The bottom boards were not removed. The covers were taken off. Small strips were laid across the frames, and a sack thrown over the hive. This gave a bee-space over the frames under the sack. The hives were piled on top of each other six high, the top one having a sack over the bees like the others, with a cover resting on top. This gave the bees ample ventilation. Just before removing the bees from the cellar we took newspaper roughly crumpled up and closed all the entrances. Then picked the hives up and carried them outside to their stand, pulled the paper away, and the trick was done. No fuss, no excited bees, no loss, no stinging. The night was cool and moonlight, and the bees scarcely knew they were transferred. Next morning we looked them over at 7 o'clock with the early east sun shining into all the entrances. Everything was quiet and peaceful. An old wing was then procured and while Mr. S. lifted up the hive, the writer brushed every bottom board clean. The bees housecleaning done while you could say "Jack Robertson." Our good host then gave us an early morning drive to market, and we were back to business earlier than if we had been at home. Mr. S. has since reported that they have been doing splendidly, gathering pollen every day. Now, these bees must remain during April and May naked and bare on their summer stands,

enduring all the cold and wet weather that may come. What an advantage it would be to them to be in packing cases dry and warm! What an aid it would be to early brood rearing! Here is the one weak spot in cellar wintering in our climate. Otherwise the wintering and replacing on their summer stands was most successful. We hope to have them packed outside next winter.

* * *

In reference to the subject of the weight of honey pails we are pleased to give our readers the opinion of Editor Hutchinson, of The Bee-Keepers' Review:

"The first year that we produced extracted honey, in large quantities, we weighed in the 60-pound tin cans, putting in about 58 pounds of honey. We supposed that was the usual practice; but we received so many complaints, that the time spent in correspondence in trying to straighten out matters was worth about as much as we had gained. Since then we have put in 60 pounds of honey. I think it really makes little difference which practice is followed. In any event the producer must get his pay for the package. If he weighs it in he gets his pay for it. If he puts in a certain number of pounds net weight, then he must charge more per pound for the contents. Which practice shall prevail depends somewhat upon circumstances. I doubt if any product is sold in large quantities, at wholesale, and the package weighed in. No dealer in honey would buy a barrel of honey, and weigh in and pay for 50 pounds of barrel. The same way with a barrel of sugar, lard, etc. But when it comes to putting up these commodities for the retail trade, I think the usual practice is to weigh in the package. Take the breakfast foods for instance, I believe the packages are weighed in. The packages must be paid for, and it is likely that this practice secures the object with the least friction. It is not a question of honesty or dishonesty, unless there is an attempt to lead the purchaser to believe that he is getting net weight, when it is gross. It is largely a matter of what is the usual practice; but it ought to be made as uniform as possible. If it is understood that honey by wholesale is to be net weight, and retail packages are to be weighed in, it might simplify matters somewhat."

CHALMERS' OBSERVATIONS.**Hibernating.**

It is an old and partly true saying that "people become like those they live amongst"; and, don't you think, Mr. Editor that such is the case with this correspondent, seeing his pen has been silent for considerable time? Well, like the bees, I have been spending the winter in quiet, but got partly wakened up on March 5th, when an ideal bee-day struck us, which allowed the bees their first 1910 flight, and a grand day it was for that very important occasion; but let me tell you that when the March number of C. B. J. arrived, I got completely aroused from my slumbers when I read that contribution from Mr. Orel Hershiser on "Making and Clarifying Beeswax."

Beeswax.

I was delighted to see and read that article written from Kenmore, N. Y., by Orel L. Hershiser in March Canadian Bee Journal. I fancy I know considerable about rendering wax, but know that I don't know it all, and now since we are favored with some of Mr. Hershiser's views on this vexed question, I am in hopes that we will "ken" more about it before we get through with this man from Kenmore.

I am, as he says in **need of and seeking for** information on this important subject." Some points we agree on whilst on others we differ, the greatest point of difference being in the efficacy of steam or hot water as applied in extracting the wax from the slumgum. Mr. H. says on page 75, first column about half way down. "It seems to be almost universally conceded now that the steam press, when economically operated, will leave in the slumgum a large percentage of wax that is easily obtainable with the hot water press," etc. I readily admit that **all** the wax cannot be got out of the slumgum by the use of steam and pressure, for I can

detect small specks therein, but I would not be afraid to exchange slumgum with Mr. Hershiser after being treated by each of our pet systems and undertake to take as much wax out of his as he would out of mine. Now, don't forget that I am admitting that there is still wax left after my process so much so that the slumgum makes fairly good fuel, and, yet, I take fully 50 per cent in weight out of a given quantity of old comb.

We must not condemn the cold press from the fact that it has been a stepping stone from 10 press at all to where we are now. Some 12 years ago I called on Mr. F. A. Gemmil (then of Stratford), to get advice about a press, and he very kindly gave me all the information he saw fit; the consequence was I went home and constructed a press and soon had it at work in the kitchen. The box into which the pressed wax was to drop and be led into a container, was only about 4 inches deep, consequently when the press had three or four layers of cheeses of slumgum in for pressing, some of them were considerably above said box, and just fancy as the pressure would be increased from time to time there was "trouble in the camp" caused through the wax cooling on the canvas which contained the slumgum, then little apertures would be forced open and what happened? Well the melted wax would shoot here and there all over the room as if squirted from as many syringes. This I saw could be remedied by using a deeper box, but a deeper box wouldn't prevent the wax from cooling on the canvas, so I set too in the winter of 1905-6 to construct a box in which to use either steam or hot water while pressing; when working it out I had occasion to write Mr. G. A. Deadman, of Brussels, Ont., and incidentally told him that I was getting up a wax press. In reply Mr. D. advised me to "go slow as there was a new press coming out. This I afterwards learned was the Hershiser press. I made Mr. Wm. Mc-

Evoy a visit that winter and he was just home from the Convention which he attended in Chicago, and at which I saw his paper on "wax extracting their faults," in which he described the water system of separating the slumgum. Mr. McEvoy caught the idea correct that when the press there was a contrivance to stir up the substance and understand now why Mr. Hershiser's writings on it depend on the hot water again soaking the slumgum to release the pressure. It is all in Mr. E's explanation imagine that slumgum is once having a little pressure.

As stated above I had a box in which either steam or hot water could be used, and do admit that it is not so good as are, as yet, so my plan can, however, make wax with steam.

My press is probably not yet put on the market, and its workings and Mr. Hershiser will tell us more about its nature. C. B. J. how he

To begin with I put a power boiler as a cost-effective way to generate steam for rendering wax from hives, frames, etc., which would be efficient; could heat water in a spring if necessary, and give a peace "brose."

From said boiler pipes lead to five different points. The wax keepers I don't boil with steam throughout in each. I have a large tin box 29 inches deep, in which are four racks. Those racks are cut out of the heaviest tin, 20 inches square with a high, said railing forming

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e Mr. Wm. Mc-

Evoy a visit that winter, Christmas week, and he was just home from the National Convention which had been held in Chicago, and at which Mr. Hershiser gave a paper on "wax extracting methods and their faults," in which he gave his hot water system of separating the wax from the slumgum. Mr. McEvoy hadn't caught the idea correctly as he told me that when the press was slackened there was a contrivance he thought to stir up the substance being pressed, but I understand now when I see Mr. Hershiser's writings on it that he merely depends on the hot water rushing in and again soaking the slumgum when he releases the pressure. This I am afraid is all in Mr. E's. eye, as I cannot imagine that slumgum is of that nature after once having a little pressure on it.

As stated above I had a press constructed in which either steam or hot water can be used, and I admit that neither system are, as yet, in my mind, complete. I can, however, make the greatest success with steam.

My press is probably too expensive to be put on the market, but will describe it and its workings and I hope Mr. Hershiser will tell us more fully in some future C. B. J. how he operates his.

To begin with I purchased a 2-horse power boiler at a cost of \$15.00 to generate steam for rendering wax, steaming hives, frames, etc., when deemed expedient; could heat water too for the bees in spring if necessary, and also make peace "brose."

From said boiler pipes are branched to five different points. Unlike other beekeepers I don't boil my old comb, but use steam throughout in extracting the wax. I have a large tin box, 21 inches square and 29 inches deep, in which are placed four racks. Those racks are constructed out of the heaviest tin, the bottoms being 20 inches square with a railing 7 inches high, said railing forming a box 19 inches

square. On the bottom of this rack there are five strips of wood $\frac{1}{2}$ inch square by $18\frac{1}{2}$ inches long, evenly spaced and across them the whole bottom covered with strips of similar dimensions, nailed on to the five bottom ones, say $\frac{3}{8}$ of an inch apart. This is to allow a free access of steam all around the wax or comb being melted. This, of course, wants to be nailed together somewhere else than on the tin, for fear of abusing the bottom rack. When this section of strips is placed on bottom of rack there is a coarse canvas spread over and tucked down in nicely to receive all the chopped up comb that it will hold. If there is sufficient material (which means 75 or 80 lbs), all four are filled; the first one is placed in steam box on these strips of wood $\frac{1}{2}$ inch thick, any width, and say 19 inches long; the second, third and fourth set on the one below. It is well to pour about two quarts of boiling water down on inside edge of steam box to fill up the bottom a little so that the wax will run out as soon as melted. The box is now covered with a double canvas, and a tin lid, which is weighted a little to keep it down and prevent as much as possible the escape of steam. I might just say that the outlet is merely a tin tube about one inch in diameter, and in this there is a wooden plug used with a groove on the underside to allow the wax to escape. When the container is full and being replaced this plug is taken out and a round plug used instead to hold the melted wax until an empty container is placed. The steam may or may not be shut off during the change, just as the operator sees fit. The receptacle into which the wax runs sits in a round tin, into which steam is admitted to keep the wax melted until the vessel is full enough for replacing, but before removing the steam **must** be shut off or your fingers will get scalded.

