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BEE-KEEPERS I MET ON MY TRIP

BY A TRAVELER

Rev. T. J. Spratt, at the head of Wolfe Island, opposite Kingston, runs about 140 colonies. This was rather a poor season with him, having secured but a small crop of comb and about 30 swarms. Father Spratt uses the Richardson hive, with T tin rests in the supers, clips his queens, manages for comb honey exclusively, tiering up two, three or four supers of 27 sections each on a hive. He employs a faithful man to watch the yard during the summer and a young woman to scrape, sort and crate the comb in the autumn and prepare the four-piece sections, with full sheets of foundations in the spring, for the latter purpose using what is known as the Spangh Foundation Fastener, which is the most sensible and satisfactory automatic machine I have come across, excelling five or six of those commonly used.

Father Spratt produces a first-class article, and supplies most of the comb honey sold in Lindsay. His bees would probably do better if they were situated not so near the extremity of the island—say two miles or so farther

from the lake—so they could fly in two ways instead of one.

John Ham of Coboconk is also a comb honey producer. He follows the old system of using wide frames, each holding eight sections; usually averages 50 lbs. to the colony. Mr. Ham winters in a cellar, with the outside door opening into a wood shed, and left open when the weather is at all moderate.

W. L. Cogshall of West Groton, N.Y., ran a yard of 300 colonies this season near Cornwall, on the St. Lawrence river. His daughter and son-in-law spent the summer there. W. L. is always on the alert and can smell a field of buckwheat a long distance off. He clears off a plot five or six rods square, right in the woods, places a plain honey house at one end and sets out from 50 to 100 colonies, and winters them successfully afterwards in this salubrious spot. He uses saw-dust packing and places the hives two deep in the clamps, having, of course, an upper set of entrances.

Managing for extracted honey, he uses only one top storey, with seven frames, 9x18 inside measure, and eight frames below, spaced 1-8 inch closer. He uncaps very deep with a cold, dry Bingham honey knife; uses extractors taking two and four pairs of frames horizontally, and handles two combs in each hand at a time, passing them

across the machine instead of turning the baskets around.

For fastening foundation in sections he uses a pressure machine, in which the edge of an iron plate 1-8 inch thick by 4 inches wide is brought to bear against the edge of the foundation when laid against the top piece of the section. It works fairly well if kept lubricated with thin starch and the sections and foundations kept warm, say 90 degrees. Probably even the "Parker" would work well under the above conditions, especially if shod with iron. At a bee-keepers' picnic, however—which, by the way, are all the "go" over there just now—the plan said to be superior to all machines was referred to, viz., simply to dip the edge of the foundation into the foam of boiling beeswax and 1-3 rosin.

The cold, wet spell that came on the 26th August put a stop to the buckwheat flow, and meant 40 or 50 thousand pounds less for W. L. and 20 thousand less for David Cogshall, judging from the hive on the scales in David's home yard. David runs seven yards and takes off all the honey himself. Lamar has 20 yards, some of them 25 miles distant, and has three gangs of men to run them.

The Cogshalls have a peculiar way of driving the bees out of the super by flopping the quilt at every puff of smoke. When the bees rush out at the entrance they lift out quickly the seven sombs and drop in another set before the bees rush back through the perforated zinc. Their frames are made of four plain pieces, no shoulders, slots, tenons or saw-cuts; foundation is fastened to the top with a liberal daub of wax, and just two horizontal wires are used. If a saw-cut 1-8 in. by 1-8 in. was made in the top bar and the foundation inserted, it would take less wax and be a better job, I think. They use light brood foundation—home-made, of course, but

it is tough and strong and answers well.

When the weather is wet or windy, or the bees extra cross or robbing, "stovepipe" smokers are used, and I must say, fill the bil admirably; in fact, if hung on the windward side of a hive, will drive all the bees out while you are operating the previous one, so no time is lost blowing and puffing and flopping the quilt. When supers are to be taken off a strong force is put on, and before the bees are aware of it all the supers are secure in the honey house. Cappings are exposed and the bees allowed to lick them dry. Lamar has a unique way of rendering wax. He adds an agitator under the sieve which covers the caldron. Sun steam and screw extractors are stored away somewhere in the junk shop. Wax "galore!"

They have a lovely country over there near the town of Auburn, N.Y. The scenery along those lakes is charming—deep, dark, tortuous glens crowned with rich foliage; picturesque little precipices, overhung by babbling brooks, often breaking from a smooth sheet into a silvery spray, showering the Sage stragglers below.

Dud. House has his apiary in one of these sheltered nooks. Hills on either side of his yard 150 feet high, almost perpendicular, and topped with large maples. His hold is fall pasturage, all up and down the hundreds of acres of waste land along the Erie canal.

How excellent it would be if we could only secure some hustling "non-swarmers" and start, say, ten in each of ten yards; increase to a thousand in four years, then simply make enough swarms to fill the vacancies, as the Cogshalls do. All in the woods and sheltered nooks, and "nothing to me body," but cash from the "general Jews," who would buy up our buckwheat honey.

Little Britain, Ont., November, 1901

Hints for Beginners

R. F. HOLTERMANN

Many who have been keeping a few colonies of bees, or, rather, whose bees have been keeping themselves, when last spring opened found themselves without bees. Winter losses were heavy, and those who suffered most in this way were people who knew little or nothing about bees or their management.

There are many things which influence the wintering of bees, and perhaps the foremost in studying the question would be the bees themselves. Strong constitution, quiet disposition and such traits, whether in human beings or the lower animals, will always be less influenced by trying conditions. In the different varieties of bees we find these different characteristics more or less strongly developed, and when we have hardiness, good working qualities and gentleness combined we are sure to have a bee which is likely to remain the longest calm and quiet when confined in winter. We know that so quickly as the colony becomes excited and break cluster, so soon is the beginning of its death.

Many years' experience in handling bees has convinced me that there is a great difference in the way bees winter when wintered under the same outward conditions and upon stores gathered at the same time and from the same fields. One stock is continually restless; light entering the cellar or the least jarring disturbs them, when another standing by its side is dormant, almost motionless. The active colony, aside from its disposition, on

account of its activity, consumes more honey, therefore the intestines become clogged sooner and dysentery is more liable to set in. If these statements be true, and I believe they are, then more attention should be paid to the bees we keep, just as with cattle and other live stock on the farm. It does not pay me to keep the majority of Black or German bees when compared with the best strains of Italian or Carniolan, which today can readily be secured. The honey a colony of Italian or Carniolan bees consume is, I believe, less than the Black, and something is saved here. From other standpoints it pays to get good queens, and I would strongly recommend that those who can spare the time to introduce them get them. I have given up selling queens, and do not want to be troubled with correspondence and delays, on account of being away in out-aplaries, but I just want to impress some points of difference which have been found.

