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THE



CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. 3.

BRANTFORD, APRIL, 1889.

No. 2.

The Canadian Honey Producer,

PUBLISHED BY
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BRANTFORD, - - - - ONTARIO.

Published Monthly, 40 cents per year.

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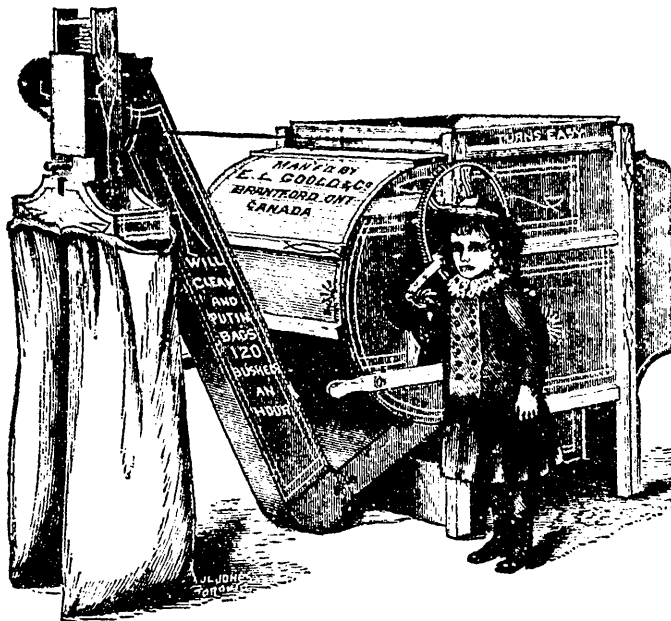
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THE CANADIAN
HONEY PRODUCER.

Vol. 3. April, 1889. No. 2

We are much pleased to notice the large representation of Bee-Keepers which are coming to the International Canadian Convention at Brantford from Middlesex. We learn Haldimand Bee-Keepers are coming in large numbers. No doubt Norfolk, Oxford, Wentworth, Bruce, Huron, Wellington and other counties will send large representations.

A good deal is being said about the virgin queen traffic. The *American Apiculturist* favors purchasing virgin queens. As will be seen in another part of this number of the *Canadian Honey Producer*, the editor of the *Bee-Keepers' Review* does not favor such a practice.

We had a letter from one of the members of the O.B.K.A., who was at Owen Sound, informing us that he had sent the report to the Dailies in which auditors' names were excluded from the list of officers. The reason given was that he was limited in words, and thought that what was in the report was of greater value than that left out. We must of course cheerfully retract what has been said about the matter, after this explanation and accept the explanation in as charitable a manner as we would desire our own to be accepted.

We are sorry to hear that a bee-keeper, close to the Ontario Agricultural College has at last lost all his bees; for some years he has been troubled with foul brood. We are still more pained to learn that he is now trying to dispose of his apiarian fixtures. We know the gentlemen too well to suspect him of doing anything he would think wrong, but he appears to

even now not realize the contagious nature of the disease which has been in his apiary. This foul brood question will have to be dealt with before long, just as contagious disease in other live stock is dealt with.

We did not think it necessary to enter into detail about having paid the membership fee of Mr. Pringle at Woodstock. Of course that gentleman was not present and the fee was returned afterwards. We thought any one would understand the circumstance, and it was only referred to in self defence, and clearly showed there could have been no ulterior motive in not referring to his paper read before the convention.

The *Live Stock Journal* in an editorial says:—

"Bees in common with hens are looked upon by many as but necessary evils on a farm, and hence are slighted by them as unworthy of recognition as wealth-producing factors. The latest returns inform us that nearly 3,000 lbs. of honey was sent to other lands over and above the large quantity used in home consumption. Considering the little encouragement this industry has received in the past, it must be very gratifying to those who are laboring in this direction to know that the apiary has obtained such a foothold in our province. Surely it is worthy of a place at that excellent institution, the Central Farm at Ottawa. Apiculture, like its sister arts, is yet rich in hidden truths, unproved principles, and vexed questions, awaiting the experimenter for solution. As with other experiments so with these, they are too costly, and require too much time and care to be carried on by private individuals. Our American neighbors have recognised this, and have even gone so far as to establish an experimental station with this as its sole work."

We would heartily endorse what has been said in the above in regard to experimental work, but would add: The Ontario Agricultural College

should have such a bee-department; this institution has been so long established the department should be opened.

THE HONEY BEE.

This work by the Rev. L. L. Langstroth and revised by Chas. Dadant & Son, Hamilton, Ills., is at last in our hands. It is very complete both scientifically and practically, and well illustrated. The first illustration is that of Mr. Langstroth himself, and a very good one it is, as we remember him at the convention at Detroit.

The above work gives illustrations of the various parts of the bee accompanied by a description of the illustrations. Illustrations of some of the leading Bee-Keepers throughout the world, amongst them, Mr. Thos. Wm. Cowan. There are over 520 pages in the book. The price is \$2.00 and may be secured from us.

IVAR S. YOUNG.

Much has been said about Mr. Young in relation to the Heddon hive. Unfortunately the number in which he is supposed to charge certain prominent Bee-Keepers with being one of a ring is not to hand. We sent our number to a friend; if any one having the number will send us the copy we will settle the difficulty so far as our evidence goes.

In the meantime we would say this, as regards the merits of the hive, (and this includes the entire reversable system,) we think Mr. Young has come to a correct conclusion.

From what we could judge from so limited an acquaintance of Mr. Young, (about a week,) we do not think he would be afraid to express his convictions anywhere; on the other hand should he so forgot himself as to make any unjust charges he is christian and gentleman enough to withdraw them when made. If he has accused Prof. Cook and Bro. Hutchinson of being part of a ring to boom the hive in

question, the accusation is unwarrantable, their motives would have to be judged in a way we have no right to judge, and those of us who know them would require very conclusive evidence before we would believe them a party to anything underhand.