The steaming of this old comb goes on for some time when the steam is shut off,

the cover of steaming box removed and the stuff in each rack stirred up a little, when it is again covered up and set to steam. When we consider it steamed enough it is put to press; a press arranged about the same as the Hatch-Gemmil press, but in a tin box about 16 inches square and its depth as great as its width. In this either steam or hot water or both can be used to keep the mass warm. The interior is arranged by placing a series of wooden strips in the bottom (a la Gemmil), take the canvas containing the steamed slumgum by the four corners, lift from the rack in which it was steamed and place in the strips on bottom of press box, fold the canvas nicely over slumgum, then place in this a heavy plate of tin 14 inches square to run the wax from the cheese above off the one below; then lay a section of strips on this tin, bring on your next canvas of slumgum, and so on until all four are placed when it is covered with a fairly well fitted follower to confine the steaming; steam is then admitted and the mass put to press. The pressure, as Mr. Hershiser advises, must be brought on gradually. Have never tried intermittent pressing, only when using hot water, but it might help some as steam penetrates where hot water won't.

I use heavy springs, but unlike Mr. H. they are used above instead of below; got the idea through having used springs in pressing dairy cheese.

Now, we have tried boiling water in pressing slumgum, but cannot make a success of it, and the steaming arrangement is not all I would like it to be; but we have no danger of the melting wax boiling over on the stove; we have no dirty bailing of the melted comb from the boiler into a strainer; we have no great body of water to make provision for, the condensed steam making just about the necessary amount. We have tried hot water with a breath of steam, keeping it bubbling, but the wax got scorched. Our

wax is strained through the canvas it is melted in, as the steaming goes on. Both steam and press incline forward, so that the wax will flow to the front.

Mr. Hershiser says in his article, page 77, first column, that "best results are obtained by cooling the wax in a deep vessel." I differ with Mr. H. on that point; as yet I have found nothing better for caking wax than what we call "shilling crocks" and each cake should run from four to six pounds. The wax frees itself of the crocks every time, which it won't do in tin pails, and makes beautiful solid cakes.

Mr. John Newton, of Thamesford, has bought wax from me, has also made comb foundation for me from my own wax, and I would like him to tell us in the May C. B. J. how he finds my wax in comparison with others.

I have rendered both slumgum and old comb for Mr. G. A. Deadman, of Brussels, and would like him to tell the readers of the C. B. J. whether he thinks we can produce yellow wax from slumgum and old comb or not, and whether he considers there is much wax left in the slumgum after we are through with it. By the way it was Mr. Deadman who had the honor of turning on the first steam on this press four years past in February.

Mr. Hershiser says, page 73: "Some say, don't have dirty wax that needs the use of acids." I am one of those who say that Mr. H. I'll take any old comb or any old slumgum and produce fine yellow wax that needs no further cleaning; merely render it by the above system. Of course you know that bees themselves cannot produce as white wax from dark honey as from light.

One great annoyance to me, and something I cannot understand is in rendering it the second time, that some of the cakes have a spongy wax on the bottom. I suppose it is wax abused by steaming as in

rendering the second time to five pounds on the top that cannot be considered of sediment from the first (one melting). However, try and get along with special straining, when melted, as the cakes are taken from the bottom with the one rendered.

In caking, the wax should be allowed to get to cold so that sediment can be easily removed and better if the wax is skimmed off.

We never find anything that needs skimming off; quite a few air bubbles we blow to the side, and then the surface is clean, smooth and free from any scum or froth on the top of the cake, scraped away as scraping off the all O. K.

Hoping Mr. Hershiser will be the means of bringing out some of the very best ideas.

Poole, April 8th, 1910

HIVE COVERS

Indexed. R. B. Ros

Enough has been written on the subject of covers to fill a book. There is no doubt, and more may be written by the unanimity of opinion of those who are sufficient of mental nature to lead makes for a short while to a good cover, the fact by way of encouragement.

It may be well in the consideration what are the uses. To answer this in a few words might say, "To keep snow in bad weather," does not make up a full which we may properly

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rendering the second time I lose from two
to five pounds on the 100 pounds. Yet,
that cannot be considered a great amount
of sediment from that quantity of wax
(one melting). However, I am going to
try and get along without re-rendering by
special straining, when the wax is newly
melted, as the cakes are solid at the bot-
tom with the one rendering.

In caking, the wax should not be al-
lowed to get too cold before scraping the
sediment off as it can be done quicker,
easier and better if thus attended to.

We never find anything on our wax to
need skimming off; there is generally
quite a few air bubbles or froth, which
we blow to the side, when they adhere
to the crock, and this gives us a nice,
clean, smooth surface on the wax. If
any scum or froth should harden on the
top of the cake, scrape it off in the same
way as scraping off the sediment and it is
all O. K.

Hoping Mr Hershiser's valuable letter
will be the means of bringing out some
of the very best ideas on wax rendering.
Poole, April 8th, 1910.

HIVE COVERS.

Indexed
R. B. Ross, Jr.

Enough has been written on the sub-
ject of covers to fill many volumes, I
have no doubt, and possibly as much
more may be written before any real un-
animity of opinion prevails. But that
those who are sufficiently of an experi-
mental nature to leave the standard
makes for a short while may give a trial
to a good cover, the following is written
by way of encouragement.

It may be well in the first place to con-
sider what are the uses of a hive cover.
To answer this in an off-hand way, one
might say, "To keep out the rain and
snow in bad weather," but merely this
does not make up a full list of the work
which we may properly expect from a

good hive covers. We might easily add by
way of enlargement, that a cover should
at all times be robber-proof, heat-retain-
ing, sun-proof and wind-proof. Attempts
have been made to meet all these re-
quirements, but so far I have found most
of the makes now on the market lacking
in one or more of the essentials agreed
upon.

Of course the style of the cover is some-
what dependent upon the tastes of the
bee-keeper, for those who desire a clear
bee-space over the frames need to look
for characteristics which those who use
some form of frame covering or quilt do
not. For my part I prefer to use a
quilt.

The flat cover so common in use has the
undesirable habit of twisting more than
one could wish. Heavy cleats may over-
come this to a great extent, but every
time the hive tool is inserted to pry it
loose there is a strain on the material
which tends to help twisting, and this in
time gives robbers a starting point of
which they are not slow to avail them-
selves.

The ventilated cover is better, because
one layer of boards tends to offset the
warping and twisting of the other, but
to both the foregoing styles of cover I
find the following objections:

1. All covers which are designed so as
to have nothing but a bee-space between
them and the frame tops are securely
fastened to the hives with bee-glue.
Every time a hive is examined this fast-
ening must be broken. This is a matter
of comparatively little importance during
the summer, but spring and fall have to
be considered in this connection as well,
and while I admit there is not much need
of breaking the sealing in the cooler sea-
sons, there always will be more or less of
this occur. This, therefore, is one of the
objections to the flat board cover without
quilt.

2. The second objection, and to my
mind a serious one, is the inability to use

a protective covering of newspapers to conserve the heat in spring. Papers can be used, but they become soaking wet during the first rainstorm that follows their putting on. In using the papers I fold them so that they come down the sides of the hive for a few inches, forming a paper cap well calculated to retain the heat **as long as they are kept dry**. The flat board cover can not do this.

Then a cover should be **sun-proof**. In this respect the double ventilated cover is all right, and were it not for the shortcomings which it has in common with the board covers, it is the one I would adopt.

Wind-proof was the last essential enumerated in the foregoing list, and by it I mean not only proof against the passage of draughts of air either inwards or outwards, but also proof against the **lifting** power of the wind. So many people have to load their hive covers down with bricks, stones, etc., or they never know what degree of disorder will greet their eyes on their next visit to the apiary!

Now, of all covers with which I have had experience none of them seems to confer as many advantages, with as few shortcomings, as the **shallow telescope cover**; one which slips loosely down over the hive for a distance of about four inches. It can be used either with or without quilts or inner board covers. It is robber proof as its top always remains flat. It is wind-proof and sun-proof.

No shade board is necessary with this cover, for by simply raising the back end and pushing it forward till it rests on the back edge of the hive, an air space is provided, which gives splendid protection against the sun, but, of course, this will expose the frame tops to robbers unless a quilt or inner cover is used. Strange to say the cover seems to be no more liable to blow off from this position than when resting in its normal place.

The greatest advantage, however, of this cover comes from its telescoping sides and ends when using protective news-

papers in the spring. As indicated previously, I have a quilt directly on the frames. Over this, after removing the bees from the cellar, I fold substantial covering of newspapers, and the loose fitting telescope cover slips down over all, giving the protection exactly where needed and in such a way that all remains **dry**. Tar-paper and building-paper hive wrappings have been discarded by me altogether in favor of newspapers used as above, with infinitely more satisfaction, and I believe profit.

I make my covers of half-inch pine, wide and long enough to allow ample space at ends and sides of hive. The cover slips down three or four inches. Roofing paper makes it water-tight.

It is a small matter to try two or three such covers for a season, and if they are not suited to your particular needs no harm has been done. If, on the other hand, they work as successfully with you as they do with me, the object of this article will have been attained.

Westmount, Que., 15th March, 1910.

A FEW POINTERS.