Robert West of Jamaica, W.I., writes June 28 of a certain queen: "The queen sent last year is an excellent mother. She has kept her brood nest full ever since. They are now occupying 4 chambers, 10 Langstroth frames. We gave them plenty of room, and they have come through the swarming season without showing any inclination to swarm. They are at work half an hour earlier in the morning than our Italians, and keep at it until after dark. I sometimes wonder how they see, and stand the cold so well. Some of the drones got into another hive and were caught in the drone trap. The next morning the Italians were nearly all chilled to death, while these Carniolans were alive and active."

Remember, I am not "after orders" for queens. If you want this strain, write the Editor of The Canadian Bee Journal, who will gladly furnish full

particulars. I would also advise to avoid Golden Italians, but the best strains of the darker Italians are in some respects quite equal to Carniolans. Do not attempt to keep Carniolan bees in small, contracted hives.

Brantford, Ont.

SELLING HONEY IN THE HOME MARKET.

(By N. E. France, Plattsville, Wis.)

The nearer home the producer can sell his honey the greater the profit. Every time it is sold through dealers there must be a profit, which reduces the price the producer will get. Each handling of honey, the same as with fruit, injures its appearance more or less, for market, and that means slow sale at a lower price. The many beekeepers who have educated themselves in the production of honey, have neglected the just as important part, how to prepare it for the market, and sell it at good prices. If the dealer has to clean the sections, then grade as he crates, and pay for travelling salesman to sell the goods, it all costs, and the loser is the producer; as he gets only what is left. Don't hurry your honey on the early market unless the demand and the price will justify it.

Many Commission Houses Do Not Handle and Care for Honey Properly.

Most of the commission dealers handle fruit, vegetables, poultry, etc., as well as honey. Last fall, by request, I called on several such dealers in large cities, to learn why certain bee-keepers' honey was not sold. Each dealer said he could not sell honey so long as the big supply of perishable fruit was on hand: the honey would keep and he could sell that later. I found tons of once fancy-comb honey, also extracted honey, in their cellars. The comb honey had a bad, watery appearance, was in soaked cases, and the barrels and

kegs had been rolled in the coal dust on the floor. Besides this, some thin, extracted honey was working out and souring. Do you wonder that the honey was slow selling, and the beekeepers talking of the National Association selling the honey?

The Damage Done By Putting Unripened Honey on the Market.

Another cause of slow sale is, many are not careful to extract well-ripened honey. In Southern California and parts of Texas and Arizona, where there is scorching sunshine every day, and the honey is nearly ripened in the flowers, it may be possible for the beekeeper there to take ripened honey before being capped by the bees. I have been in many of the States from California to New York, and I fail to find any other locality where the quality of honey is like that ripened and capped over in the hives by the bees. In New York, buckwheat honey, if ripened well, sells easily: but I will guarantee that any market will soon be ruined with a little unripened, sour honey. American people eat an abundance of sweets, and are willing to pay a fair price if they know it is pure and not injurious to health.

Get our honey before the people in neat, attractive packages, the same as any canned goods, then in a short time, by a little advertising, we will be sold out, and buying more honey to fill our orders.

Advertising Extracted Honey and Putting It Upon the Home Market.

My little honey city of about 3,500 people, consumes, each year, about 14,000 pounds of extracted, and some 700 pounds of comb honey, besides some adulterated syrup which is sold to those who desire something "cheap." All this without any "peddling." Just thirty years ago we sold comb honey in large boxes, at 25 cents per pound. We then got our first extractor. I wrote short articles for our local pa-

pers, telling how the honey was extracted, and how much better it was than the old fashioned strained honey mixed with bee-bread and other foreign material. At public gatherings, in the city park I took combs of honey, the extractor and uncapping knife, in the band-stand where all could see the honey extracted. Then I passed around the combs, also the honey in my nicely labelled pails with a spoon to sample it with. I was careful to advertise that such honey was for sale in every produce store in the city, at the same price as I there sold it. Sometimes, if sales were not as good as usual, we would take the light wagon with a barrel of nice honey, the barrel fitted with a faucet, and scales to weigh with, and peddle out one or two barrels, taking special pains to inform customers that they could get more like it at any time in nearly any store in the city, and at the same price—10 cents per pound.

The Most Desirable Packages for Retailing and Shipping Extracted Honey.

For a few years we bought glass, Mason fruit jars to supply stores with, and then we got a better package, the common tin pails, holding two, three, five and ten pounds respectively. This worked well, except that once in a while the driver would break a jar, or get a pail cover off, in either case he was sure to have a muss in the delivery wagon, if not on some goods. I then changed to the friction top cans, and pails, the same package now used in every grocery store to sell syrups in. They never break, never leak, and are easily opened. They are the best package for honey I ever saw.

For the city trade the two and three pound sizes sell best. The five and ten-pound sizes are the best for the farmer trade. For shipping to market, the five-gallon, round can with flat top, is by far the best selling,

also the easiest handled, and the best in which to liquify honey, at any house. Every retail package has my label on, and the price marked thereon, which, most of the time has been sold at ten cents a pound for the honey, then add the cost of the package. During the last two seasons I have changed it to eight cents for the honey. The meat markets sell from \$50 to \$150 worth of honey per year. General grocery stores sell the most.

As for the pay for the honey, the merchant is satisfied with the profit on his goods, but if I draw any money it is at 10 per cent discount. To save this discount I get my neighbors and often some of my hired help, to take an order on some store for whatever they may want.

In the cool rooms of the meat markets, honey soon becomes granulated, and, once in a month, during winter weather, I see to it, if all packages are granulated, to exchange some for freshly liquified ones; take those home and set the cans in a little water, then, when liquified, put on new wrappers, and they are again ready for the market. Many now prefer the granulated. As each package has directions how to easily melt the honey, there is less demand for the exchanging of cans.

Now, if by a little effort, I can sell from 14,000 to 15,000 pounds of honey each year, at home, in this little city, I see no reason why others cannot do as well or better, and thus all get better prices, enlarge our circle of neighbors and friends, and become better and more useful citizens.—Bee Keepers' Review.

Do not forget to save all of the scraps of comb and melt them up into beeswax. It always brings the cash and sells for a fair price, and it does not take a very large cake of wax to bring the price of a bee hive, so it pays to save it.—Modern Farmer.

MANAGEMENT FOR FEW UNFINISHED SECTIONS.

(By G.M. Doolittle, Onondaga Co. N.Y.)

