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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES
VOL. LII, No. 9.

BRANTFORD, ONT., MAR., 1897.

WHOLE NO.
385

Last month just at the moment of going to press, I received news which I felt justified me in announcing a comb foundation with that comb was being made with deep cells.

It was not produced in any way to make it at all sure that an article of so great a value could ever be sold at a price to be of practical value to bee-keepers. I did not think any one would doubt its utility. Comb foundation has been a study to me for years. I believe I was the first to publicly and extensively experiment with comb foundation, and the work was undertaken when I was head of the apiarian committee of the Ontario Agricultural and Experimental Union. Let us look at the use of fish bone in honey. Comb foundations made at the present time, may have generally has too much wax in the base always has a great deal more than it usually has in the side wall. Why is this? Because we have not had the appliances means of which we could put it in depth and a certain strength was required to the sheet, and to get it we had to put it in the base, or a little better the thickness of the side wall. Next let us examine the way in which the bees utilize the foundation. I have seen the base untouched and thinned to the weight of the natural. I have seen the sidewall utilized to a greater extent, but I have yet to see the example in which the wax in the side wall close to the base is touched. There is to be something there which cannot be manipulated. When I have argued that they want

plenty of wax in section foundation, I have taken this ground and I think tests and reason will bear me out. Picture to yourself, or next summer examine comb foundation when the bees are working it out, and they have a flattened surface upon which to rest when working out the comb foundation. You will see that not many bees can work at the foundation, their bodies cover a very large portion of comb compared with the amount of comb their mandibles can at the same time grasp and work out. If the honey flow is light, or the swarm weak there is no hurry and the bees can take their time, and thinning out is done fairly well with the exception of the base of the side wall. But when there is a rush, a strong swarm and a heavy honey flow, the bees storing, crowd the comb builders and instead of the gatherers remaining idle, the comb builders build in the quickest way, they leave the base untouched, the side wall largely untouched, and they add wax of their own secretion and deepen the cell. I therefore say, and have said, we must provide for the most unfavorable conditions for thinning out base and side wall, as when foundation is put in we rarely know under what condition it will be drawn out. I know there are a few good bee-keepers who put rather heavy foundation in sections, but let them allow me to test their section honey after it is finished, and, if the result is not as stated in the above, I will pay five times market value for every section I try. Fish bone as generally known, comes from originally heavy base or side wall of

foundation and not from texture of wax. Mr. Hutchison in the *Review* says. "Once snow is melted, it never can be restored to its state. It may be frozen again, but it will be hard and solid, it will be ice. Of course, nature can evaporate the water, and form it into snow again, but man cannot restore it to snow."

This is an unfortunate instance, Brother Hutchison, but man can melt it and with the necessary artificial appliances have it fall in beautiful flakes of snow as before. No scientist doubts this for a moment, and many others know this to be a fact. Again he professes to give us another clincher and not two years ago I could have said nothing in reply. Hutchison quotes Mr. Bingham and says. "Butter is butter, but melted butter is grease;" let me whisper to Mr. Hutchison this is all wrong, there is a new and secret process by means of which poor butter is taken, melted, cleansed, churned again in milk, turning out a beautifully grained article, which I would defy Mr. Hutchison to distinguish from that which has not been melted.

When new and valuable discoveries are made no matter how good, we must expect opposition, even honest opposition, but these men nevertheless hinder progress. If we can get a comb with base and sidewall as thin as natural, the fish bone trouble we have had in the past, will I know, trouble us no more. This will be an advantage over the many other advantages already enumerated. Some may say how do I know? Because I have had comb honey stored in just such comb. I only wish we could feel surer that such comb will be within the reach of bee-keepers during 1898. I believe as the editor of *Gleanings* has said, such comb will enable us to produce almost or perhaps quite as much comb as extracted honey and more comb will be used. It does seem a little strange: a while ago Mr. Hutchison saw something new and wonderful and the other Bee Journals have not been able to see it. Now the other Bee Journals see the possibility of a Revolution and Mr. Hutchison fails to see it.