Indexed

W. T. Davis, Stratford.

In my previous communication, I made some rather unorthodox statements. First, as to the shallow extracting supers which we use. Now for the why. In the first place I am of the opinion that the bees work in them more readily, cap the honey better, and (although I think I am about as strong as most average-sized men), I cannot see the sense of lifting such heavy weights, as is sometimes necessary with deep supers. I can lift off two at a time. True, the difference in cost is very trifling; the work is just about the same, and the lumber required is not so very much different. Perhaps, if I had to buy my supplies I might think differently. As it is I enjoy the job in the winter of making up supers, escape boards, feeders, (and I think I

have one of the best feeders spoiled either. Agreed that the bottom of the place to ventilate the colony to ventilate from the entrance ways found that a piece about 2 x 3/4" at each corner of the upper super gives less than a large space at the sides there is no need for a flying machine in every hive the bees to reach the comb air out and the fresh will be alright, for the small space will act as a vacuum effect. The same rule applies very well in wintering. A frame or board should require no foul air to pass through any room, (solid or not).

There has been quite a discussion over shade for bees in the open space free from trees on hives gives an air space. Carry an old knife or pry in your pocket and pry when bees begin to cluster we began keeping bees in the house, under an apple tree did alright at first, but later as the trees got larger we moved the whole of them and in front of apple and plum and three years ago those apple trees were all dead but in front of plums all right. Can any one tell why this? The plum trees are as large as trees. Our hives stand in the east and west, and get the late afternoon sun with during the day—an ideal was some golden rod and clover, and some buckwheat the first time; but it did us saw the bees working at it just before a rain. Alsike is pure. Last year we had clover, more than usual.

As indicated previously directly on the after removing the I fold substantial s, and the loose fittings down over all, exactly where needed that all remains building-paper hive discarded by me as newspapers used as more satisfaction,

of half-inch pine, h to allow ample des of hive. The ce or four inches. it water-tight.

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5th March, 1910.

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unication, I made statements. First, cting supers which why. In the first ion that the bees readily, cap the though I think I most average-sized e sense of lifting as is sometimes upers. I can lift ue, the difference ; the work is just e lumber required ifferent. Perhaps, supplies I might it is I enjoy the naking up supers, (and I think I

have one of the best feeders), and no tin pails spoiled either. Again I fail to see that the bottom of the hive is the right place to ventilate the colony. I have tried to ventilate from the entrance, but always found that a piece of fruit basket about 2 x 3/4" at each corner at the back of the upper super gives better ventilation than a large space at the entrance; besides there is no need for a step ladder or flying machine in every hive to enable the bees to reach the combs. Let the foul air out and the fresh will find its way in alright, for the small space at the top will act as a vacuum every time. The same rule applies very largely to cellar wintering. A frame or veneered house should require no foul air pipes, up through any room, (solid brick is different).

There has been quite a lot of discussion over shade for bees, but give me the open space free from shade. Gothic tops on hives gives an air space over the bees. Carry an old knife and a few splints in your pocket and pry up top supers when bees begin to cluster out. When we began keeping bees we put them near the house, under an apple tree. They did alright at first, but later not so well, as the trees got larger. Finally we moved the whole of them further away and in front of apple and plum trees. Two and three years ago those in front of the apple trees were all dead in the spring, but in front of plums all were strong. Can any one tell why this happened? The plum trees are as large as the apple trees. Our hives stand in rows running east and west, and get the early morning and late afternoon sun with partial shade during the day—an ideal stand. There was some golden rod and a little sweet clover, and some buckwheat last year for the first time; but it did us no good, only saw the bees working at it one morning just before a rain. Alsike is our bee pasture. Last year we had some white clover, more than usual. We had lots

of snow until last week. The bees were out on March 5th. I do not move the snow from the fronts of hives. I did this in 1906, and the weather first came bright and warm, and then suddenly turned to freezing, followed by a heavy rain. The result was a basin of water six inches deep, and a loss of nine colonies out of fourteen. The snow was seven feet deep in some places. In conclusion amateurs should watch Mr. Byer's and Mr. McEvoy's articles. Their advice is worth a good deal.

Later.

It is March 15 again, and I have just been out shovelling snow up around my bee clamps to prevent the bees from flying out. The snow is still about a foot deep in my bee yard, although most of the snow is gone in the fields. Now, if my memory serves me right, about twenty-five years ago, our good friend, A. I. Root claimed that only the bees that would die, or were about to die, would fly out when the weather was too cold, but I have always practiced shovelling up the snow to keep them in until the snow was about all gone. Then on a fine morning let them all fly at once.

March 19—The weather has suddenly become warm. Most all the snow gone. The day has been fine and this p. m. I quietly shovelled away all the snow from in front of the clamps and laid old boards where any remaining snow lay, and where water stood. Straw is splendid where boards are not to hand.

During the night of March 19, we had a heavy thunderstorm and sharp lightning; March 20th, foggy, but cleared up fine; bees had a splendid fly. Seventy of my seventy-two flew fine; very little spotting, bees clean and strong.

Our bees have been flying every day since the 20th.

Friday, 25th, fine warm day, bees taking in pollen. I examined about thirty colonies, clipping any queens not clipped; found only one queen missing.

March 29—A real summer day, 80 in the shade; bees working hard on soft maple; many of the trees in full bloom. Prospects are splendid with brood hatching in many of the hives and very strong.

During the next ten days all queens (where clipping is practiced) should be clipped, as it is so much easier finding the queen before the young bees begin to hatch freely. As bees are booming now and the brood spread out over the frames, care should be taken not to let our bees suffer for lack of food. Some of the top packing may be taken off now. Weak colonies can be helped, with frames of brood from the strongest colonies, so that by the first of May all colonies will be in very strong condition. I never take my bees out of the clamps until fruit bloom. Will give my summer treatment later on.

[We cannot agree with you in shovelling the snow up to the entrances. We practice the very opposite. We take care to keep the snow away from the entrances in order that the bees may obtain air. It is true that the air will pass through the dry light snow, but if you should have a thaw or sleet or rain, followed by frost, the hard crust would entirely shut off the air to the bees and they would stand in great danger of being smothered. Possibly this will account for some of your losses.—Ed.]

MIDDLESEX BEEKEEPERS MEET.

The spring meeting of the Middlesex Beekeepers' Association will be held in the City Hall, London, Ontario, on Saturday, May 7, commencing at 10 o'clock. Mr. Pettit of the Ontario Agricultural College will be present to take up the subject of "Co-operative Experiments in Bee-Keeping." Other prominent speakers are to take part.

E. T. Bainard, Secretary
Ambrose Dowswell, President.

NUCLEI FOR QUEEN REARING.

Indexed

R. S. A.

Would like to know through your Bee Journal, when to make nuclei to raise queens; and if I will have to put in a queen along with the frames? Also will I have to put some bees in along with the new queens when they come out to feed them. It is needless to say I am an amateur. You will greatly oblige by answering these questions.

[Before answering your questions with regard to artificial queen rearing it might be as well to state that this branch of bee-keeping should only be attempted after one has become thoroughly familiar with the way that bees raise their queens when left to themselves. Your success will depend upon the fidelity with which you duplicate natural conditions. The word artificial must be taken to mean that you are forcing the bees to raise queens in quantities, and at times to suit your convenience, and not that you are changing the conditions of the colony under which they will raise the best of queens.]

1. The time to make up nuclei for mating the queens is after the artificially raised cells are within 24 hours of hatching. Queens are not raised in nuclei, they are only hatched out and cared for in them during the interval between the time they are hatched and when they commence to lay.

2. The queen cell is put into a nucleus made up of brood and bees taken from full colonies and when the young queen hatches out these bees care for her and give her the warmth and attention necessary to her proper development.

If you wish to go thoroughly into the subject of artificial queen-rearing, would advise you to get "Doolittle's Scientific Queen Rearing," which is a standard authority on rearing queens.—Ed.]

PROSPECTS IN

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QUEEN REARING.

S. A.

How through your Bee make nuclei to raise will have to put in a he frames? Also will e bees in along with en they come out to eedless to say I am an greatly oblige by an-

g your questions with queen rearing it might e that this branch of only be attempted ne thoroughly familiar bees raise their queens selves. Your success he fidelity with which aral conditions. The st be taken to mean ng the bees to raise s, and at times to suit and not that you are ions of the colony un- ill raise the best of

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o thoroughly into the queen-rearing, would "Doolittle's Scientific which is a standard ng queens.—Ed.]

PROSPECTS IN CANADA.

An Englishman signing himself "E. A.," Victoria, B.C., writing to the British Bee Journal (7766), March 17th, 1910, has the following to say regarding his experiences in Canada, and his opinions thereof:

"I have had frequent inquiries from the Old Country re prospects out here since my letter appeared in the B.B.J., and if interested readers will send you their queries I will endeavor to give them the information they seek. I would, however, impress upon all this fact: if a man is doing fairly well in the Old Country, let him stop at home, and disregard the fairy tales you read of in the pamphlets, or take them with a big bunch of salt. Take, for instance, the picture of the villa farmstead; if you bring it down to the resemblance of a stable, you will be nearer the truth. In my run from Quebec to Victoria, across the prairie, I never saw a house that I would ask a decent woman to reside in; it was only when I reached a town that the houses deserved the name. My next advice is: keep out of British Columbia—a country as large as England, Switzerland and Denmark put together, with an area 700 by 400 miles, and a population of less than 400,000. In this vast territory you cannot get land (I mean for homesteads, 160 acres for the settler), as it is in the hands of the capitalists, who wait for the green horn to come along to fleece him. The country seems to over-run with these "real estate men," as they are called out here, who come to Canada, not to develop it, but for a gamble, and to grow suddenly rich at somebody else's expense. Readers may wish me to answer another question: What am I doing here? My answer is this: I was no asset at my home in England. I scorned to let the womankind keep me, so I plunged into Canada, with the grim determination to succeed or die in the attempt. I have been harvester, laborer, joiner, cook, watchman, caretaker, gardener, farmer and watchmaker, all in nine months, which shows the utter uncertainty of labor. I have done well, and passed a good many on the road, but it is not everyone who can turn his hand to as many different occupations as I can. I sent \$180 home at Christmas, earned

since August, and, though I am out of work just now, I may be in to-morrow. So much for myself. With regard to the bee industry in Canada, it is really in embryo, like the country's fruit, but growing successfully. Ontario is the best province; plenty of moisture and heat, and everything that makes fruit a success. Two days before I received the letter you forwarded from a correspondent in Scotland, I was talking with an old Ontario bee-man and fruit grower, and he said the results there far surpassed anything this way for both honey and fruit. And again let me caution intending emigrants: Do not come out to run the bee business—use it as a side line; and try to get a situation to come out to, or you may depend on having a hard struggle for existence.