As it stands one man has testified that Mr. Young has made the statement, another testifies to the contrary and Mr. Young stands in our estimation exonerated.

The word "ring" has to us a very doubtful ring about it. It is a word used by us, but cannot we think, be a literal translation. In such a matter a word means everything, and we should have the literal translation. Mr. Young as many of us know is not an English scholar and it is exceedingly difficult to defend ones self in a language he is not in a measure master of. If Mr. Young has offended we think and believe he would correct himself.

OUR OWN APIARY.

All of March thus far we have had to open the ventilators and trap door every night to give the bees air and shut the trap down almost entirely before daylight. This has quieted many of the colonies, however some remained restless and two starved outright, the indications being that we would have mild weather, we decided to set some of these out, and there we could better examine them and those with diarrhoea could have a cleansing flight. The 11th found three colonies on their summer stands two were very strong, bees being on combs from side to side, and early the following week we think the 19th, found four more out, the remainder appear much quieter and will probably be left in the cellar until the first days of April. We are weighing every colony as it leaves the cellar; every colony we think having been weighed upon entering it; upon this more will be said later, but thus far the loss in weight has been from three to nine

pounds and from this must be deducted the loss in weight from dead bees.

We find the bees next the inner door of the repository show no signs of diarrhoea, but those next the inner wall show very decided signs and we are afraid will be weakened and liable to Spring dwindle.

Whilst upon this subject let us say that whilst doubtless favorable weather may prevent Spring dwindling, just as a favorable winter will be less liable to result fatally to old and enfeebled people, yet the main cause, and if we may so put it the primary cause of this dwindling is poor wintering. The colony we set out to have a cleansing flight, the bees from it drooped and chilled, while those from the others not a bee can be noticed to act in this manner.

From this we should be inclined in future to let a colony have a cleansing flight as soon after they show symptoms of disease as possible.

Those colonies short of stores we have given bee-candy which they soon reduce to a liquid by bringing in water from outside to reduce it to that state.

We have not examined the brood chambers of any for brood, we should have liked to do this but being so adverse to disturbing the bees we stifled our curiosity, therefore cannot tell our readers anything about the matter.

We think we have already given our views on *Stimulative Feeding in Spring*. We do not now practice it though at one time we did. If they are given plenty of stores and kept warm by packing, especially on top, we think that is all they require.

If the colony is below the average, we should take a hive with a division board at each side and packing between them and the outside wall, and contract the chamber, putting the combs in this hive; a cushion on top makes every thing snug.

As to setting out of winter quarters circumstances alter cases. One colony may be restless and require a flight, while others remain perfectly quiet if

it is early and no flowers in bloom. We should advocate setting out the restless colony upon a warm mild day and leaving the others in the cellar until soft maple bloom. The objection may be raised that those first set out may rob those brought out later, whilst they have their first fly this may be prevented by shutting up those set out first until the others have got over the first rush. A cut and dry system will not work, there are so many items to take into consideration.

We are inclined to think when bees begin to find they will shortly be without stores they become restless.

From our views given in this article it will be seen that Spring dwindling should be prevented by proper wintering, but doubtless it may be much increased by constant handling and possibly early stimulative feeding. During the month of April we shall aim at supplying our bees with plenty of stores and then letting them alone. Of course it may be necessary to contract some brood chambers, but this will be done as quickly as possible and the entrance contracted in proportion.

As to prevent robbing the article of S. T. Pettit throws some light upon the question new to us, otherwise of course all but the novice will know that it is necessary to allow no cracks open in the hive sides or the quilt, to leave no combs or sweets exposed and handle your bees as little as it is in your power. The question should be, am I at all likely to do good by manipulation, can I do this in any other way.

For The Canadian Honey Producer.

Priority of Location and other Matters.

BY J. E. POND.

The question of "Priority of Location" has to my mind assumed more importance in discussion than it really deserves, for while in some respects it may be of advantage to Bee-Keepers, in itself the remedy is wholly legislative, and must if used, trench upon "Magna

Charta" and the "Bill of Rights." I am amused however in Bro. Heddon's article on page 10, March issue, when he says, "I have been his principle opponent and now agree with him."

Those who have not read the discussion mentioned by Bro. H. may assume from this statement of his, that I have changed front. To such I simply wish to say that such is not the case at all; I have always advocated the views expressed in the "*Producer*," and for the reason that I have always considered them correct; in fact I can conceive of no way that my or your legal rights can be taken away from us.

SMALL OR LARGE HIVES.

The question of size of hives is now being somewhat discussed, and advocates of most any size are found; the great trouble I apprehend is this: It is impossible to get up a bee hive, that is "the best" for everything, that is to say, that combines all the good points with none of the faults possessed by the ordinary hive. The logical conclusion is then, that we must compromise the matter by adopting a happy medium. Size alone considered we want a hive large enough to accommodate any colony; or that we can fill up to the size of a large colony if we desire. It has been conclusively proved that one large colony in the honey season, will gather ten times more honey than three small ones. The reason of this is obvious to the Bee-Keeper of experience, and needs no arguments or illustrations from myself. We not only want plenty of bees when we do want them, but we want a hive such, that they will give us a good yield of surplus in form such that we can dispose of it. There are various other factors in this problem, but they are so well understood, that it would be pedantic to allude to them here. Enough to say, what we want is a compromise or all purpose hive, one that will hold bees and surplus honey, and one in which we can winter safely. I do not purpose now to open up the question of ventilation, as it is too big, and applies only so far as it does apply to wintering, but merely to give my view as to what an all purpose hive is. For over 20 years I have experimented with all sizes and shapes of hives and have found "the Simplicity Langstroth hives" comes the nearest to my re-

quirements of any. I use the ten frame hive 14½ inches wide. With this hive I can rear all the bees needed and at as early a date as is desirable. It can be contracted with little trouble, even down to a single frame. (On this question of contraction however I shall have a word to say at some future time.) For surplus comb honey I have never found anything superior, and for tiering up purposes, nothing better can be found. The tiering up system I believe to be the system, and the longer it is used the better it will be liked. By its use, contraction can be carried on as far as needed or desired during the honey flow, whether at its beginning, its height or its close.