How to manage our bees so as to secure the greatest yield of comb honey, is a question of great importance to all those who are engaged in producing such honey for market, but comb honey is of little value unless pretty nearly, or fully sealed over, so that how to manage our bees so as to have few uncapped sections in the fall is a question of more vital importance perhaps, than the one we have been in the habit of regarding as the greatest. For years I was troubled with having from one-fourth to one-third of the combs in the sections not fully sealed at the close of the honey harvest, which was salable only at a reduced price; but of late years I do not have as many as formerly.

After experimenting for some years in this matter, I became convinced that the cause of the trouble was in giving the bees too many sections; and especially conducive to this was the plan of tiering up sections late in the season. Many, yes, very many, times, years ago, I spoiled a promise of an abundant yield of honey by tiering up four or five days before the honey harvest closed. To tier up sections profitably, requires considerable tact, and especially do we want to have a thorough knowledge of the honey resources of the field we occupy.

It seems to me that there has been too much injudicious talk during the past regarding not allowing the bees, under any circumstances, to cluster on the outside of the hive, the idea being generally conveyed that, when bees thus cluster out, they need more room. To my mind it depends upon when this clustering out occurs, whether more room is needed or not; and for this reason I said 'injudicious talk.' If the clustering out occurs at the

commencement or the height of the honey harvest, then more room should be given; while, if at the later part of the honey harvest, or in a time of honey dearth, no more is needed, for more room at this time results in the one case of many unfinished sections, and in the other in an absolute waste of time in enlarging the hive. Allow me to illustrate:

During some seasons we have but very few days of honey secretion, and that often after the flowers which produce the nectar are rather past their prime. At such times we often do not have on the hive more than one-half the capacity which we would use in a good season, and for this reason the bees begin to be crowded out. Hoping that the weather may continue good, and that the flowers will secrete nectar during the rest of the time that they are in bloom, we double the room for our colonies, only to have it turn bad weather again, thus giving us only partly filled sections in the fall, while had we left them as they were, and not have been stamped at the sight of a few bees hanging out on the front of the hive, all would have been finished.

I well recollect one such season, when, in time of basswood bloom, we had bad weather up to the middle of the same. At this time I had on the hives about one-half of the surplus room generally used, when, all at once, the yield of honey became abundant, and the bees began to crowd out. Hoping that the weather might remain good I doubled the capacity of a few hives. The result was that the bees immediately took possession of the empty sections, while the weather turned unfavorable again, and when the season was over I did not secure half as many finished sections from these colonies as I did from those which were allowed to remain as they were.

Again very often after basswood bloom has failed, there comes on very

hot weather, when not a bit of nectar can be obtained, and the result is that the fronts of the hives are black with bees. According to the advice of "never allow your bees to lay out," or "whenever you see bees laying out, more room should be given," the sections should be hustled on at once, till there is room enough for all the bees inside, before the bee-keeper could rest in this matter; and some have gone so far as to tell us that at such times as this (at least no qualification was made in the matter as to time, regarding the yield of honey, etc.), we should smoke the bees in, after having given the room, continuing the smoking until they would stay in the hives.

Any one can see at a glance that such unqualified talk and advice as this would do only harm, and be of no use, for at such times the bees are doing just as much for the benefit of the apiarist by hanging on the outside of the hive, as to be elsewhere. Yea, more, for if they were out vainly searching for honey, when there was none, they would be wearing out their vitality so that they would be gone before the next nectar-secreting flowers came into bloom, as well as to consume an amount of honey from the hive equal to what was needed extra to give them strength for this vain foraging.

My plan of securing nearly all completed combs of honey in the sections is as follows:

When the bees show, by building little bits of comb here and there, about the hive, that they are ready for the sections, I put on only the amount of room that I think they will reasonably fill in a very poor year, and leave them thus until the bees are well at work, when I give them about the same amount more, if this is during the forepart of the honey season, and when this room is fully occupied, I give the same amount again, if we

have not passed the middle of what is our usual honey-flow. By the time the bees fully occupy the last room given, that first put on will be ready to come off, and when this is taken if more room is needed, it is put above the sections that the bees are already at work in, so that they may not be forced into these last sections until they are lacking in room to work below.

If the yield continues, I keep taking off the filled sections next the hive and putting the empty on top of those the bees are already at work in, until the season begins to draw to a close, when as fast as the full are taken, the others are lowered down till the space is contracted to the original capacity that was first put on. In this way the bees are given all the space they really need, while the chance for many unfinished sections in the fall is quite small. Such items as these are well worth looking after and studying upon; for they who understand the most about all these little kinks of practical bee-keeping are the ones who will make the greatest success in the apicultural world.—American Bee Journal:

If you are a beginner in the bee business do not be in a hurry to try all the experiments you read about, or to buy all the traps that you see advertised. The people who have these things for sale are not running a benevolent society for the benefit of the bee-keepers of the land. Things in this business are made to sell just the same as in other industries, and a man or woman should use a little discretion and common sense in the purchase of bee goods, as well as anything else. If you have unusually good success do not become excited and think there are "millions" in this business. It has its ups and downs, good years and bad ones, the same as any other business, but close application and intelligent and persistent action is sure to win fairly good returns here as well as elsewhere.—Modern Farmer.

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AUGUST, 1904

EDITORIAL NOTES.

Reports received from reliable sources throughout the Dominion indicate a very light honey crop generally, and mostly clover. This, following the heavy losses of the past winter and spring, means that there will be comparatively little honey in the country. First-class comb will be exceedingly scarce. The committee appointed by the O. B. K. A. have issued their annual circular to members. These should be filled out and returned to Secretary Couse as soon as possible, in order to give the committee an early opportunity of placing the probable market values of honey, and of advising the members of the Association.

There has been a large acreage of buck-wheat sown in many districts this season, taking the place of the winter-killed fall wheat, and many bee-keepers are moving their bees to these localities. The Foster & Holtermann people took 360 colonies a few days ago by rail toward Lake Erie.

We regret to learn, by the American journals, of the sudden death of H. C. Morehouse, late editor of The Rocky Mountain Bee Journal. Mr. Morehouse just recently sold his interest in the journal that he might give his exclusive attention to bee-keeping. He had something over a thousand colonies. He leaves a wife, and a little son of two years old,

The annual convention of the National Bee-keepers' Association will be held September 27-30 in the auditorium of the Christian Endeavor hotel, within 100 feet of the south entrance of St. Louis Fair. Vice-President C. P. Dadant has just returned from the fair and has secured the best possible for members. Special rates: Send at once 50 cents to General Manager N. E. France of Platteville, Wis., to secure charter certificate to insure your special rates at above hotel—\$1.00 day lodging, or \$2.00, board and lodging—otherwise higher rates will be charged. Make it a point to attend the Fair the week before or after the convention, and thus continue your reduced board rates. Market St. cars westbound in front of Union depot will bring you direct to the above hotel without transfer.