It is the opinion of just such "no accounts at home," who do much to slander a new country like Canada. British Columbia and Western Canada are to-day undoubtedly the greatest spots on the earth for home-seekers to turn to. A man who "was no asset at his home in England," and who "scorned to let the womankind keep him," did well to come to Canada, and particularly to British Columbia. He will get some of the soft spots worn off of him, and will one day wake up to find himself a man—that is if the feminine disintegration has not progressed too far. Are all the Englishmen at home kept by their womankind? Is a failure there likely to be a brilliant success here? There is unlimited possibilities in Canada in apiculture, agriculture and fruit growing for the man who has not been enervated by the "social distinctions" of the old land; who has brains and courage to work, and the ability to adjust himself to a new environment. "In my run from Quebec to Victoria, across the prairie, I never saw a house that I could ask a decent woman to reside in." The indiscreet use of the word "decent" suggests a line of thought that may account for his unhappy emigration from his womankind where he was "no asset."

Men born in log houses in Canada have been heard in parliament and in the British courts before British judges, and have stood among kings. The real estate agent and land gambler is, of course, to be found everywhere. But these men are

doing great work in assisting and promoting settlement and placing upon fertile farms those who have been practically kicked to the sea shore by a group of aristocratic landlords, who must have their 'unting parks, don't-ye-know.—Ed.



During the latter part of the honey season of 1910 it was my esteemed privilege to visit Mr. Chalmers and take a photo of his apiary. A strong gale was blowing from the east, which made it difficult to obtain a good view.

Mr. Chalmers will be easily recognized in apiarian uniform, which he recommends for working at the bees. The lady is his daughter, Miss Chalmers.

It will be superfluous for me to introduce Mr. Chalmers to Canadian bee-keepers as an apiarist of long and valuable experience. As a naturalist he is familiar with the life and habits of the honey bee.

This scientific knowledge in connection with his own actual perusal of modern methods in honey production and his courteous manner to entertain and share the benefits of his researches with the bee-keeping fraternity, make a visit to his apiary both pleasant and profitable.

J. W. HONDERICH.

HONEY PA

Jacob Ha

To my surprise I find almost alone with my c pails. I see, so far, eve from, is in favor of gr So much the better, as it matter to get a standar there is a large majorit agree fully with Mr. B K A. should not rest b weight of honey pail is would know a little b we are. I notice in Ger associations have their st We surely, can have the had the idea that the g was used so extensively strange that honey is n weight; syrup, for inst notice is net weight in p those pails also cost mon me the idea prevails th always be sold, with or the same price; sure er done with the gross w comes in general use. standard pail is adopted also, even if it does not my wishes. We can not own way, especially in a

In marketing a certain rules and regulations will seller and buyer. It is n sary for the association c tee, to dictate as to whic ticular sized pail, as Mr. B J., p. 7; but it can l gested, the same as our E mittee suggests the hone; believe most bee-keepers v suggestion. As to the e honesty"—mentioned in n January number, certain dishonesty in using the g in the proper way, so I knows what he buys. I every bee-keeper knows v

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HONDERICH.

HONEY PAILS.

Jacob Haberer.

To my surprise I find that I am left almost alone with my opinion on honey pails. I see, so far, every one we heard from, is in favor of gross weight pails. So much the better, as it will be an easier matter to get a standard honey pail, if there is a large majority on one side. I agree fully with Mr. Brune—the O. B. K. A. should not rest before a standard weight of honey pail is established. We would know a little better then where we are. I notice in German journals the associations have their standard packages. We surely, can have them also! I never had the idea that the gross weight pail was used so extensively. It is a little strange that honey is mostly sold gross weight; syrup, for instance, I always notice is net weight in pails. I suppose those pails also cost money. It seems to me the idea prevails that honey should always be sold, with or without pails, at the same price; sure enough it can be done with the gross weight pail if it comes in general use. As soon as a standard pail is adopted, I may use it also, even if it does not correspond with my wishes. We can not always have our own way, especially in an association.

In marketing a certain article, uniform rules and regulations will be beneficial to seller and buyer. It is not exactly necessary for the association or their committee, to dictate as to who is to use a particular sized pail, as Mr. Byer says, C. B. J., p. 7; but it can be at least suggested, the same as our Honey Crop committee suggests the honey price, and I believe most bee-keepers would follow the suggestion. As to the expression—"dishonesty"—mentioned in my article in the January number, certainly there is no dishonesty in using the gross weight pail in the proper way, so that every one knows what he buys. But I am sure every bee-keeper knows very well under

what circumstances dishonesty could be in it should any one ever have had such a motive. I will with pleasure withdraw the expression.

I would be also very much pleased to hear through our Journal how near honey was sold to the suggested price of the Crop committee. Was it not sold lower than suggested? I am informed, it was mostly sold for 10c. a pound in a retail way in my surrounding country. My price was: For a single pail of clover honey, \$1.25; 2 pails, \$1.20 each; larger lots, \$1.15 each. In 60 lb. cans, 11 cents. If customers furnished their own pails, clover, 11 cents, basswood, 10c. Basswood was not pure this year and only a little of it. I thought it was more thistle than basswood, and there were some cells of a darker honey—just enough to discolor it a little. The flavor I liked better than pure basswood. Of comb honey I only raised about 500 lbs., for home supply. Sold, No. 1, \$1.65-75; No. 2, \$1.55. A little buckwheat comb honey was not in good demand at \$1.00 per dozen. My crop was 6,500 lbs. of light honey; sold it above prices, mostly in 60 lb. cans, and a few cases of pails. Some of it was for the west, and some to eastern points; Four thousand pounds extracted Buckwheat honey was sold at 6 cents in one lot in Montreal. What is really considered under wholesale? In selling a few hundred pounds to a party would you call that wholesale, too? I must say I am a poor business man, therefore, information or discussion would be appreciated.

Our bees had a good flight on Saturday, March 5th. The sun was so bright and warm and the air calm, we decided to dig up the hives out of two or three feet of snow. A few days before we closed every hole in the snow as we saw some colonies had the desire for flight. Every colony of 127 was flying. Three hives showed a little dysentery. One colony blocked up with dead bees was

found to have two combs with brood with quite a lot of young bees, and not too much honey. Seldom had we so few bees laying on the snow after the first flight. Eighty colonies in the cellar are so far pretty quiet yet; thirty of them are in a cellar very dry, and sometimes a little too warm. It is adjoining the furnace cellar, but bees always winter well in it. Fifty are in a good cellar under an unoccupied house. The cellar is partitioned off in cold weather, a little fire kept in the empty part, and in the room above; door up to the room, nearly every day open for a while; temperature from 40 to 42—seldom higher; will see how they come out. Comparatively less dead bees on the floor than in the warmer cellar so far.

A good start for another blizzard today.

Zurich, March 7th, 1910.

HYMALAYAN HONEY BEES.

Indexed

Experiments in Apiculture in Kashmir.

Dr. Burton N. Gates.

The Leipziger Bienen Zeitung recently quoted from the British Bee Journal, Vol. 37, pp. 365-6 an account by Dr. Earnest F. Neve, F.R.C.S., Kashmir, N. India.

Little is known of the status of bee-keeping in this part of the world, yet an association for bee-keepers has recently been organized at Simla, with the Lieutenant-Governor of Punjab as president.

The author says that bees are very common, having seen them as high as 7,200 feet above the sea level. There seems to be at least three kinds of bees, a wild type and two domesticated varieties.

The villagers frequently keep bees in cylindrical earthen jars about 2 feet long and built into the house wall. The end on the outside of the house has the entrance to the hive, while the end on the inside of the house is fitted with a lid or

cover of earthenware held in place by clay. The care of the colonies is slight and consequently during severe winters, when the mercury falls as low as 0°F., the mortality is as high as 75%.

The natives have some knowledge of queens. They have a curious way of securing a restless queen by tying her with a thread which they pin to the comb.

Although sulphur is not used to secure the harvest in October, the colony is usually so much mutilated as to cause a heavy loss of bees.

"In hot weather when supplies were scarce I noticed drones, who often disport themselves outside the hive during the hotter part of the day, were sometimes very reluctantly admitted, and were even then treated as if they were strangers, being chased from the hive. During such weather a fall of rain, so far from stopping work, seemed to give it a stimulus, owing perhaps to the more rapid secretion of nectar in the flowers. I have been surprised to find how comparatively few varieties of flowers are resorted to by the bees. Of course, in spring the blossoming fruit trees and fields of flowering cruciferae are crowded, and in summer mignonette, virginia creeper, hollyhocks, and balsams appeared to possess the greatest attraction; but, curiously enough, there were very few bees to be seen working on white clover. During the hot weather, when supplies are scarce, the bees are rather bad-tempered, and occasionally undeserved stings are sometimes meted out to an occasional observer who has been previously tolerated. In the evening, although the hive may be full, the inmates seem more gentle than in the heat of the day. The stings appear to vary considerably in intensity. Some, even when delivered deeply and strongly, produce little swelling or pain; others, inflicted lightly and on passing, as it were, have produced great irritation. It is probable that in this and many other respects Kashmir bees are very like their English

relatives. It will be interesting to see whether the introduction of alien queens will result in a better try or whether their presence will succumb to the somewhat fluctuating influence of climate and autumn droughts."