The article of Bro. Demaree on page 10, &c., March, *Canadian Honey Producer*, gives my views on contracting so far as it is generally made use of. There is another form of contracting that I shall make the text of another article, and in which I shall touch on the winter problem. In writing an article, one expects to find all sorts of readers; both the expert and the novice. The expert may criticise, I care not, but to the novice I say take the "Simplicity Langstroth hive," in its inner dimensions or (in my judgment after 20 years' experience) being the best form and size to adopt, whether surplus, comb or extracted honey, is the object desired. Space will not allow me to give my full reasons, but when I state that I have no hives to sell, and no one in the business that I care to advertise, it will be seen that I have no axe to grind, and only wish to give the novice the benefit of my opinion. The fact however that more of this hive than of all others combined are in use by the ablest Bee-keepers of the world, shows that I am not alone in my opinion, and that the clap trap attempts of would-be workers for their own aggrandisement, have not as yet prevailed against the common sense of the community at large.

North Attleboro, March 15th, 1889.

For The Canadian Honey Producer.

Spring and Summer in the Apiary.

BY G. W. DEMAREE.

When the question has been asked if it is profitable to feed bees in the Spring, I have always answered that it does not pay to feed

in a general way for stimulative purposes, except in cases where the bees are scarce of stores. I still adhere to this opinion. I have experimented in this line largely and have found that if a colony is well supplied with stores it will build up in the Spring with less waste of vitality than a colony which sustains the excitement attending constant feeding, and will be able to stand up to better solid work when the honey harvest arrives.

Notwithstanding this as a fact in a general way, I can produce surprising effects by feeding a pint of warm thin syrup once a day when the weather is warm in the early Spring, and keep it up at all suitable times till the blossoms afford work for the bees. When it is desirable to do so, swarming can be forced ahead of the usual time, and on a small scale the Bee-Keeper may get considerable satisfaction and some profit from judicious stimulation of his bees. Sugar syrup alone does not produce as marked effects as does honey or a mixture of honey and sugar made into a thin syrup. It will surprise most people to discover how much heat can be raised in the brood nest in the early Spring by feeding regularly a little diluted honey. Every Spring I stimulate a few colonies for experiment, and for any practical use I may have for colonies full of young bees early in the season.

Query No. 59 in C. H. P. has a wonderful variety of answers. The Querist wants to know if any unrefined sugar will answer for food for bees in the early Spring. The Querist must feel badly perplexed to know which is true the "Nos" or the "Yeses." In deciding a matter of this kind *condition* must be taken into consideration. The winter just past has been an unusually moderate one, my bees have not been confined to the hives longer than two weeks at any time and I have wintered a number of colonies, some of them nearly exclusively, and a good article of brown sugar mixed with honey, and made in the form of soft candy which was packed in frames 6-12-1 $\frac{1}{2}$, and the frames full of soft candy were laid on top of the brood frames right over the cluster of bees and covered up warmly. These colonies have wintered splendidly. I have also wintered a number of colonies on granulated honey packed in frames just like the sugar candy.

Last winter (1888) was a severe winter here, and in my experiments moving some colonies from the cellar to my office at intervals of ten days apart, where they were subjected to a high temperature while stripped to the wire cloth cover, for five or six hours at a time. One of the colonies was fed on damaged (sour) honey and on coarse inferior sugar without any bad effects; in fact they seemed to do well on any kind of food I gave them.

My experiments showed that bees can bear long confinement and live on inferior food if the conditions are made right.

HONEY BOARDS AND PERFORATED EXCLUDERS.

A Bee-Keeper of experience when reading the bee-journals cannot fail to see that many mistakes are likely to be made by the inexperienced in the indiscriminate use of the slat honey board and the perforated queen excluder. The slat honey board or any kind of honey board is of no use except to keep the bees from building brace combs between the honey board and the bottom of the section case or extracting case. After trying them a long time I conclude that there is really very little to be gained by their use at any time. The bees will fasten the honey board to the top bars of the frames and if the honey board is to be taken off, it is a bigger job to do it than it is to clean off the wax from the bottom of the cases when practicing the tiering plan. The perforated excluders are of no use in my apiary practice, except to keep the queen out of the extracting cases, here they are at their best service. I also use them sometimes when hiving swarms, but they are wholly out of place when put under section cases, if the bees are properly managed.

BEES ENTERING THE SURPLUS CASES.

It is truly astonishing to me to see so much in print about the difficulty of getting bees to enter the surplus cases. Surely much of it comes from men of little observation. Bees never delay to enter the surplus cases in my apiary if there is any work for them to do in the fields. It occurs to me that this is a trumped up complaint to injure the reputation of the Italian race, to push the claims of some other variety or varieties of bees that require less time and skill to get queens off to market. The old cry in favor of "dark

Italians" had the same origin. In my opinion many have cried down the Italian race of bees, especially the pure light colored type because they have characteristic markings that makes them capable of identification and it is more convenient to rear and sell queens and bees that don't tell on their own breeding and on their breeder. Better working bees I have never met than my light colored Italians.

Christianburg, Ky.

For the Canadian Honey Producer.

Robbing: How to Prevent It.

S. T. PETTIT.

During the first four or five years of my experience in the bee-keeping line, robbing was my Ireland in the British rule; all devices and schemes however well thought out, as I supposed, would fail and there would still be trouble. I was perplexed, annoyed, and sometimes almost discouraged, and just about resolved to give them "Home Rule" and let them settle their own family disputes, but at last I found out that a great deal of trouble arose from too much managing and meddling, to which reference will be made further on.

There are several leading features to be observed in achieving success.

First, a heavy dash of blood from any of the yellow races will help over the difficulty greatly.