N. E. FRANCE,

General Manager,

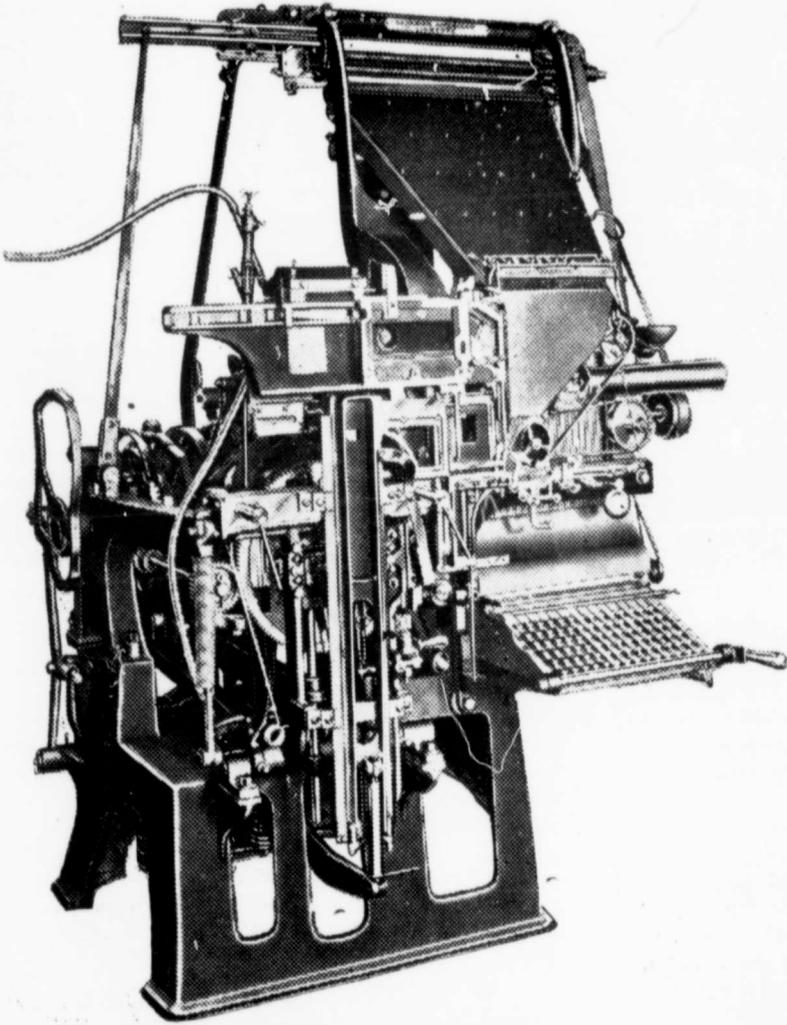
Platteville, Wis.

By special arrangements with The Mail and Empire Publishing Company, Toronto, we are enabled to make the following exceedingly liberal clubbing offers for the next 30 days:

To new subscribers The Canadian Bee Journal one year and The Weekly Mail and Empire to January, 1905, for 60c. To old subscribers renewing their subscriptions to The Canadian Bee Journal one year in advance, we will club The Weekly Mail and Empire to January, 1905, without extra charge. Each subscriber will be entitled to choice of the following artgravures: "The Miner's Farewell," "On the Edge of the Herd," "Contentment," or an enlarged picture of Mr. R. L. Borden.

We have received copies of a new American publication 'The Rural Bee-Keeper, published by W. H. Putnam, River Falls, Wis. It is very nicely gotten up, and the opening number contains a lot of good, useful matter. We welcome the new comer on our exchange list,

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THE MERGANTHALER LINOTYPE

This number commences a new volume of the Canadian Bee Journal. A new dress has been supplied throughout which we are sure will be appreciated by our readers. Instead of being set up by hand process the reading matter will in future be the product of the Linotype, the most modern of type setting machines. This machine has been described as possessing almost human ingenuity. A description of the entire mechanism of the machine would require many pages, but a word or two will give some idea of its capabilities. Matrices representing the many letters and characters required are arranged in compartments at the top of the machine. The operator presses a key and the proper letter falls. When enough letters are in place to fill out a line a lever is pressed and the matrices are carried to the casting box, and the solid line of type is formed. Then automatically these matrices are grasped by a clamp and carried to the top of the machine. They move along a spiral bar, each matrix being fitted with a particular combination, and drop into their proper compartment.

Reports from the Districts

A great many colonies were lost during the winter; those that came through built up well, and were in good shape for clover bloom, but on account of unfavorable weather the bees did not gather a great amount of honey. Rains make the prospect of honey from fall flowers promising. We believe that some sections have had a better clover flow than ours.

E. L. COLPITTS.

Westmoreland Co., N. B., July 26.

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White clover pretty good; weather too dry now; a little rain would help. Prospects for buckwheat are good.

A. O. COMIRE, M.D.

Yamaska Co., Que., July 26.

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Honey crop in Quebec province will be below the average. Clover very abundant, but bees did not get the honey they should have from it. Basswood very good bloom, and bees have done well on it, and prospects are good for a fall flow. Swarming has been fair and will help to bring up most apiaries, which lost heavily during the past winter.

F. W. JONES

Missisquoi Co., Que., July 26.

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Season about closed; about 25 lbs. per colony from clover; basswood was good for about one week. I estimate an average of about 35 pounds spring count; will remove supers in a few days; there is not likely to be any fall surplus, perhaps enough for the bees to winter on. Where has the big honey crop gone to?

W. J. BROWN.

Prescott Co., Ont. July 25.

Total honey crop is very slim indeed; all clover. Basswood bloomed well, but no honey from it whatever; not one bee did I see on my trees, and there are more than half a dozen within a few rods of the apiary. Have not seen any buckwheat, so the prospects for anything more this year in this locality are very poor. The little honey we did get is A1.

J. K. DARLING.

Lanark Co., Ont., July 22.

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Would report at this date that clover gave us an average of fifty pounds per colony, or a little over, with an increase of about fifty per cent. The basswood with all its beauty and profusion of bloom, has come and gone, and we did not get any honey from it. Weather conditions were unfavorable. We are hoping for a flow from fall flowers, but honey will be a short, very short crop in this district.

M. B. HOLMES.

Leeds Co., Ont., July 26.

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White honey season is over; clover about half a crop; basswood a total failure, the sixth consecutive season that basswood has missed; this with an average of about 50 per cent. less bees than last season makes it the lightest honey crop for the last ten years. Prospects for fall flow, poor.

C. W. POST.

Hastings Co., Ont., July 22.

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Clover is about over, and is a small yield, certainly not more than half the amount usually secured. Basswood was a failure, but not much here in the best seasons. There is a chance that something may be got from fall flowers, but if not it will be a very poor season. Have not extracted much yet; what I have is very thick, but not up to last year, either in color or flavor. Increase has been about 75 per cent.