SPRING REPORT, D.

James Sto

This season is very interesting. It has been used to for a first time in this district. Most of their bees on the summer stands were put on the 25th of March, and gathering pollen nearly all day. My experience of last year was that they put on summer stands. As far as I can tell, they came in until the 25th, and I knew. As far as I can tell, they were in good order; less than last year's winter loss. Of course, there were a few losses from queenless colonies, but these were unexpected causes, but are strong and healthy, with sufficient stores for winter. Clover has not been wintered to a great extent, and should be of great kind of weather, we must have a good order. Last year our son started June 25th, 15th. In this locality honey kept up until first of bees kept raising brood time to put them away. I gave a large number of winter. I saw a few hives in two different cellars, and a brood a couple of days on summer stands. Don't rather unusual?

[It is unusual. The spring has been unusual, make unusual preparati- ing season, we have a regret it. Thanks for your very thoughtful of you.

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try or whether their progeny, too, will
succumb to the somewhat enervating in-
fluence of climate and the summer and
autumn droughts."

SPRING REPORT, DISTRICT NO. 5.

James Storer.

This season is very early to what we
have been used to for a number of years
in this district. Most bee-keepers put
their bees on the summer stands about the
25th of March, and they have been
gathering pollen nearly every day since.
My experience of last year was: Bees
put on summer stands April 6th, no pollen
came in until the 25th, the latest I ever
knew. As far as I can learn bees are in
good order; less than 2% will cover the
winter loss. Of course there may be a
few losses from queenlessness, or other
unexpected causes, but at present they
are strong and healthy, and most of them
with sufficient stores for some time. The
clover has not been winter killed to any
great extent, and should we get the right
kind of weather, we may get a crop of
honey. Last year our clover honey sea-
son started June 25th, and finished July
15th. In this locality the fall flow of
honey kept up until frost came, and the
bees kept raising brood till it was almost
time to put them away for winter. This
gave a large number of young bees for
winter. I saw a few hives opened from
two different cellars, and they had sealed
brood a couple of days after being put on
summer stands. Don't you think this is
rather unusual?

[It is unusual. The entire winter and
spring has been unusual, and if we do not
make unusual preparations for the com-
ing season, we have a suspicion we will
regret it. Thanks for your report. It was
very thoughtful of you.—Ed.]

A PROTEST FROM BRITISH COL- UMBIA.

E. F. Robinson.

As a news item for B. C. readers of
the Canadian Bee Journal, I may men-
tion that our Department of Agriculture
has appointed a Mr. Dundas Todd lec-
turer to our Farmers' Institute meetings.
I have protested against the appointment
on the grounds that Mr. Todd has not
had sufficient practical experience to pose
as an instructor.

All his writings to "Gleanings" have
been on tools: "How to Sharpen a Saw,"
"How to Use the Hammer," "How to
Use the Plain," etc., etc., His only two
papers on the Bee question have been to
acknowledge two glaring failures—Glean-
ings, Jan. 15, page 53, on wintering; and,
again Gleanings, Feb. 15, page 122,
where we find him worrying himself to death be-
cause he knows of no method to feed a
pollen substitute on January 1, attrib-
uting his loss of matured bees to the lack
of pollen. Certainly he needs posting,
and when he tells the Editor of Canadian
Bee Journal December, 1909, page 427,
that all he knows of "practical manage-
ment and control of bees" could be writ-
ten on the back of a visiting card, he is
nearing the truth.

I have been doing gratuitous pioneer
work here for the last ten or twelve
years, answering many of the enquiries
made at the Department of Agriculture,
visiting bee-keepers in trouble, and help-
ing them out as best I could; producing,
I believe, the largest quantity of honey
in Victoria district, and have certainly
made the largest and most comprehensive
exhibit ever seen in our city. As I was
receiving so many enquiries from the Ok-
anaghan country for information, I offer-
ed my services to the Government, but a
few months engagement was not sufficient
remuneration for me; if the office was
permanent I offered to accept. In the
mean time this 18 months Chicago stran-

ger with silvery tongue, and free pen (late editor of a photographer's Journal), has posed as an expert of 30 years' experience and now goes forth as an expounder of modern, practical and commercial bee-keeping. It is a conformation of the old saying, slightly varied, that presumption rushes in where experience fears to tread. A few friends and self are busy raising (on hot beds) a few hard shelled nuts for our friend to crack.

Wishing the C.B.J. a successful year.
417 Young Street, Victoria, B. C. Mar 16.

NATIONAL ASSOCIATION.

N. E. France.

The membership enrollment to-day (March 26), is 3,700. The President's mark of 5,000 is fast coming in sight. Let the good work go on.

Information Bulletin No. 15 has just been mailed to members. This is of value only as each member uses it. To many it is worth the dust of several years.

The second edition of "Bee-keepers' Legal Rights" has just been mailed to the membership. It is a reference volume which every bee-keeper should have in his library. Paid-up members get a free copy. There are none for sale to outsiders.

The winter losses of bees are quite heavy in places. Some report 75% loss.

The present honey prospects are good except in southern California, where they have had no rain for nine weeks.

Each new member gets a copy of the Report free, as long as the supply lasts, which is getting low.

R. L. Taylor, Chairman of the Board of Directors, has been having the grippe.

If each National member would work to get new members like our recent candidate for President (Thomas Chantry) has done, we would number 5,000 by the close of the honey harvest. Why not do this?

If our members who produce extracted honey will follow the advice given in In-

formation Bulletin No. 15 there will be a great demand for honey with hopes of better prices next fall.

I hope by the time the members of the National get their honey ready for market this year to be able to have new patterns of honey labels for their special use.

On the evening of March 31 as the General Manager, N. E. France and his wife were mailing the last buggy load of Bee-keepers' Legal Rights they met with serious injuries by another team running into their buggy up-setting it and causing a runaway.

[We trust all our Canadian readers will avail themselves of the opportunity of becoming members of the National (or International, as it should be called). We sincerely hope that Mr. and Mrs. France will experience no permanent injury from their mishap.—Ed].

SHORT COURSE IN BEEKEEPING AT THE MASSACHUSETTS AGRICULTURAL COLLEGE

Circulars are now being distributed for the two weeks' course in beekeeping which comes May 25th to June 8th at the Massachusetts Agricultural College.

The practical field work and demonstrations in the handling of bees will be given by Dr. Burton N. Gates, of Washington, D. C.

Crops for honey bees will be treated by Dr. William P. Brooks.

Bees, and Their Relation to the Pollination of Plants, will be treated by Dr. George E. Stone.

The Origin and Evolution of the Honey Bee, by Henry T. Fernald.

Bee-keepers' Supplies, by Dr. James B. Paige.

No tuition is charged in the course. Board and rooms can be secured at reasonable prices.

A circular and registration card can be secured by writing the Director of Short Courses, Amherst, Mass.

WHAT I HAVE LEARNED

Indexed
About the History and Nature of
the Honey Bee, and How to Manage
It. Possessed of the

John Ramsey

I was born in the year 1855 in the Township of Eramosa, at the "Gore District," but part of the County of Well-

In my early days, I occupied a few bees in straw hives, gums, from which no honey was cured, except by the crucible and the brimstone pit. Having heard, of the ancient superstitions concerning them, such as in the death in the family of plagues, mourning, etc., etc.; of luck, all of which is pure non-sense, I purchased patent vendors wonderful knowledge, or rather ignorance of them.

About the year, 1855 or thereabouts a swarm of bees in a cedar swamp, which I cut down and carried home, about seven feet high, I contained the bees and comb; I had black, and cast a swarm of bees several years, I hived the

About that time I was reading the "Genessee Farmer," in which I noticed a book for sale, entitled "The History and Termination of Bee-keeping," by Quimby, of St. Johnsville, N. Y. I ordered, and got a copy of it. It proved a wonderful revelation, and I think that the world owes much to him, and to L. L. Langstroth, of the moveable frame; all of which I have been given to these two men, who gave to the world, the history and management of the bee.

I went to work and managed Quimby's square hives, and Langstroth's wide frames, and got some very nice comb

No. 15 there will be a honey with hopes of all.

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WHAT I HAVE LEARNED

^{indexed}
About the History and Natural Habits of
the Honey Bee, and How I Became
Possessed of the Same.

John Ramsey.

I was born in the year, 1825, in the Township of Eramosa, at that time in the "Gore District," but now forming part of the County of Wellington.

In my early days, I occasionally saw a few bees in straw hives, and basswood gums, from which no honey was pro-cured, except by the cruel operation of the brimstone pit. Having read, and also heard, of the ancient superstitions con-cerning them, such as in the event of the death in the family of putting them in mourning, etc., etc.; of luck, and so forth, all of which is pure nonsense; also of patent vendors wonderful amount of knowledge, or rather ignorance concern-ing them.

About the year, 1855 or 1856, I found a swarm of bees in a cedar tree in a swamp, which I cut down and removed home, about seven feet of which con-tained the bees and comb; they were pure blacks, and cast a swarm annually for several years, I hived them in boxes.

About that time I was a subscriber of the "Genessee Farmer," in which I saw notice of a book for sale, entitled, "Mys-teries of bee-keeping explained," by Quimby, of St. Johnsville, New York. I ordered, and got a copy of the book, and it proved a wonderful revelation to me, and I think that the world is indebted to him, and to L. L. Langstrath's invention of the moveable frame; all honor should be given to these two men for the light they gave to the world, on the natural history and management of the honey bee.