Second, bees must be in a healthy and normal condition, no sour dripping food in sickly stocks should be tolerated for one moment. Very weak stocks are a nuisance and should be treated as such in a merciful manner, the sooner the better. Empty combs and hives are of more value in swarming time.

Next thing in order is the proper placing of the hives. These should be placed facing the south, without a question in my mind. When placed in this way the prevailing winds will blow either directly into the hive or past it in such a manner as to assist the bees in detecting the robbers. That I may be better understood, I will explain that when hives face the east or north the prevailing winds drive the air through the hive and out at the entrance. Now this hive air, as it flows out will completely envelope, saturate both guard bees and robbers, which makes it very difficult for the guard bees to detect the robbers with

immediate certainty. Hence under these conditions guard bees will often act in a faltering, hesitating, doubting manner, and at once, robbers—experts at the business—will "twig" the situation, light at the entrance, make themselves appear familiar and at home, and thus disarm the guard bees and gain access to the stores, in a measure unmolested. And beside all this the air flowing out at the entrance attracts robbers and encourages them to continued and greater efforts.

Another very important point; don't "spring newt" your bees to death. All hives should have loose bottom-boards, which in some cases (not all) should be exchanged for clean ones. Next ascertain by gently lifting each hive, (this I do when placing out of cellar,) that they have plenty of stores. Then after properly adjusting the entrances, just let them alone. What in the world do you want to "go through them" for? It is sheer nonsense, an unmitigated evil, inexcusable folly. If you must gratify a morbid desire to be cruel and torturesome to a sensitive organization, tickle your eye-ball with a barley-beard or twist a straw up your nose until you are satisfied, and for mercy's sake do let your bees alone, and I promise you they will guard against robbers all the better, yes, and build up much more rapidly for business when it comes.

Weak stocks will often if left serenely alone guard against robbers and pull through, but once you "go through them" and let the warm hive air escape they become demoralized, discouraged, and in nine cases out of ten, ruined.

A properly adjusted entrance is also an important factor. It is difficult to give specific directions about the size of entrances, discretion must be used; the entrances must be in proportion to the numerical strength of the bees. Bees should be satisfied—pleased with their entrances. If they are constantly gnawing and trying to enlarge their entrance they are partially off guard and robbers will find it more easy to get in. Entrances should be from half inch to six inches by three eighths, usually about three to four inches in spring and enlarged as season advances. After the honey season is past don't make your bees uncomfortable by short entrances. I have mine from eight to seventeen inches until cool

weather sets in. Impure, suffocating air in a hive induces robbing.

Belmont, Ont. March 15th, '89.

P. S.—It is not an unusual thing for Italians to quarrel with members of their own family and get up a general and exciting racket, which is sometimes mistaken for robbing. More air and a larger entrance will bring quiet and peace in a very short time.—S. T. P.

Wintering Bees in Light Cellar.

HENRIETTA F. BULLER

Until recently I have always been under the impression that it was necessary to have the cellar or house for wintering bees in, perfectly dark, though I had now and then read statements to the contrary in the various Bee Journals. There is a saying, "seeing is believing," in my case hearing has been believing, as I have it from a perfectly reliable eye witness that one, Mr. Lane, in the adjoining township of Percy, winters his bees with the greatest success, in a cellar lighted by two windows.

He has two compartments in his cellar, in the inner compartment he keeps his roots and in the outer one his bees, (about 100 colonies.)

There is constant passing to and fro through the cellar where the bees are, to the cellar in which the roots are stored, to which the bees seem quite indifferent, as also to the light from the windows, until towards spring. Mr. Lane says they begin to get restless and fly to the windows, which he then darkens. He says he seldom loses a colony in the cellar but last spring several by spring dwindling after he set them out; and now in regard to spring dwindling I will remark that I quite agree with Mr. Pettit in the last two paragraphs of his article on "a cellar for bees," in the Feb. No. of the C. H. P. and have attributed my immunity from spring dwindling so far, in a great measure to my bees not breeding in any extent in the house.

In our changeable springs I have no doubt it would be a great benefit if we could give our bees some protection after they are set out, but short of packing a great deal may be done to retain the heat in the hives, by putting layers of paper and a cushion or warm quilt, in the cap, and leaving them on till settled warm weather.

Campbellford, Ont., Feb. 21st, '89.

We should like to find out the temperature at which the cellar is generally kept.—Ed.

For The Canadian Honey Producer.

SPRING FEEDING.

If my bees were not well filled with honey in the Spring I would feed steady as soon as the weather would allow me to. I winter in sawdust clamps on summer stands, the result has been good with me when done regularly until honey appears in the field. Feed inside or on top of frame by filling empty combs laid on top.

Keep the entrance as close as possible while feeding to prevent robbing. If I had frames of honey I would remove empty frames and put full ones in their places.

CONTRACT OR NOT.

I would not contract the brood chamber unless the colony is small. If so, put them on two or three frames that they will cover to keep warm and spread out as fast as they require when the weather gets warmer.

TO PREVENT ROBBING.

I generally shut up the robbed ones early in the morning before they start to fly, and open them at night as soon as flying is over to give air. If the robbers cluster bad at the entrance, smoke them well with a little tobacco in the smoker with the wood. Two or three days generally settles the trouble with me.

SPRING DWINDLING.

I think if good clover honey and lots of it is put in in the Fall in good time there is not much danger of bees dwindling to hurt, if they are dry and not too hot to sweat and get mouldy. The greatest trouble with myself in outdoor wintering is the bright sunny days of March, they fly out and perish in the snow, and to shut them in is just as much loss, they worry to get out and die just as fast.

If any one could tell me how to prevent early flying in the sunny days of March I should be pleased. My entrance is as close as can be to admit fresh air.

Yours, R. W. R

Annual Meeting of the Middlesex Bee-keeper's Association.

Strathroy, March 13th, 1889.

Sixth annual meeting of the Middlesex Bee-keepers' Association.

Meeting called to order by the President, F. Atkinson, at 1.30 p. m., in the Fireman's Hall. Fifty present.