GEORGE WOOD.

Dufferin Co., Ont., July 25.

The warm days of this week have helped to increase slightly the yield which promises in this locality, to be but a small one this season. No honey from basswood as yet. We have had considerable rainfall and the bees will probably secure sufficient to keep them, but not likely to add much to surplus. Honey should be in good demand, and prices should range higher than last season. I should judge from loss of bees last winter, and unfavorable weather during the honey flow, there will not be one-third as much honey as last season around here.

GEORGE A. DEADMAN.
Huron Co., Ont., July 21.

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My own yards have produced about half a crop, very little of it from basswood. I am unable as yet to say how others have done in this district, but fancy the crop will not average more than one-third the number of pounds produced last year. We all know how that should effect the price, provided that bee-keepers run their business on a business basis; unfortunately there are many who do not, hence it is difficult to count on results.

F. J. MILLER.
Middlesex Co., Ont., July 25.

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The season has been poor; not more than half of last season's average, I judge.

J. W. SPARLING.
Durham Co., Ont., July 22.

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Season about over; basswood in full bloom, but not yielding anything; surplus from clover will be about fifty pounds per colony.

H. G. SIBBALD.
Peel Co., Ont, July 22.

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About 25 pounds per colony, mostly basswood, swarming about five per cent.

JAMES ARMSTRONG
Haldimand Co., July 31.

White honey crop is over, and is about half what it was last year. I think that will be about the average in this section. There is no basswood.

S. WOOD.
Simcoe Co., Ont., July 26.

ADVANTAGE OF THICK EXTRACTING COMBS.

In a very excellent article in The Bee-keepers' Review on uncapping and extracting honey expeditiously, Mr. E. D. Townsend of Remus, Mich., has the following to say about the advantage of thick extracting combs:

"We use only eight combs in a ten-frame upper story. This is about 13-4 inch spacing. With this wide spacing we get great, fat combs of honey, and then we run our uncapping knife deep, cutting the comb clear down even with the frame, and there are hardly ever any combs so uneven but what the knife will uncap them the first time over. This makes it possible to uncap much faster, and there are less combs to handle. I do not think it would be putting it too strong to say that two ten-frame upper stories, with eight combs in, can be uncapped as quickly as one with ten combs in; and then the eight frames can be extracted in one-fifth less time. Besides this, we get a good deal more wax; and I cannot see as it costs anything extra, this drawing out of the combs each year. I cannot conceive of a more puttering job than trying to uncap narrow-spaced combs with thick top-bars. Before we began to use wide spacing in the upper stories it took two of us most of the time to do the uncapping, if we made any headway; now Delbert alone will uncap more honey than any two frame extractor will handle; and we are contemplating putting in a four-frame machine in the future. It is surprising how quick-

ly one of these fat combs can be uncapped. A man who had never seen any uncapping done stood looking at Delbert slicing off the whole slice of a comb at one clip, the whole operation taking perhaps four or five seconds, when he remarked, 'It's a regular skinning machine! Were I to run that knife like that I would not have any fingers left on that left hand.' Probably the worst mistake made in uncapping is in holding the comb at such an angle that the cappings, after being cut off, fall back on the comb, necessitating going all over the comb a sec-

ond time, to scrape off the loose cappings, thus consuming more time than it took to uncapp it in the first place. Then others, when they have run their knife, say one-third the way over the comb, or when they think they have all the cappings their knife will hold, stop and scrape their knife on the uncapping tank; in fact, it does seem as though some parties trying to uncapp honey spend half their time scraping and cleaning their knife. The only time a knife needs cleaning is when one has been so bungling as to get some particles of comb daubed over the edge."

PRIZE LIST CENTRAL CANADA EXHIBITION, OTTAWA September 16th to 24th.

Honey and Apiary Supplies—CLASS 64.

Sec.		1st.	2nd.	3rd.
1	Best 20 lbs of Extracted Granulated Honey, in glass	\$ 5	\$ 3	\$ 2
2	Best display of 100 lbs. of Liquid Extracted Honey, of which not less than 50 lbs. is in glass, quality to be considered	10	5	2
3	Best display of 100 lbs. Comb Honey in sections, display, fresh appearance and finish to be considered	10	5	2
4	Best 10 lbs. of Comb Honey, quality and finish to be considered; that is to say, body and flavor of honey and clean and best filled sections to be considered	5	3	2
5	Best 10 lbs. of extracted Clover Honey in glass....	3	2	
6	Best 10 lbs. of extracted Linden Honey in glass....	3	2	
7	Best 10 lbs. of extracted Buckwheat Honey in glass, purity to be considered	3	2	
8	Best Beeswax, not less than 10 lbs	2	1	
9	Best Exhibit, the object being to educate the public as to Bees—their natural history, the bee-keeping industry and its relation to horticulture	5	3	2
10	Display of Bee-keepers' supplies.....	Diploma		
11	Best foundation for Brood Chamber	1	.50	
12	Best foundation for Extracted Honey	1	.50	
13	Best Hive for Comb Honey	1	.50	
14	Best Hive for Extracted Honey....	1	.50	
15	For the largest, most tastily and neatly arranged exhibit of Honey in the Apiarian Department, all the Honey to be the product of the exhibitor (\$5 of this prize is given by Mr. R. Masson, Boot and Shoe Merchant, Ottawa	15	10	5

Entrance fee 25 cents each section. Entries close September 14.

NOTES AND COMMENTS

By a York County Bee-Keeper.

Does Bee-keeping Pay?

While this is a question quite frequently asked, it is, nevertheless, one of the hardest to answer. So much depends upon location, the man, and other factors, as Editor Hill says in June "Bee-keeper." "As well ask, Does store-keeping pay? Under the same conditions either is profitable to certain persons; under the same conditions neither is profitable to others. It is the same in all branches of industry and commerce."

Believe it was at Philadelphia some three or four years ago, while the National was in session there, that Mr. Abbott of Mo. challenged anyone to stand up who made their living exclusively from keeping bees. Of course this was only a bluff and like, in the majority of cases, it was successful; no one accepted the challenge. However, it seems to me that there can be no doubt that quite a number of apiarists are making their living (a good one too) depending upon nothing but the income from their bees.

"Strained Honey": A Misnomer.

Editor Hill copies from "Printers' Ink" a model advertisement for extracted honey. While the "ad." in question is undoubtedly worded in catchy form, yet I would emphatically object to the use of the word "strained honey." It savors too much of the vile compound obtained by squeezing bees brood, honey, pollen, etc., together. By all means let us drop the ob-

solete "strained," and always use the word "extracted" when speaking of honey in the liquid form.

Shallow vs. Deep Extracting Combs.