I went to work and made a few of Quimby's square hives, and one of Lang-strath's wide frames, and succeeded in getting some very nice comb honey. I had

difficulty in getting the bees to build their combs straight on the frames, as wax foundation was not yet known, but when given to the world (by whom I do not know), the great problem of the management of the honey bee was solved. In 1863, a neighbor of mine, having had a few stocks on moveable frames, we or-dered three Italian queens, which we re-ceived in good condition from Mr. Quim-by; I got one of them, which was given to a colony of native blacks after re-moval of their queen; the colony in about five weeks afterwards were all fine Ital-ians, and not a black bee to be seen. On the small piece of comb, on which my queen came, she had laid a few eggs, I inserted the piece of comb containing the eggs in an empty comb, which I gave to a new swarm, after removing their queen, from which they succeeded in raising a beautiful virgin queen, but, of course she was mated with a black drone, and her progeny were hybrids, and splendid work-ers.

In, or about the year 1880, two neigh-bors of mine conceived the idea of branch-ing out, and making money out of their bees, and persuaded me to join them in their venture, which I did in a small way; after collecting together what col-onies we owned, and buying others from neighbors, we had nearly two hundred stocks, which we located at a place named St. Helena, on the mountain, on the southwest side of Esquesing, adjoining Nassagaweya, in the County of Hal-ton.

A young man was hired, and employed to manage and care for them, and all went well, and prospered for three or four years, when all was lost by foul brood, the effects of which we were ignor-ant of; however, we sent for Mr. McEroy too late, and consequently all were lost. Out of the wreck, we purchased half a dozen stocks of fine Italians, one of which fell to me as my share, which has pros-pered, and has kept me supplied with

bees for the past twenty years, with lots to spare, for those in need, as I never went into the business specially to make money. Having a farm of two hundred acres to attend to, about forty stocks was the limit in the best honey years, and my crop of honey averaged about one ton of extracted; I never did much in comb. In 1905 I attained my eightieth birthday, and concluded it was time to quit work of that kind; consequently I got two neighbors who had been trying to keep bees to take them on trial, and if a success, they were to pay what they were worth to them. They did very well the first year, and I got paid accordingly; but they gradually failed under their management, and died out. I kept two light stocks which I did not think were worth giving away, and they have done well ever since, and kept us in honey and bees up to present time, and some to spare to neighbors.

I had four stocks last winter, 1908, which all came out excellent in the spring, and gave 480 lbs. of fine extracted honey, beside throwing two first swarms late in June, the other two did not swarm at all.

I will now endeavor to explain how I succeeded in the management and care of bees:

In my early days, I erected a small bee-house for winter use, and it proved a failure; I next tried a couple of cellars with no better success, as the bees had to be removed too early in the spring. The first trouble was that they were demoralized and did not know their own home, consequently some of the colonies became over-stocked, while others were left in a weak state. Secondly, their natural instincts are to begin rearing young brood very early in spring, if they have plenty of honey and pollen; then the cold winds of April drive them into small clusters, and the brood is chilled and destroyed. Then comes the report of hundreds of stocks ruined by spring dwindling, which I consider one of the greatest evils in

profitable bee-keeping. I then concluded to try wintering them on their summer stands which has proved in my case very satisfactory. I made a case or outside cover for each hive as follows: say two feet wide by two feet six inches long; front end of box three feet five inches high; back end, three feet, to give sufficient pitch for cover or roof, which is composed of a light frame to fit neatly over the outside of box, and covered with galvanized iron, or any other material that is waterproof; the bottom, inch lumber nailed on solid, while the top cover remains loose, as it can be removed or hung on hinges and turned to one side or front. The bottom of box inside is covered with a sheet of tar paper, on which are placed two pieces of wood two inches square, and filled with chaff level with top of strips on which the hive is set. The bottom board is nailed on hive, and projects three inches in front, over which a bridge is placed for bee passage on a line with opening in front of box. The space between the hive and box is packed with wheat chaff or dry forest leaves level with top of hive, and left so summer and winter. I use the matting with which tea chests are covered, and find it superior to cotton, (as the bees never bite holes in it). When the supers and queen excluders are removed, the matting is placed over the combs on which a cushion of chaff is laid, and the box packed full of soft pea straw, with the bee entrance left open, full size, so that they can take a flight whenever the weather will permit. I have found this the only safe way of wintering bees without any spring dwindling, to profitable apiculture.

Another evil practice is the use of the honey board on the hive, especially in the winter; the moisture cannot escape through a board cover and is continually dripping back on the combs, causing them to mould, and to start dysentery in the bees. I find in removing the packing

from the top of the hive that it will be quite done while the mat cushion and the combs are perfectly dry. Some time during April, when the bees are flying and the day is clear, I remove the top packing and the bees and combs by lifting the frames, and cleaning out the boxes, so I can see exactly where they are in, generally with a little honey to carry them through. I find the back sheet filled with honey untouched, which I replace with a full sheet of chaff and shift one or two of the frames that are partially filled with honey nearer the brood, and leave the bees to attend to their business. If I find one that is short of stores I give it a few sheets; I have never fed on sugar syrup for over thirty years, and commenced my present method when they are then left until swarming time, or until they are put on with the matting over the frames. In November, after the first swarm comes, the cells are all drawn out and a new stock is in fine condition for the super. Only full sheets are drawn and drawn combs are raised. In order to provide a place a strip of foundation wide in top if frame, and finish them with drone cells better than brood cells, and can be used for several years properly cared for; they are stronger than new combs free of brood and pollen. The "Jones" frame solely for 14 inches deep by 11 inches measure. The hives were made out of any light material a

ping. I then concluded them on their summer proved in my case very made a case or outside ive as follows: say two o feet six inches long; three feet five inches three feet, to give safe-cover or roof, which is ght frame to fit neatly f box, and covered with or any other material f; the bottom, inch lumid, while the top cover it can be removed cr and turned to one side bottom of box inside is sheet of tar paper, cn two pieces of wood two d filled with chaff level s on which the hive is board is nailed on hive, ee inches in front, over s placed for bee passage pening in front of box. en the hive and box is eat chaff or dry forest top of hive, and left so ter. I use the matting chests are covered, and to cotton, (as the bees in it). When the supers nders are removed, the ed over the combs on of chaff is laid, and the of soft pea straw, with left open, full size, o ke a flight whenever the mit. I have found this y of wintering bees withdwindling, to profitable

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from the top of the hive in the spring that it will be quite damp on the top, while the mat cushion and packing near the combs are perfectly dry and clean. Some time during April, when the bees are flying and the day is calm and warm, I remove the top packing and examine the bees and combs by lifting out all the frames, and cleaning out the hive; by doing so I can see exactly what state they are in, generally with plenty of honey to carry them through, and often I find the back sheet filled with sealed honey untouched, which I remove and replace with a full sheet of foundation, and shift one or two of the back sheets that are partially filled with sealed honey nearer the brood, and leave it capped as the bees will attend to that part of the business. If I find one that is likely to be short of stores I give them the full sheets; I have never fed one drop of sugar syrup for over thirty years. Since I commenced my present mode of management they are then left undisturbed until swarming time, or until the supers are put on with the matting and cushion over the frames. In not over five days after the first swarm comes off the frames are all drawn out and all the queen cells removed but one, consequently after swarms are not expected and the old stock is in fine condition for storing honey in the super. Only full sheets of foundation and drawn combs are used in the hive, consequently but few drones are raised. In order to provide super combs, place a strip of foundation two inches wide in top of frame, and let the bees finish them with drone comb, which is better than brood cells for extracting, and can be used for several years if properly cared for; they are better and stronger than new combs and are kept free of brood and pollen. I have used the "Jones" frame solely for many years, 14 inches deep by 11 inches wide, outside measure. The hives were made at home out of any light material and of uniform

size, and dressed inside; as they are never exposed to the weather they will last a lifetime and prove a great saving of time and money, compared with the usual style of hive with waterproof roof and paint, and left exposed during the summer months to sun and rain which soon splits and destroys them.

I am satisfied that the C.B.J. is doing good work, especially since it came under the present management. After making allowance for much of the silly ideas presented by some of your correspondents as it always has, and still is necessary, for the reading public to do considerable sifting, and we are likely to still have a few correspondents who are much better at preaching than practice.

F. W. Clark, of Lindenbank, near Guelph, was correspondent to the "Montreal Witness" specially on the honey bee, and was a success until he attempted to prove that bees, if kept in a sufficiently cold atmosphere during winter would hibernate, and consequently eat no honey until they awoke in the spring, which rather damaged his reputation as an authority on bee management. I visited his apiary and met him many times, and found that he could not practice what he attempted to preach, as a bee sting was almost death to him. I asked him if he really believed what he had written on the hibernating theory, his answer was: "In writing for the public papers you must have something fresh and new to interest the public."

That same idea seems to be still in the minds of many correspondents who seem anxious to change the natural instinct of the bee, which is sheer folly! I read an article lately, I think the writer is an American, who claims to have found "three mature queens busy on a single sheet of comb." If that proves to be a fact, it must have occurred in Utah, and the bees and queens have learned and are following the habits of their masters,

who have completely changed their nature.

An article from T. H. Burns, published in the *Farmers Advocate* of February 3rd, inst., in part says: "I wish to say that there is no problem confronting the bee-keeper in Ontario to-day as difficult to understand as that of wintering, and none in which the losses are as great or as difficult to prevent. When we realize that over fifty per cent. of the bees in Ontario died in one winter through faulty methods, * * * "we cannot understand how the equipment of a modern bee cellar would more than justify the expenditure for the same." The writer of this article above noted, does not appear to understand the natural habits of our honey-bee, forgetting that they are the natural product of a mild and warm climate, and not confined three or four months in an unnatural state. Their instinct and necessities demand periodical flights in the air, in all seasons of the year, which cannot be provided in this northern climate to which we have imported them, by confining them in a bee-house or cellar. During our long and rigorous winters, no matter how perfect the cellar may be constructed, the bees must be removed from cellar in March or first of April at least for a flight in the air, in order to cleanse their bodies of the load that they have been carrying, and if placed on their summer stands unprotected, then comes the news of spring dwindling, chilled brood, and all the other evils that bees are heir to, and I believe has a great deal to do with the origin and spread of foul brood.