Sec'y Treasurer Humphries was called upon to read the minutes of last meeting and submit report.

Minutes read and approved.

Treas. reports that he has received \$10.00 for membership fees, and \$35.00 from the O. B. K. A., \$17.00 of which has been paid out for prizes at Ailsa Craig and Parkhill Fairs, and that Strathroy was offered, but refused to accept any money from us as an association to be given in prizes for honey. Printing, etc. \$13.00, leaving a balance in Treas. hand of \$15.00.

Moved and seconded that the reports be accepted.—Carried.

Nominations and elections being now in order, the President asked for nominations for President.

Messrs. W. J. Wilson, of Greenway and J. B. Aches, of Poplar Hill were the candidates. W. J. Willson was elected.

Mr. Jas. Hearley of Strathroy, and J. B. Aches were the nominees for Vice President. Mr. Aches was elected.

Mr. A. W. Humphries was elected Sec'y Treas. at a salary of \$5.00 per year.

Representatives to Western Fair Board in London were James Harley, Strathroy and W. J. Wilson, Greenway.

Representatives to Ontario Bee-Keepers Association, A. W. Humphries, Parkhill and F. Atkinson, Ailsa Craig.

Representatives from the Association to attend the International B. K. A. meeting to be held in Brautford, Nov. 15th. James Husband, Cairngorm; J. B. Aches, Poplar Hill; James Hearley, Strathroy; John Morgan, Kerwood; W. J. Wilson, Greenway; F. Atkinson, Ailsa Craig; J. W. Gibson, Strathroy; A. W. Humphries, Parkhill; Thos. Wakem, Glen Oak; J. W. Parker, Strathroy; Edgar Husband, Cairngorm; L. J. Hixon, Glen Oak; Truman Crealey, Strathroy; Wm. Ireland, Strathroy.

Moved and seconded that the following accounts be paid viz:—J. Darrach, \$2.50, Evans Bros. 50c, Age, 50c, F. Atkinson, \$1.25—Carried.

Moved by J. Hearley, seconded by J. Henderson, that the next meeting of this association be held in Parkhill.—Carried.

The Sec'y here read excuses from members of the association who were unavoidably absent: D. Smith, Thedford, W. L. O'Neil, West McGilivray, D. A. Jones, Beeton, R. F. Holtermann Brantford, and others among who were S. T. Pettit who had given his promise to be present but as he had heard that there had been a case of small pox in London some time ago he wrote a note to the Secretary at the last moment saying he was afraid to pass through the city to come here from his home in Belmont (laughter).

The President here vacates the chair. The new President takes his place with Vice Pres. Aches by his side. After a short address by President Wilson who thanked the meeting for the honor conferred upon him and promising to fulfill the duties devolving upon him to the best of his ability—the question drawer was opened and a very interesting time it was to every bee-keeper present.

1st. Best method of feeding bees in March and April? Mr. Aches answers by saying. "Lest the public should think that by our answers we feed bees sugar or anything else to make honey which they offer to them, he would say that bees were only fed when they are short of honey in the fall or spring and it was to sustain life and for that only were they fed, he agreed with the Secretary that it was best to feed them honey if you had it but rather feed them sugar and let them die, you may feed them granulated sugar, syrup by means of feeders in the cellar, candy rouses them up. It is no trouble to feed them on a fine day out doors, but the right time to feed them is in October. If they are short of stores then give them enough to live on over winter if they are in the cellar keep them dark and quiet, and even temperature and they will consume less stores.

J. W. Gibson says to feed them in the cellar with candy is the best.

Mr. Ireland says he kept his bees in the cellar and fed them every week one winter and got along well and had extra good swarms and early—but this year though he followed the same plan he had lost half his stock. This bothers the most expert bee-keepers. My bees do lots of swarming and are the earliest in the district to swarm. I feed granulated sugar.

What is the best kind of a cellar to winter

in? Answer; Frost proof, well ventilated, even temperature and dry. Wm. Buttery says he has kept bees for 40 years in clamps and has had good luck and bad, has wintered in a dry cellar when there was a furnace on one side and was the most successful. Mr. Stewart asks if they can be buried to advantage. A voice—Do you mean hybernating (laughter.) Mr. Stewart says he is not joking. Mr. Buttery and Mr. Aches both say they have buried bees and kept them well and they did not use so much stores.

Which is the most profitable to live, swarms on comb, full sheets of foundation or starters? Answer, 1st. comb 2nd. full sheets 3rd, starterr. Unless it be mouldy or drone comb which should not be used at all.

How do you manage a swarm when running for comb honey? W. J. Gibson says, fill the section with foundation, give them a start, put between the sections and hive a zinc queen excluder and give them plenty of room above.

Is it an advantage to divide colonies instead of natural swarming? Answer—Yes if you want to run for increase or for stock. J. W. Gibson has successfully divided up one colony into six.

What is the best way to manipulate bees to prevent spring dwindling.

The weather has most to do with it, put thick cushions on, keep them warm as possible. Mr. Buttery took 14 hives out too soon, he covered them over with blankets, had a hard time but saved them. Mr. Aches says, keep them well supplied with stores, let them have a fly, then tuck them up well.

Why does honey granulate? Answer—cold weather, none but pure honey will granulate.

If you don't want to increase your stock, how do you manage then? J. W. Gibson says, pile one hive on top of another, take out the queen cells watch them close.

It was then moved by A. W. Humphries, seconded by F. Atkinson, that market reports in quoting honey be requested to make a distinction between extracted honey and strained honey. Extracted honey being free from the taste of the comb, bee-bread, dead bees, etc., ranks higher than the strained honey. Is it positively necessary that a young queen should be put in a hive when dividing?

Answer, Yes, if you want to gain 20 days time.

Why not have the next meeting at London?

Because nobody asked us to go there and the bee-keepers in and around that city have not come near us, many not knowing however that ours is the largest Bee-Keepers' Association in Canada and that we number nearly 100 members and seldom have less than 75 present at our meetings and that we include in our membership some of the most prominent and successful bee-keepers in Canada.