A recent talk by Doolittle in "Gleanings" gives me courage to speak of something I have noticed for some time, but could give no reason for the "why and wherefore."

Mr. D. says that shallow extracting combs encourage swarming. Have some dozen or so extracting supers, (about five inches deep) and for some reason colonies that these are placed on two and three deep, will swarm every time when other colonies given the same super room with a large, deep super, will not swarm. Can't explain why this should be the case, but I do know that the same thing has happened every year since I have had them.

Does Old Comb Produce Small Bees?

Dr. Miller says that he has combs bought from Adam Grimm some years before his death, which appear to be as serviceable as ever. As Mr. Grimm died twenty-eight years ago, it would seem that there is nothing in the contention of those who think that the cell walls become lined with cocoons to such an extent as to dwarf the size of the workers. As Editor Root says "it hardly seems creditable that nature would make such a fearful mistake."

Sanfoin as a Honey Plant.

Mr. W. K. Morrison, in an instructive article in "Gleanings" on the subject of cultivation of honey-producing plants, speaks enthusiastically of sanfoin. He says "It produces honey in quantity and quality equal if not superior, to alfalfa, and that too, in cold wet countries—something that alfalfa never does." He states also that it is an important European crop, grown almost everywhere. Mr. M. thinks it advisable to get the seed

direct from Europe, and from the addresses of seedsmen given. I note the following: Messrs. Vilmorin Andrieux & Co., Quai de la Magisserie, Paris, France, and Watkins & Simpson, 12 Tavistock St., Covent Garden, London, England.

By courtesy of Mr. Fixter of the Central Experimental Farm, Ottawa, the writer received a small package of seed this spring. It certainly is a handsome looking plant, and the first blossoms are looked for with interest. The seed was sown the first week in May, and at this date (July 22) plants are from eight to twelve inches high. If farmers could be induced to sow the seed it might be a boon to beekeepers, especially when the second crop blooms in August, a time when nectar is usually none too abundant.

Peculiarities of the Present Season.

As we have had cool, backward weather ever since spring arrived, and this following a very severe winter, it was generally conceded that a light crop of honey would follow, as a matter of course. In this we have not been disappointed, judging by reports received from various parts of the country. However, speaking personally, have taken considerably more honey than I expected, for as stated in July Canadian Bee Journal, bees were in no condition to take advantage of the flow. Never before have I noticed such a difference in colonies of equal strength and conditions; it was a splendid season to pick out the hustlers. While some colonies gathered scarcely a living, others a surplus of 25 to 50 pounds each, others again rolled up 200 pounds or more to their credit. Swarming was very easily controlled, in fact towards the latter end of the season I came to the conclusion that it was not worth while making a weekly examination of the one yard where there were no attendant in charge. Even strong colonies were adverse to working on

foundation. Last season if there was a frame filled with foundation in the super among the combs, the bees would often start to work on it at once before much honey was stored in the drawn comb. This year they would seal over every comb and never touch the foundation. As a rough estimate, I would say that by having drawn combs for every colony, we obtained **this season** four times as much honey as would have been possible with only foundation. Other seasons there might possibly have been but little difference in results between the use of combs or foundation. Basswood, while it looked splendid, the blossoms were as dry as a chip, and this, notwithstanding that we had "all kinds" of weather while it was in bloom. Whether hot or cool, dry or damp, no nectar seemed to be secreted. At present writing bees are storing a little from the "detested" thistle, which this season is much more abundant than usual. While the thistles are an eyesore to the farmer, there is no harm in our bees gathering the nectar. Truly "it is an ill wind that blows nobody good."
York Co., Ont.

REQUEENING.

July and August are good months to requeen. In these months we usually are past the main honey flows and will not interfere with the honey crop. But there are other reasons for requeening in these months. As young queens usually lay better than old ones, they give us a good supply of young stores for winter, which is a very important factor in wintering and against spring dwindling. Again, the queens bought in July and August are reared in the most favorable time of the season and are naturally a finer grade of queens. Then we have a lot of new queens to build up our colonies the next year in honey. And here is where we hit the important thing in bee-keeping is the honey crop, and every bee-keeper should work to this end or go into other business.—D. J. Blocher, in *Rural Bee-keeper*.

HOW TO GET WORKER COMB BUILT.

"Are you very busy this afternoon, Mr. Doolittle?"

"Not extremely so, Mr. Baker. What can I do for you?"

"I wish to have my bees build their own combs this summer; and whenever I try to have them do this, they seem bent on building drone comb. How can I prevent this?"

"When any colony is so weak that it has no desire to swarm, during or preceding the swarming or honey-flow, such a colony will invariably build worker comb, so that worker-brood may be reared until the colony comes into a prosperous condition, providing they do not have sufficient comb already built."

"Why can I not use some of the weak colonies I often have in the spring in that way?"

"You can. Taking advantage of this fact I use all colonies which are too weak to store honey to advantage at the beginning of the honey-flow, or as many as I wish to use for this purpose, treating them thus:— Their combs are generally all taken from them, excepting two, one having a little brood and considerable honey in it, and the other being as nearly full of honey as possible, giving all the other combs having brood in them to other colonies so that they will be still stronger for the honey harvest.

"Don't you leave any of the combs which they may have, having neither honey nor brood in them for their use?"

"No. If I did I would defeat my object, for the bees would clean up such combs, and the queen lay in them instead of the bees building any comb at all."

"I see. But excuse my interrupting. Go on with what you do with the colony after you have taken away all but the two combs."

"I now put in one, two and sometimes three frames having starters in them, or frames which are partly filled with comb, just according to the size of the little colony, after having taken their combs away."

"Excuse my breaking in again; but what do you mean by starters?"

"Take a strip of comb foundation, one-half inch wide, and as long as your frame is wide between the end-bars, and with melted wax stick this along the centre of the under side of the top-bar of your frame, and you have a starter which will beat any other which I know of."

"And what did you mean by frames partly filled with comb? Where do you get these?"

"These are any combs which any colony of bees may have started at any time, and not completely filled the frames with the same. Or they may be frames once filled with combs, a part of which may be drone comb, which I have cut out, or holes which have come about by some accident to the combs, such as mice gnawing them or the bees tearing them down to get out moldy pollen or something of that sort; or I may have allowed the bees to build comb when they were not in condition to build worker comb exclusively."

"And will the bees patch up such combs as these, filling them out with worker comb?"

"Most assuredly they will if the colony is in the right condition."

"Well, that will be lots of help to me, for I have many combs, partly drone, and partly worker, that I did not know what to do with, and now I will make the bees patch them. But go on or I may not know how after all."