I took notice lately of an article on bees in the *Los Angeles Daily Times*, by Allie Shultz, viz.: "The Calabasas mountains are the working ground of more than ten thousand colonies of bees that are found to be clean and free from the dread disease of apiaries, foul brood. Many hives can be secured when they swarm from the wild bees that abound in the

rocks and caves in Encine Canyon in the Calabasas County."

"Homeopathic physicians will buy bee stings in large quantities to be used as a medicine, called *Apis Mellifica*. The stings which are taken from live bees are placed in small phials of sugar or milk, and used for the cure of Rheumatism; it smells like sting poison and is given internally."

"One peculiar thing in the bee world of to-day is the lengthening of the bee tongue. A bee's tongue is about the twenty-fifth of an inch long, and by keeping only those bees with naturally long tongues, the bee-keepers have succeeded in lengthening a number of colonies to the extent of another hundredth of an inch; it does not sound much, but it enables a bee to do a fourth more work in the same time."

Now, if we take the above notes seriously, we must come to the conclusion that the Americans are much cleverer than Canadians, as friend Jones, of Beeton, after travelling over a great part of the world and spending a fortune, failed in producing a bee with a longer tongue, or very much superior to our native black bee.

I hope the O.A.C. in commencing the teaching and study of the honey bee, will avoid any further expense in experimenting with costly bee houses or cellars and try to provide for and follow the natural habits and instincts of the honey bee.

I attended a convention of bee-keepers in Toronto many years ago, where I had the pleasure of meeting the Rev. L. L. Langstroth and several other American gentlemen and had the pleasure of listening to a most common sense address on the natural history of the honey bee and utility of the movable frame. My idea now is, and has been for many years, that the world, and more especially the bee-keepers of Canada and America owe a debt of gratitude to the names of Langstroth and Quinby that they can

never pay in kind, therefore devise a scheme to be put to the convention held in Canada in correspondence with the bee in the United States of America and of the world, with the object of raising a sufficient amount to erect a monument to perpetuate their names. I suppose the proper place would be in New York City or St. Louis, where both Americans.

We have nothing in history to show that the old-world before us has any more about the natural history of the honey bee than did the new world in the middle of the eighteenth century when the researches of the bees were given to the waiting world.

The Israelites, in their wanderings through the wilderness, were given the promise that they should eventually inherit a land flowing with milk and honey, which in their case was a land of plenty; while Samson, the honey found in the anaconda, the lion he had slain as "meat." The riddle was solved by the bees after plowing with Samson's oxen, the whole world was enlightened, and has reaped immense profit from the solving of the bee riddle by Langstroth and Quinby.

FROM GERMAN JOURNAL

Jacob Haberer.

Thick or Thin Syrups

J. R. Crane reports in the *Nouvel* of an interesting experiment. He weighed three groups of bee colonies. To group No. 1, 1000 grammes of sugar dissolved in 1 liter of water. To group No. 2, 3000 grammes dissolved in 34 liter of water given warm. Group No. 3, same feed as No. 2, but it was given cold. After two weeks the colonies were weighed. The increase of

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devise a scheme to be put in motion at
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United States of America and other parts
of the world, with the object in view of
raising a sufficient amount of money to
erect a monument to perpetuate their
names. I suppose the proper place would
be in New York City or State, as they
are both Americans.

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FROM GERMAN JOURNALS.

Jacob Haberer.

Thick or Thin Syrup.

J. R. Crane reports in the Apicultural
Nouvel of an interesting experiment. He
weighed three groups of bees, each five
colonies. To group No. 1, he fed 34
kilogr. of sugar dissolved in 17 liter of
water. To group No. 2, 34 kilogr. dis-
solved in 34 liter of water; this was
given warm. Group No. 3, received the
same feed as No. 2, but it was fed cold.
After two weeks the colonies were
weighed. The increase of group No. 1

was 34 kilogr.; the increase of No. 2 was
29.5 kilogr.; of No. 3, 29 kilogr. The
difference in weight shows what amount
of feed the bees had to consume to evap-
orate the overplus of water; that is 4.5
kilogr., to evaporate the extra 17 liter of
water fed to group No. 2. The cold
feeding required still more, 5 kilogr. for
the evaporation.—Bienenzeitung.

In English Mechanics the interesting
fact is stated that a bee without a load
will fly 65 kilometers in an hour; about
as fast as an ordinary express. But with a
full load of pollen she can only make 20
kilometers per hour at the fastest. But
still this is a great accomplishment, com-
pared with only about 6 kilometers per
hour for a good walker.—B. Wegweiser.

Foul Brood Cure.

At the Bee-keepers' convention at
Nienburg (Oct., 1909) Ed. Knoke stated
how he cured 17 foul broody colonies in
1907, and that the disease never appeared
again. He disinfected the empty hive
with formaldehyde vapor (40%), shaken
the bees on foundation, divided the combs
to the other diseased colonies to save the
healthy brood. He treated a colony
every other day. By the time he came
to the last colonies (middle of June) he
used some of the brood comb of the first
treated colonies; in this way he says he
lost very few bees and by the end of
July, had not only 17, but 21 good
healthy colonies, and nothing of foul
brood has been noticed since. He claims
to have used **disinfected** combs with even
a few scales in, but only in surplus de-
partment, as it seems. He thinks very
much of the formaldehyde disinfection.
He used a certain inhaling apparatus. —
Bienenwirtschaftlicher Centralblatt.

Get this before you build. Tells why fire-
FREE proof metal material is cheaper
Book from first to last—tells why one
kind is the cheapest it's safe to
buy. No matter what you mean
to erect or repair, indoors or out,
send for book. Ask nearest office
PEDLAR People of Oshawa
Montreal, Toronto, Halifax, St. John, Winnipeg, Vancouver

EXPERIMENTS WITH FARM CROPS.

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1910 they are prepared to distribute into every Township of Ontario material of high quality for experiments with fodder crops, roots, grains, grasses, clovers and fertilizers, as follows:

No.	Experiments.	Plots
1	—Three varieties of Oats	3
2a	—Three varieties of six-rowed barley	3
2b	—Two varieties of two-rowed barley	2
3	—Two varieties of Hulless Barley	2
4	—Two varieties of Spring Wheat..	2
5	—Two varieties of Buckwheat	2
6	—Two varieties of Field Peas	2
7	—Emmer and Spelt	2
8	—Two varieties of Soy, Soja, or Japanese Beans	2
9	—Three varieties of Husking Corn	3
10	—Three varieties of Mangels	3
11	—Two varieties of Sugar Beets for feeding purposes	2
12	—Three varieties of Swedish Turnips	3
13	—Two varieties of Fall Turnips ..	2
14	—Two varieties of carrots	2
15	—Three varieties of Fodder or Silage Corn	3
16	—Three varieties of Millet	3
17	—Two varieties of Sorghum	2
18	—Grass Peas and two varieties of Vetches	3
19	—Rape, Kale and Field Cabbage ..	3
20	—Three varieties of Clover	3
21	—Testing two varieties of Alfalfa (Lucerne)	2
22	—Four varieties of Grasses	4
23	—Three varieties of Field Peas ..	3
24	—Three varieties of Field Corn ..	3
25	—Fertilizers with Swedish Turnips.	6
28a	—Two varieties of Early Potatoes ..	2
28b	—Two varieties of medium ripening Potatoes	2
28c	—Two varieties of Late Potatoes..	2

29 —Three grain mixtures for grain production

30 —Three grain mixtures for fodder production

Each plot is to be two rods long by one rod wide, except No. 28, which is to be one rod square.

Any person in Ontario may choose any one of the experiments for 1910 and apply for the same. The material will be furnished in the order in which the applications are received while the supply lasts. It might be well for each applicant to make a second choice, for fear the first should not be granted. All material will be furnished entirely free of charge to each applicant, and the produce will, of course, become the property of the person who conducts the experiment.

C. A. ZAVITZ,
Director.

Ontario Agricultural College,
Guelph, March, 1910.

SOUTHERN CALIFORNIA.

The bee industry of Southern California, while not yet far developed, is an important one. The production of the State in favorable years has amounted to nearly 10,000,000 pounds, and most of it comes from the Imperial Valley (a wonderful honey-producing section that has leaped to the forefront), and districts south of the San Joaquin.

IMPORTANCE OF RE-QUEENING.