Moved by Mr. J. Husband seconded by Mr. A. Hunt that the motion *re* next meeting be in Parkhill, amended by striking out Parkhill and that London be substituted. Motion lost.

Master Eyron Aches stepped forward and read a paper for his father, Mr. J. B. Aches, entitled,

BEE-KEEPING AND HORTICULTURE,

Mr. Chairman, Ladies and Gentleman: We have assembled here together at our annual meeting of the Middlesex Bee-Keepers' Association to consider that which pertains to the best interests of our pursuit, and our time is short to consider the important subjects which will be presented. I am here to-day as a member of the Ontario Bee-Keepers' Association to assist as best I may in throwing light upon the subjects brought before us, especially pertaining to bee culture. It is with pleasure I come before you and while the last year of our decade has been discouraging from one point of view, from another we have most encouraging prospects. The dearth of honey has not only established paying prices, but has been the means of clearing out honey which has been held by dealers for years and to me the prospects were never brighter. Yes, we have reached a crisis in the history of bee-keeping which must be acknowledged to be of national importance. The question no longer remains, shall we commence at all? Or shall those of us who are already engaged in it continue. I now say without fear of successful contradiction that the possibilities of bee-keeping have never been reached. I need not mind any one who plants trees and grows fruit of the pleasure that thrills the soul when nature responds to his intelligence, thought and careful direction. He lives in a world of his own, a land where milk and

honey flow—in Middlesex, right here in our own vicinity. He needs no other intoxicant to complete his happiness.

Bee culture like Horticulture is one of the fine arts. It requires the skill of a master. It is just as impossible for the thoughtless, brainless clod-hopper to reach the highest round in the ladder in propagating fruit as it is for him to enjoy it after it is grown. But after all man's skill in planting, after ransacking the earth for improved varieties, after propagating, grafting and hybridizing, he must rely mainly on nature's methods of fructification. The favoring winds and industrious bees are needed to fertilize the blooms to insure a harvest of fruit.

As a means of accomplishing this end there is no question but that the bee is of great service to the growers of fruit. No other insect is multiplied in such vast numbers so early in the spring when their agency is so much needed to fertilize the orchards and small fruits. If the wind were the only means of carrying the pollen from flower to flower how often would fertilization fail from too much or too little wind during the brief opportunity when the bursting buds are sighing for the life-giving dust from the neighboring flowers, so the bee introduces itself to the horticulturist at once as his friend. The latter should meet it halfway and acknowledge its twofold service. It does him a service while on his daily rounds in search of food for itself and young, and again by storing up for his benefit the liquid sweets which it does not need itself, and which ungathered, vanish like the morning dew.

Like the manna which the Israelites ate of, the ungathered portions melted when the sun waxed hot. What then is there to hinder these two vocations going hand in hand since each is helpful to the other, they ought at least to be on friendly terms, each furnish inducements for the other to exist. A great deal has been said about bees injuring fruit; some fruit growers have charged that they puncture the ripe grapes, suck the juice and destroy the crop. But from the physical structure of the bee this is shown to be impossible by scientific entomologists. It has no joints like the hornet. It is made to suck and not to bite and after close observation and repeated experiments it has been found that when

bees are discovered helping themselves to ripe fruit that the skins had been ruptured by the weather or from over ripeness or that a hornet, or wasp, or birds had first been the depredators. After the skins have been broken from any cause, if there is a scarcity of honey, the bees, always anxious to be doing something, endeavor to share of the plunder. Therefore, as to bees injuring fruit, I, as their attorney shall claim to the jury that the charges are not proved.

Moved by Mr. John Morgan, seconded by Mr. J. Husband that a vote of thanks be tendered the retiring officer, Pres., Vice Pres. and Sec'y, also to Master Byron Aches, for reading so nicely his father's essay.—Carried.

Moved by Mr. Atkinson, seconded by Mr. Aches, that a vote of thanks be tendered the Town Council, for the free use of the Hall this day to hold our meeting in.—Carried.

Moved and seconded that next year the business be done in the morning, roll called at 10 o'clock, then the afternoon will be taken up in discussion on various subjects and reading of papers, etc.

Meeting then adjourned to meet in Park-hill at the call of Sec'y Treas.

CORRESPONDENCE.

The *Canadian Honey Producer* is a very welcome monthly visitor, may good success attend your publication. The past year was the worst honey year that I have seen, the coming season will be something better but not up to the average. My reasons are, the Alsike clover will be a small crop and the Basswood flowered largely last year, as a matter of course the bloom will be light this year. I put 21 colonies into winter quarters. I think they are all right so far.

Yours, etc.

THOS. RAMAGE.

Richview, March 9th, 1889.

Our bees appear to be wintering well.

WM. COUSE.

Streetsville, Feb. 9th.

I swept up the dead bees from forty hives in the cellar and there were about two gallons, which is not many.

W. COUSE.

Streetsville, March 14th, 1889.

The bees in this part of the country are very short of stores and the most of them will have to be fed. The coldest morning has been 6° above zero. I am pleased with the *Honey Producer*.

Yours, etc.

F. TOEWS, JR.

Old Town, Green Co., Ohio.

My bees are in splendid condition in the cellar, never were better at this time of the year. Some of them are breeding and gaining in numbers.

DR. A. B. MASON.

Auburndale, March 5th.

FOREIGN.

The value of honey, imports during the year 1888 for the United Kingdom was £23,609.—*British Bee Journal*.

The *British Bee Journal* quotes from *The Daily News* as follows: In the last agricultural statistics for Ireland, state in the whole island there were 28,569 swarms at work, of which 9,135 or nearly one third were kept in "hives having movable frames." The quantity of honey produced was 459,386 lbs. or an average of 16 lbs. per hive. Of this total yield nearly half was gained from the new fashioned hive, so that while the average store of a swarm kept in one of them was 23 lbs., that of a swarm living in the less commodious dwelling was only 13 lbs.