"In all this work I always see that each little colony has a frame well-filled with honey; for should storms, or cloudy, windy weather come on at this time, they would build no comb

of any amount, and might starve; while with the frame of honey they will go right on converting that honey into comb, storm or no storm. If the right number of frames is given to suit the size of the little colony, they will fill them quickly, especially when honey is coming in from the fields; and each comb will be filled with worker brood as fast as built."

"How long will they build worker comb?"

"If not too strong they will generally build comb of the worker size of cells till the brood begins to emerge from the eggs first laid in the newly-built combs by the queen; but as soon as many bees emerge they are liable to change to the drone size of cells; or if the little colony is quite strong in bees they may change the size of cells sooner than this if honey is coming in very rapidly."

"What is to be done then?"

"As soon as the first frames I gave them are filled with comb I look about to see how many bees they have; and if they are still well stocked with bees or are in shape where I can expect that they will change the size of cells before they reach the bottom of any frames they may have started with worker comb, I take out any full frames they may have already built, and thus put them in the same condition they were in when I started with that colony."

"Will they do as well in this way as they did at first?"

"They will not build combs quite as freely now as they did before, unless there can be some young bees emerging; so if I can conveniently, I give them a comb containing mostly honey with some emerging brood (if they have such a comb it is left with them, which is more often the case than otherwise) from some other colony, when they are ready to work the same as before. If just the right amount of brood is left, or given them, so that

they stay in about the same condition, they will build worker comb all summer by the apiarist supplying them with honey or feed when none is coming in from the fields. If not so strong but that I think they will build worker comb still longer, instead of taking the brood away, I spread apart the combs now built, and insert one or more frames with starters between, when these will generally be filled with worker comb, before enough young bees emerge for them to change the size of the cell."

"Suppose they do change the size of cell, what then?"

"One thing is always to be kept in mind whenever you find them building drone comb. The combs they then have, all except the ones mostly filled with honey, are to be taken away so that they may feel their need of worker brood again, when they will build cells of the worker size once more."

"Have you used this plan much?"

"To the extent that I have had hundreds of frames built full of worker that the bees had built partly full that the bees had built partly full the season previous, and hundreds if not thousands, patched where I had cut out patches of drone which had gotten in one way or another; or where I had cut out pieces of comb having little larvae in, that were to be used for queen rearing. In this way the bees fix these holes in any comb in a very perfect manner; in fact, very much better than any man can do it by fitting in patches of worker comb as was the manner of fixing up combs having a little drone comb in them during the past. Therefore I do not fear mutilated combs nearly as much as I formerly did."

"This has been an interesting and profitable talk with me, and I feel very grateful to you for telling me so freely. I will be going now. Good-day."

"Good afternoon. If you see anyone of your bee-keeping friends who wishes a mutilated comb fixed so that it will be a surprise to him, tell him to give it to a little colony fixed the way I have described it to you, and let him watch what nice work they can do at patching with all-worker comb."—Conversations with Doolittle in Gleanings.

Chemical Work in Connection with Bee-keeping 1903.

By F. T. Shutt M. A., F. I. C. Chemist, Dominion Experimental Farms.

Our experiments towards ascertaining the conditions under which it is best to store honey were begun in the season of 1902, and I was able to present to this association at the last annual convention certain results that showed most emphatically that extracted honey should not be kept in a moist, cold atmosphere. The data we obtained and my remarks thereon are to be found in the last report (1902) of this association, but in order to refresh your memories I shall ask you to note the following table, in which I again bring before you the more important of these results. They indicate that honey is exceedingly hygroscopic; that is, that it is capable of absorbing large quantities of water if exposed to a moist atmosphere. We further found this absorption of moisture was merely the first step towards fermentation and the spoiling of the honey.

Experiments on the Storage of Honey, 1902.

	Water Per cent.
Ripe honey, from capped comb	15.83
Ripe honey, exposed to dry atmosphere one month . . .	14.24
Ripe honey, exposed to moist atmosphere one month . . .	31.46
Ripe honey, exposed to dry atmosphere 20 days	13.84
Ripe honey, exposed to moist atmosphere 20 days	48.23

- a—Honey placed in glass cylinder.
- b—Honey placed in open evaporating dish.

We have repeated this experiment during the past season with extracted honey, with similar results, and also have had under trial honey in the comb. This latter is also shown to deteriorate rapidly in a moist atmosphere. The plan of the experiment was as follows:

Extracted Honey.—This was weighed into flat-bottomed, open dishes and exposed for three weeks (1) to the air of the laboratory, (2) in an atmosphere saturated with moisture under a bell jar in the laboratory, (3) in the air in a pantry of a house on the Experimental Farm, and (4) to the air in the cellar of the same house—this cellar being fairly dry and ventilated. The temperature in 1, 2 and 3 varied from 60 degrees F. to 70 degrees F. and in 4 from 50 degrees F. to 60 degrees F. during the period of storage October 12th to November 12th. The extracted honey exposed in the saturated atmosphere showed, in the course of a few days, marked signs of deterioration in quality, becoming thin and watery and beginning to ferment. At the end of the three weeks period of the experiment it was quite unsaleable, and, indeed, unfit for use as an article of diet. That which had been kept in the ordinary atmosphere (both in laboratory and the pantry) had not perceptibly altered in appearance or taste, and was in excellent condition. The cellar-stored sample had at the end of the three weeks begun to ferment.

Comb Honey.—While not suffering to the same degree as the extracted honey, that in the comb deteriorated considerably when placed in the cellar, and still more so in the saturated atmosphere artificially provided in the laboratory. The latter, before the close of the three weeks' period, showed

drops of water collected on the comb and had begun to mold. The comb stored in the pantry and in the laboratory, at the end of the period of exposure, was in first-class condition.

This investigation, therefore, covering two years' work, emphatically points to the desirability of storing honey—both comb and extracted—in a warm, dry atmosphere, such as may be obtained in an upstairs pantry or room. Deterioration is sure to follow exposure in a damp atmosphere, and for this reason the cellar, no matter how dry it may appear, is not a good place in which to keep honey.

Honey Vinegar.

It frequently happens that there is more or less honey on hand which, from one reason or another, is not saleable. A considerable amount of honey can also be counted upon from the washings of the cappings, etc. All this may be put to profitable use by conversion into vinegar, and it was with the object of obtaining information as to the strength of the solution or amount of honey per gallon that could be most satisfactorily used, that the following preliminary experiments were made:

Six solutions of honey were prepared, varying in strength from 1 lb. honey in 1 gallon of water to 6 lbs. honey in 1 gallon of water. These were placed in six 11-2-gallon, wide-mouth glass jars about 6 inches in diameter, each jar receiving one gallon of honey solution. They were then "seeded," or inoculated with a little of the mother vinegar plant and the jars covered with cheesecloth.