(Continued from page 90.)

stantly joining our ranks. It is very largely for their benefit we discuss these problems. I would, therefore, postulate that the beekeeper's year ends with the close of the white honey flow. Taking this as our starting point, I consider his work after that is preparatory for the coming year. Therefore, if that be the case, I would say that his policy is to immediately re-queen at the end of the white honey flow. If he does,

he puts his hive in possession of a young and vigorous queen. He should give him a young, active, vigorous queen to go into winter quarters. This is one of the most effective for gathering a crop of honey. But, the prime purpose is that he has a new queen present immediately after the close of the honey flow, which will give him a stock of young bees to go into winter. This is one of the best for good wintering. Having a stock for winter, I will assume you know how to winter your hives. I will assume your hives have a minimum of chance of going to lose your queen during the winter because she is a new, vigorous queen, and the probability will come through the winter successfully than if she were a

Having come through your winter into your spring work and the further satisfaction of a young and vigorous queen. You know that other things she is going to be able to do well with young bees, and to come into your summer good hive full of bees. Do that breeding is heavy, just white honey flow, (and all flow), see to it that your queen is laying to her utmost capacity. This care must be taken that the nest is not so crowded with capped brood that she will be unable to lay. If the state occurs—and it is very common frames of honey or frames of brood to the upper storey, with empty comb below, she will have ample room in which to lay. It will not exceed that which you should take care of. By thus keeping your chamber roomy you

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he puts his hive in possession of a new, young and vigorous queen that will give him a young, active, vigorous lot of bees to go into winter quarters. They will also be effective for gathering a fall flow if he has one. But, the prime point in this is that he has a new queen put in his hive immediately after the close of the white honey, which will give him a vigorous stock of young bees to go through the winter. This is one of the first requisites for good wintering. Having your good stock for winter, I will assume that you know how to winter your bees. That is no part of our present discussion. We will assume your hives have gone into winter quarters and wintered well. You have a minimum of chances that you are going to lose your queen during the winter because she is a new, young and vigorous queen, and the probabilities are she will come through the winter more successfully than if she were an old queen.

Having come through your winter you enter into your spring work. As you enter into it you have also the assurance and the further satisfaction that you have a young and vigorous queen in your hive. You know that other things being equal she is going to be able to stock that hive well with young bees, and you are going to come into your summer flow with a good hiye full of bees. During the time that breeding is heavy, just prior to the white honey flow, (and also during the flow), see to it that your queen is laying—laying to her utmost capacity. To insure this care must be taken that the brood nest is not so crowded with honey and capped brood that she will have no empty cells in which to lay. If this crowded state occurs—and it is very likely—lift frames of honey or frames of capped brood to the upper storey, replacing same with empty comb below, thus providing her with ample room in which to lay. She will not exceed that which the bees will take care of. By thus keeping the brood chamber roomy you eliminate that

crowded feeling that prompts the desire to swarm. Swarming is largely prevented by giving abundance of room on top, and avoiding a crowded brood chamber. The man who will thus manipulate the brood chamber will get the bees, and having the bees he will get the honey. At the end of the honey flow you have done with that queen—you have exhausted her—and you will renew her again; and so the process will go on. This to my mind is the philosophy and utility of re-queening. There are subsidiary questions, which might be taken up as to where you are going to get your queens. I presume that the man who requeens knows where to buy his queens, or if he is not buying his queens, that he knows how to raise them, but neither of those questions have anything to do with the question of re-queening. Mr. Sibbald told you the virtues your queen should possess. That was very nice. It was a most desirable thing to get queens possessing all those virtues—all those admirable strains. Perhaps it is my fault, but I have not known where to locate such a queen. It is nice to have a queen that has a good laying strain; and a honey gathering strain; and a mild temper, but for the life of me I do not know where to find such a queen.

If you are raising your own queens you will, of course, select the best queen you have in your yard and breed from her, but whether you are going to get all these various strains in one queen, and whether or not you can buy such a queen, is something I can not advise you upon. But, as a general principle, I am a thorough believer in putting new and vigorous queens in your hives every year.

Mr. Anguish—As Mr. Sibbald said in his outline, this is one of the most important things to the bee-keeper. I say it is the most important thing in bee-keeping—that is looking after your-queens. As soon as the honey flow is about at a close I re-queen my yard all over as much

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as I can, but not to kill everything off; that is going a little too far. You have got some colonies in your yard that have given you some great results this year. What are you keeping them for? Those are the ones I want to breed from next year. I want to get some queens from those colonies. Here is where we get our bread and butter, from the good stock of bees we have got. We all know that queens vary, and they vary some times in seasons too. Take one season, a queen will do extra well; she won't do as well the next, but you can raise good queens from that one.

There was one bee-keeper here who was telling me he bought one queen from a certain queen breeder in the United States this year and gave \$5 for it. He has requeened his whole yard—90 queens—from that one queen this summer. I think that man has made a mistake. He has probably got 90 queens that won't be much good to him next season.

Mr. Ross—I was very glad to hear Mr. Sibbald say he enjoyed looking for queens. I am so situated, I have to get to work at my bees early in the morning or after 6.30 at night, at both of which times the hives are packed full of bees, and I have experienced a good deal of difficulty in finding queens at that time. Can anybody give me some scheme whereby I can get those old queens to supersede without too much difficulty?

Mr. McEvoy—As a rule about 6 o'clock in the morning the queens are on the first three frames in the centre, and they go in a circle around. They are at one side or the other at 6 o'clock in the evening. I want plenty of bees. I couldn't agree with Mr. Sibbald in that.

Mr. Sibbald—I meant you should not choose to breed from the most prolific queen you had just because she was prolific.

Mr. McEvoy—That depends on the training you give these bees. You can get the work out of these bees if you set

them to work right, and the more bees there are the better. Mr. Dine took a short cut that was well worth paying attention to. I have practiced the same thing. I like it first rate. I will get more profit out of young queens than old ones. Someone will say, I have had queens do so and so at such and such an age. Yes; you can get good men at 70, but you can get more good men at 40.

Mr. Dine—I am a firm believer in requeening, but we are taught a queen lives from three to four years. Is it possible for a queen to get to her best in ten or twelve months. If I had a queen that laid a comb full of eggs do you think I would change her the first year? No, I would keep her for two years or more. I go, personally, more by the looks of a queen. As long as she is bright and yellow and filling the combs full, I would keep her till she showed signs of failing.

Mr. McEvoy—That will all depend upon the work you take out of that queen. You keep her confined to the brood chamber only; you raise no brood to the super.

Mr. Dine—That queen will wear out in two or three years in that way,

Mr. McEvoy—I would run that queen and wear her out in the time I say.

Mr. Hershiser—The question resolves itself to this, do away with all your poor queens and keep your good ones. Mr. Ross wanted to know how to find a queen, and there are several ways of doing it. I would like to call attention to one or two. By taking the frames out one by one and shaking the bees off at a considerable distance, stringing them along on a sheet, if you please, and get them to run in, and if you watch them at the entrance you will soon find the queen. Another way is to put a queen excluder over the hive and shake the bees down, and as they run through it they will strain the queen out, and you will find her on top of the queen excluder.

Want and Exchange

Advertisements for this column are received at the rate of 10¢ per word, each additional word 5¢. Payments strictly in advance. Amounts are too small to collect. Write copy of advertisement on one side of the paper only. Many times ad. is to be paid for each month.

HONEY BEES WANTED
Write F. A. Allen, P. O. Quebec.

BEES WANTED—I want any one having the same to drop a line to Jacob Alper.

WANTED—Second-hand power saw. Must be in good shape. Address, L. B. Quebec.

WAX WANTED—I want good, pure bees wax; from Chatham until I get stock. Wax made up and sold. W. A. Chrysler, Chatham, Ont.

WANTED—Bee Journals for a number of volumes. Bee Journals for use in the Agricultural College, and find copies and some complete. Please send us a list of the ones you have, stating what you want. Morley P. Apiarist, Guelph.

BEES FOR SALE—50 or their crosses; good about \$5.00, more or less. Address James Sackville, Ont.

240 POUNDS of No. 1 will buy sixty 8-frame I and supers with Hoffman half with bottom boards.

400 pounds will buy a 10" cert phonograph with 20 horns; a first-class one.

\$40 will buy a nice solid Jersey heifer, due to calve.

Any quantity of No. 1 will be taken in exchange for pails, same as I use. Write for your next season's catalogue.

G. A. D.

Want and Exchange Column

Advertisements for this column will be received at the rate of 50 cents for 25 words, each additional word one cent. Payments strictly in advance, as the amounts are too small to permit of book-keeping. Write copy of ad. on a separate sheet from any other matter, and on one side of the paper only. Say plainly how many times ad. is to be inserted. Matter must reach us not later than the 23rd of each month.

HONEY BEES WANTED—Cash paid. Write F. A. Allen, Philipsburg, East Quebec.

BEES WANTED—I want to buy bees. Any one having the same for sale, kindly drop a line to Jacob Alpaugh, Galt, Ont.

WANTED—Second-hand Barnes foot-power saw. Must be in good order and cheap. Address, L, Box 55, Ormstown, Que.

WAX WANTED—I will pay 28 and 30 cents per lb., according to quality, for good, pure bees wax; freight prepaid to Chatham until I get stocked for the season. Wax made up and foundation for sale. W. A. Chrysler, Chatham, Ont. Box 441.

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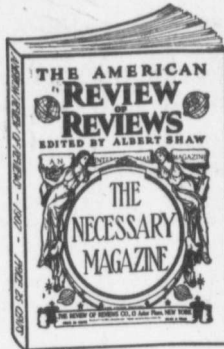
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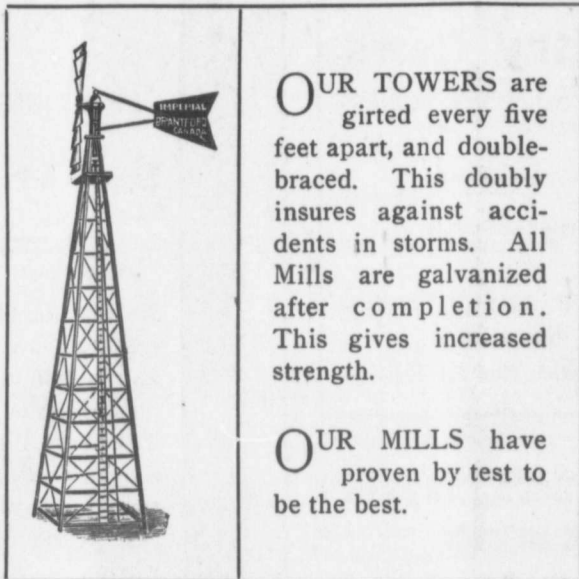


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