LATER.—Since writing the above a sample of the comb has been shown to others and they agree that the side wall is fully twice as thin as has often been built naturally by the bees. Remember this comb will not be upon the market this season. A sample of the comb will be sent postpaid upon receipt of 10s. in postage stamps. For particulars see February number of the *Canadian Bee Journal*.

* * *

While the Ontario Fruit Growers' Association was in session the Editor of THE CANADIAN BEE JOURNAL, then President of Spraying while trees are in blossom the Ontario Bee-keepers' Association, sent a letter to the Convention. The following is the letter which appears in *The Canadian Horticulturist* for January 1897, which by the way has come out in a new and improved form:

SPRAYING WHILE TREES ARE IN BLOSSOM.

Sir,—When the Spraying Bill was passed before the House, it was done largely through the endorsement of fruit growers and I think whatever prejudice then existed, has largely worn away since that time. It is now admitted that no good can result from spraying trees while in blossom and if it does not injure the blossom, it is at least a loss of time and material. During the past year there has been a good deal of spraying of fruit trees while in blossom. There doubtless has been occasion when the law has been broken in ignorance, and I know of one or two instances where experimental work has been carried on, and, owing to uncertain weather, there may have been some excuse for transgressing; but there are others who have openly and in defiance of the law, sprayed during the prohibited time. This is particularly the case with men who charge so much for spraying orchards, and they begin as early in the season as they can and continue as long as work will be given them. I have asked to bring this matter before the Fruit Growers' Association, knowing that this way attention of fruit growers could best be drawn to the matter. There should be fellowship between two branches of agriculture—which the greatest scientists of the world have linked together in so

foresting a way. I have reference to the pollenization of blossoms by bees.

R. F. HOLTERMANN,
President Bee-Keepers' Association.

* * *

Mrs. Wolverton, M. A., has the following editorial under notes and comments:

Spraying in Blossoming Time.—In open letters Mr. Holtermann calls attention to the transgression of the law in certain sections. The Fruit Growers' Association has no sympathy with such violation, because the bee is the best friend of the fruit grower, and we desire to be known as its special guardians.

* * *

Some of our leading bee-keepers have for some years been anxious to secure reduced freight rates on honey and other bee goods.

Several years ago a committee was appointed to take action in the matter. Mr. R. McKnight was either head of the committee or the sole representative and at the Lindsay meeting of the association, that gentleman reported that after a careful investigation, he found bee-keepers had nothing to complain of and he thought such a task would be hopeless. Several thought differently and a committee was again appointed, this time much larger, the late Mr. Allen Pringle at the head and strange to say, Mr. McKnight in spite of his statements a few minutes before, was put upon the committee. Mr. Pringle in some way forgot about the matter and never called the committee together, and when the statement was made to the above effect the following year at Stratford, no committee was reappointed, probably members of the association became discouraged and thought it would be no use anyway. The following year at Brantford, masterly activity in the matter still reigned supreme and probably for the same reason. During 1895 Mr. Holtermann paid some attention to the matter in hand. A long correspondence took place with Doctor C. C. Miller, T. Calvert of the A. I. Root & Co., and W. York who had the matter in hand in the United States. Last fall Mr. Holtermann decided to take action and Nov. 24th

wrote a letter to the various railroad companies approaching them in his capacity as lecturer in bee-keeping at the Ontario Agricultural College, and endeavored to show these companies that a change would be in the railroad companies best interests. A very courteous and pleasant reply was received and finally one from the chairman of the committee which deals with this matter, inviting Mr. Holtermann to Toronto. Mr. John Newton brought the matter up before the Oxford Bee-Keepers' Association just before the annual meeting of the Ontario Bee-Keepers' Association, and he was delegated to bring the matter before the latter association in Toronto. Mr. A. D. Allen came with the same thing in view. A committee was appointed to act with Mr. Holtermann, consisting of Mr. F. A. Gemmill. Mr. Holtermann still acting, not as a delegate from the O. B. K. A., but as a government official, appeared before the chairman of the committee. His object being to appear in the capacity in which he was likely to have most weight, and not because he did not appreciate his position as a representative of the association. Mr. F. A. Gemmill visited the same offices about the same time as a delegate from the Ontario Bee-Keepers' Association and pressed the matter. Replying to a letter the following was received:

TORONTO, Feb. 8th, 1897.