SUNDRY ITEMS.

The Queen Breeders' Journal says: "Give plenty of attendant bees to every queen you send away. The more the merrier. The Peete cage will accommodate about twenty-five attendants and a queen."

Perhaps this is correct, however we have for some time been under the impression that too many bees might be put in with a queen, now the Q. B. J. has taken the subject up we hope to hear more about this question.—ED.

Don't waste your money on cheap imported stock. What is the matter with a first-class American queen for excellence? They are good enough for us. We advise improving what we already have and importing less.—*Queen Breeders' Journal*.

The Time to sell Honey.

November is the month in which the honey crop should be sold out, says C. H. Dibbern in the "Western Plowman." If that is not possible, make it a point to do so before Christmas, as after that time it is usually dull and harder to sell. All the comb honey should be overhauled and scraped of propolis as soon after it comes off the hives, as time can be spared. It should then be graded, and crated in neat new cases, weighed and marked. All extracting must be finished up early this month, as the honey is hard to remove from the combs in cold weather, and the combs are liable to break.—A. B. J.

Answers to Queries for March.

No 61 Are bees more inclined to swarm with a large or contracted brood nest?

If the larger brood nest is as full of bees in proportion to its size as is the one that is contracted, the larger one is the most likely to swarm.—A. B. Mason, Auburndale, Ohio.

With contracted brood nest.—Robt. H. Shipman, Cannington, Ont.

With a contracted brood nest.—Ira Orvis, Whitby, Ont.

If the Queen is confined to the brood nest they are more inclined to swarm, but if she has free access to the supers, and if the supers contain comb for extracting and extract as soon as filled with honey they will very seldom swarm.—Dr. Duncan, Embro, Ont.

With a large nest I say.—D. P. Niven, Dromore, Ont.

More inclined to swarm from a crowded or contracted brood nest. I have often forced early swarming by rigid contraction.—G. W. Demaree, Christianburg, K'y.

With medium sized brood nest they swarm more. A very small one keeps them too weak to swarm, while a very large one retards swarming by the satisfying influence that more room affords.—S. T. Pettit, Belmont.

Bees in a small hive are more inclined to swarm than in a large one and I believe contracting would have the same effect.—A. D. Allen, Tamworth, Ont.

With one contracted.—E. L. Pratt, Marlboro, Mass.

Contracted.—Dr. C. C. Miller, Mariago, Ill.
Contracting the brood nest will induce swarming.—L. C. Root, Stamford, Conn.

Bees having a medium sized brood nest are more likely to swarm than if the brood nest is either large or very small, but if a swarm is hived in a contracted brood chamber it is more likely to swarm out than if hived in a large brood nest.—R. L. Taylor, Lapeer, Mich.

They are more inclined to swarm with a contracted brood nest.—Frank A. Eaton, Bluffton, Ohio.

More inclined with a contracted brood nest.—C. W. Post, Murray, Ont.

In early spring before warm weather and before the flowers secrete nectar, in a large brood nest. When honey is being gathered rapidly in a contracted brood nest.—J. E. Pond, North Attleboro.

With a contracted brood nest and super on, the bees will likely store the honey above and will not likely swarm as soon as when there is a large brood nest and the colonies not very strong, and bees very often store honey below, and swarm, before they work in the super.—Wm. Couse, Streetsville, Ont.

Speaking generally they are. However, there is a grand fact in this connection that bee-keepers do not seem to be aware of. It is this, that in a moderately contracted brood nest, if a properly constructed queen excluding honey board is placed over it and a large super with a little natural comb in it, the disposition to swarm is not greater than in any hive of the same dimensions. By "moderately contracted brood nest," I mean one large enough for brood, or as I have found by much experience, one to contain 830 square inches of brood comb. Place any needed stores above such a brood chamber and we have all the control of swarming that is necessary. I should further qualify this answer by saying the queen excluding honey board should be a wood and zinc one. The zinc strips should be only $\frac{3}{4}$ of an inch wide and have two rows of perforations, and the wood slats should come within 1-32 of the perforations in the zinc. This construction enables the bees to pass through the brood as readily as if it were not in their way, and the double rows of perforations set alternately with the brood frames, opens up the top of the hive perfectly, so that though the brood chamber may be small a large hive is practically made by putting on the supers. A brood chamber too small for brood, and especially, if it contains less than 700 square inches of brood comb, is a pest and

will give any amount of trouble from swarming. Some sad experiences of this nature have been had by many of the new hive experimenters.—Dr. Tinker, Ohio.

Very little experience in contraction.—Ed.

No. 62. Will feeding in the fall for winter stores, when a little honey may be gathered, prevent them foraging for it?

No, and it will make them more anxious to forage, and if not properly fed they may try foraging on their neighbors.—A. B. Mason.

Not much, if you feed properly. Give enough at once to do the colony all winter.—Robt. H. Shipman.

No.—Ira Orvis.

Feeding will not prevent, it will only stimulate to forage more.—Dr. Duncan.

Cannot positively say not having observed closely.—D. P. Niven.

Not if the feeding is done at night so as to be out of the way by morning.—G. W. Demaree.

Yes, generally.—S. T. Pettit.

Yes, do not feed till the honey season is closed.—A. D. Allen.

No, shake into upper story or on alighting board and the honey will not be lost.—A. D. Allen.

No.—E. L. Pratt.

Hardly, but it might be well to feed at night.—Dr. C. C. Miller.

No.—Dr. Tinker.

Very likely it may to some degree but that should not induce any bee-keeper to delay feeding.—L. C. Root.

It would have some tendency in that direction while the feeding is continued.—R. L. Taylor.

No, it will cause them to forage more.—Frank A. Eaton.

No, it will stimulate them up to greater activity.—C. W. Post.

It will not, but I should not adopt that plan but should feed enough for the winter at once.—J. E. Pond.

Yes, to a great extent.—Wm. Couse.