A temperature of 80 degrees F., or thereabout, is usually held to be most favorable for the fermentation, but this, at the time of the experiment (October), unfortunately, could not be obtained. The jars were, therefore, filled with well-ripened honey. Unfortunately the amount of honey in each case

stored near the hot-water coils in the upper story of the laboratory building, the thermometer ranging from 60 degrees F. to 70 degrees F., but usually from 65 degrees F. to 70 degrees F.

The acidity of the various solutions has been determined three times, to date, viz., at the commencement of the experiment, Oct. 20, and on the 29th, October, and on the 30th of November.

Though undoubtedly the temperature was too low for the most rapid conversion, the results plainly indicate that, as regards the strength of the honey solution, the fermentation is restarted, when the strength of the solution exceeds three lbs. per gallon. As far as the work has gone the strongest vinegar was produced from the two pounds per gallon solution, and the probability is that when the experiment is completed it will be shown that the most economical strength of the honey solution will lie between 1 pound and three pounds per gallon.

From time to time these solutions will be examined for acetic acid, and I trust to be in a position before the next annual convention to speak more authoritatively on this subject.

Aphidian Honey.

Two small samples of the so-called honey dew or Aphidian honey have been received by me quite recently, from Mr. J. L. Byer of Markham, Ont., and Mr. Robert E. Marshall of Hamilton. Mr. Byer writes: "This honey was gathered from the basswood and elm leaves during the latter part of July and the early days of August." Mr. Marshall states: "It was gathered during August from oak and hickory leaves." Both samples possessed a peculiar and somewhat bitter taste, though the flavor to the palate first was slightly smoky. They appeared to be somewhat thinner than natural, was too small for any extended research, but determinations of the

water-content were taken, with the following results:

Water-content in Aphidian Honey

Per Cent.

From basswood and elm leaves.. 20.66
From oak and hickory leaves .. 20.24

These data indicate that as far as water-content is concerned this so-called Aphidian honey is similar to the unripe or immature honey from uncapped cells, and it is of interest to note in this respect that Mr. Byer says the bees refuse to cap the cells containing this honey.

It is to be hoped that larger quantities of this interesting honey may be obtainable, so that an examination of the sugars and other possible constituents can be made. It is quite possible that through such a chemical investigation further light may be thrown upon the source of this honey, a matter of considerable dispute among bee-keepers, but a subject we need not here discuss, as there is no fresh evidence to adduce from this preliminary work.

Adulterated Honey.

As a member of the committee appointed by this association at our convention last year to bring before the Inland Revenue Department, Ottawa, the desirability of an examination of bottled honey on the Canadian market, I beg to briefly report as follows:

On representing the wish of this association, and the fear that had been expressed that adulterated honey was upon the market and injuring the interest of the bee-keepers, Mr. W. J. Gerald, Deputy Minister of Inland Revenue, Ottawa, assured me that honeys would be included in the next collection of foodstuffs. This was done, and in the neighborhood of 100 samples have been analysed. The results published as Bulletin No. 90 of the Inland Revenue Department, have recently appeared. They show, practically, that

80 per cent of the samples examined were genuine. It was evidently high time to have made this investigation. It is to be hoped that those who persist in selling adulterated honey will be punished as they deserve, for in no other way can honest honey-producers be protected.

Adulterated Comb.

At the instance of this association, we examined in 1890 certain samples of foundation comb and found them to be seriously adulterated with paraffin. Since that date until the present year, as far as we are aware, no complaints have been made by bee-keepers as to the quality of the "foundation" sold in this country.

In March of this year, however, a request was made by Messrs. Goold, Shapley & Muir Co., Brantford, Ont., for an analysis of certain beeswax they had purchased from the United States, on the ground of suspected adulteration. In the interests of the bee industry it was deemed desirable to accede to this request, and the examination was made. The results pointed to the presence of paraffin in all the samples, varying approximately from 25 per cent to 29 per cent.

Unlike the adulterated "foundation" of 1890, these samples possessed a melting point practically identical with that of genuine beeswax, showing that the adulterant must be of the nature of ozokerite or cerasin—the former a naturally-occurring paraffin and the latter its refined product.

We are informed that the firm in the United States, on the receipt of our report, made no demur to the return of the consignment, a course at once acted upon by the Canadian manufacturers on learning from us that the wax was not genuine.

Ottawa, Ont.

Queries AND Answers

Question No. 1—I lost nearly all my bees last winter and spring, and having a lot of combs that will not be needed this spring, would like to melt them down. Please tell me the best way to do, when I have no wax extractor, so that the wax will be clean and clear. Some of the combs are full of sugar syrup. How shall I get it out? Will it keep for use next fall?

Drayton, Ont.

Answer—To render wax from old combs without an extractor, I have found the following plan answer very well: Break up the combs and press them together as compactly as possible, put them into a bag made of cheese cloth, or any strong sacking; put this bag into an old wash boiler or kettle with water enough to cover it. Place strips of wood beneath the bag to prevent it sticking to the bottom. The bag should be weighted to keep it under water when boiling. The wax will rise to the surface and may be skimmed off or allowed to cool and taken off in a cake.

The combs that are full of sugar syrup I would use again, as far as possible, if the syrup has not fermented in them; or the syrup may be extracted, boiled to kill any traces of fermentation, and used for feeding this fall.

Question No. 2—How can I change my bees from old-fashioned box hives to hives with frames?

Nova Scotia.

SUBSCRIBER.

Answer—I would not advise a beginner to attempt to transfer bees at this season unless honey is coming in freely. The season of fruit bloom is a good time, when the combs are not so heavy with honey, bees are not so numerous and are less inclined to rob. As the directions are rather lengthy, I would refer you to any good text book on bees. A short plan I have found to work well this season is to remove the top of the box hive, or turn it upside down, and place a hive, with bottom removed, filled with frames of good worker comb, right over it, making all joints bee-tight. The bees soon work up into it. Or the old hive may be "drummed" to get them started. After the queen has commenced to lay above, place a queen excluder under it and let it stand for 21 days, or until all the brood in the old hive has hatched, when the old hive may be disposed of and the new hive set in its place.

Question No. 3—Last season a neighbor who grows buckwheat for seed complained that my bees had injured it. Would like to know from a reliable source if this could be possible.

SUBSCRIBER.

Prince Edward Island.

Answer—I am afraid your neighbor belongs to a class who imagine that bees injure fruit blossoms. I have never heard of bees injuring buckwheat; in fact, the opposite is the case. Growers in this district believe that bees or other insects are necessary to fertilize the blossom. Only last week a farmer who has a large acreage of buckwheat asked me to take my bees to his farm.

St. Thomas, Ont.

R.H.S.

Now is a very good time to introduce Italian queens. They are about as cheap as at any season of the year and there is very little danger of loss in introducing a new queen to a colony of bees which has just sent out a swarm.—Modern Farmer.