If you feed a little each day it will be liable to make the bees forage more. Feed as quickly as possible.—Ed.

No. 63 Is there no other way to get bees off the frames without shaking? because when there is new honey in the combs it will splash out.

Certainly, pick them off. If you havent half enough to do it as rapidly as you would like, brush them off. If your object is get-

ting the bees off the frames so as to extract the honey from the combs, why not wait "shust a leettle" and let the bees fix it so it wont splash out. Don't spoil your market by trying to sell unripe honey.—A. B. Mason.

I do not know of any unless you smoke them off.—Robt. H. Shipman.

They may be brushed off.—Ira Orvis.

Yes, they can be brushed off with a large stiff feather very nicely.—Dr. Duncan.

Brush off with a quilt.—D. P. Niven.

No other way except the use of the brush broom. I use a brush broom made of broom corn and when there is any reason why I do not wish to shake the combs I use the brush exclusively.—G. W. Demaree.

Yes, brush them off, if you find it absolute-ly necessary to clear the combs at such a time.—S. T. Pettit.

Yes, with fine brush, but suppose a little honey does shake out, what of it?—E. L. Pratt.

You can brush them off.—Dr. C. C. Miller.

When honey is very thin I shake less and brush more of the bees from the combs.—L. C. Root.

Yes, brush them off with a quilt or brush made for the purpose.—R. L. Taylor.

Brush them off with a yuca brush or better still a soft table or crumb brush.—Frank A. Eaton.

I think not, but why shake them at such times? The honey is not fit to extract.—C. W. Post.

I use a brush when the frames cannot be shaken without throwing out the thin honey.—J. E. Pond.

Brush off, or smoke will drive the greatest part off and then brush.—Wm. Couse.

Yes, shake the comb lightly and then brush off the remaining bees with a little hand broom. A little tact is necessary in using it. It should be used by a quick movement, tripping up the bees.—Dr. Tinker.

The handling done at such a time should be so rare that the amount of honey lost will give no gray hairs.—Ed.

QUERIES FOR APRIL.

No 64 What thickness of straw or chaffpacking, or dead air, would be required for protection round a hive, with the temperature at zero or a little below? Would an arrangement that gave three inches of dead air around the sides and ends of the hives, and room for a cushion five inches thick over the frames be sufficient?

No. 65. How many bands should a pure Italian worker bee show?

No. 66. What constitutes a pure Italian bee?
MAX.

No. 67. Do bees relocate themselves upon being set out after being in a winter repository? Are you positive about your reply from your own observation?

No. 68. Do you think it advisable for Bee-Keepers generally to purchase virgin queens instead of untested or tested? Giverason for answer.

No. 69. How long should the drone cell be capped before I can start to raise queen cells?

JUNE.

No. 70. Is honey injured by being stored in cells from which successive generations of young bees have emerged?

No. 71. Does it pay better to buy an Italian colony in 8 or 10 frame Langstroth hive of average strength, or a box hive of average strength and black bees and transfer and Italianize them? I raise my own queens. Time of purchase of colonies May 1st. Price of the latter, \$4.50, of the former, \$7.00.

No. 72. I have three colonies to start the season of 1889 with. I want to make the largest possible sure returns out of them, how shall I do it?

JULY.

No. 73. Would it be a good plan to put a chamber of empty combs under the brood chamber when the honey season opens, to prevent swarming. The super is to be put on top of the brood chamber for surplus honey. There is to be no perforated metal honey board between the brood chamber and chamber below?

No. 74. Can you suggest any way to advance the interests of Bee-Keepers and make their calling (A) more remunerative, (B) their crops more certain, (C) their losses less frequent in wintering.

No. 75. There are large fields of buckwheat, nearest 4 miles away. I have fifty colonies, a horse and rig, my own time is worth \$1.25 per day. Will it judging from past results pay me to move my bees to this locality?

AUGUST.

No. 76. Does the care observed in handling bees influence the temper of the bees throughout the apiary.

No. 77. Do you think anything could be accomplished by selection in breeding towards successful wintering?

No. 78. (Referring to query 74.) How would you do it if you could?

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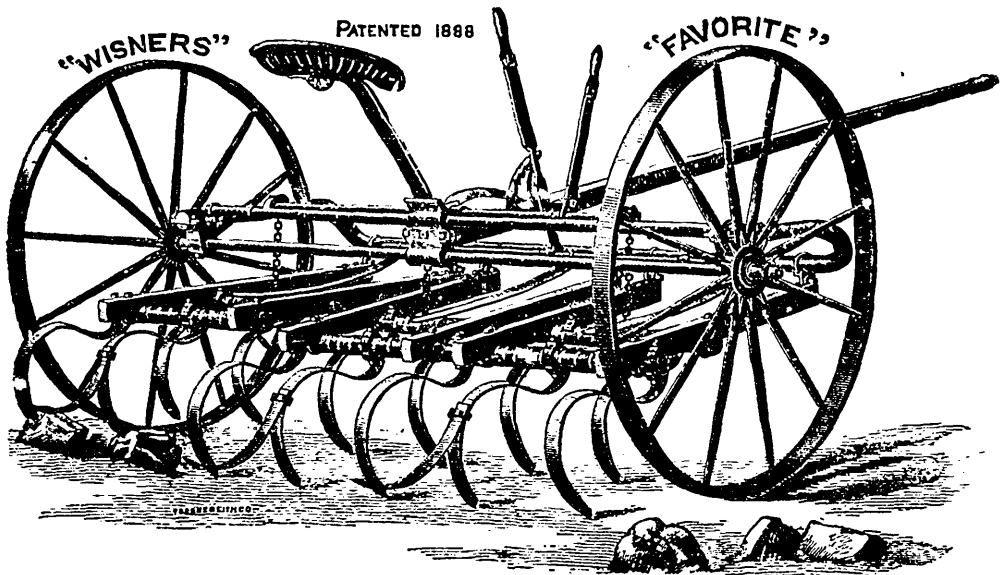
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