R. F. Holtermann, Esq., Brantford, Ont.

DEAR SIR:—Referring to your favor of the 1st inst. The Classification of Honey will be made as follows, soon as the new Book is approved by the Governor in Council and promulgated, it will probably not be for some weeks:—Honey, in glass, packed in cases 1st class, in cans, boxed 2nd class, in kegs or barrels 2nd. class, in comb boxed 1st class. Honey comb Frames K. D. flat, or folded flat in bundles, crates or boxes 3rd class. Bee hives set up double 1st nested, 1st class, K. D. in bundles, or packed in boxes, or hives 3rd class.

Hoping the above will be satisfactory, I remain,
Yours truly,

JOHN EARL, Chairman.

While this has not given us all asked for, it gives a very important concession, the classification on honey in cans, cased, is reduced one class. The bulk of our honey is

shipped in this way, the other changes can be studied out by reference to classification books, and we hope for more in the future. We do not want to find fault, and we do not want to strike at anyone, but did the Ontario Bee-Keepers' Association not act in an unbusiness-like way in this matter. Mr. McKnight if he held it to be true, had a perfect right to report bee-keepers had no greivence, and as far as we know, he had no desire for reappointment, but did the association not make a serious mistake when they reappointed such a man. From a sentimental standpoint such may have been allright, but we want more of good hardheaded business principles. Large committees selected to please and recognize someone, will not likely further the industry's best interest. Select the men who are in their position and through their experience and connections most likely to secure the point you desire and your work is likely to be done in the quickest time. If we have done, and are doing this well and good, if not, let us do so to a greater extent in the future, and select the most suitable men no matter how great our personal dislike may be, that is business. The man who esteems it a great honor to be put upon a committee to do certain work and desires it for that reason, can have had but few honors and deserves even less. If he thinks he can do good service, let him accept and be thankful that he has the opportunity of doing good. If he is not the best available man, and we must make some allowance for human nature, or if he is not able to devote the necessary time, it is his duty to resign and let the more available and suitable man take the place. In selecting the men to do work, it must be remembered we are not all alike, a man may be useful in one line of work and of no use whatever in another. We would like our readers to remember, we are not attacking Mr. McKnight, he was not even in the room when reappointed. The object is for us to weigh our past actions and see if we can better them in the future.

Why We Fail.

A. R. McRAE.

I promised you at the close of my last letter to contribute something to the Canadian Bee Journal but owing to a very bad attack of La Grippe I have not been able to write. In this letter I will try and give a few general terms about wintering. I was glad to see the December number of the journal. I am anxious to learn and I hope to ask questions and hope to hear from other bee-keepers. The long winter months is a long night for the industrious bee, through which they should sleep, in fact they have in our country one night and one day, where we, who are less active have 365 nights and days in the year. Many readers of the Canadian Bee Journal will admit that our bees often get worse usage than the darkies did down South in the time of slavery. I will tell you a true story about my neighbor, who, thinking I was getting along so well with bees the last two years, decided to change from the box to movable frame hive and try his luck. He asked me for help and I gave him every help in my power; I loaned him books and papers and helped him to transfer his bees early in June last. The other day I made an inspection and found that my adopted family were in a sad condition. All had perished but one hive—eaten up by moths, two starved to death for want of honey, and another well lined with snow and frost. The bees were put up in a dark room that was sometimes cold and sometimes warmed by a stove from the room below. He had put cushions on the hives and took it for granted they would swarm in the morning, but alas they died before they passed the midnight hour. Say, is it any wonder that so many Canadians fail in bee-keeping? Is it any wonder that we find so many poor farmers in Canada; no economy, no industry, carelessness marks their work. In the fall they unhitch and leave their farm implements in the field till they are wanted in the spring. The winter rigs are turned up against the fence in the barnyard until they are wanted the following winter. For the same reason some do not prosper in bee-keeping.

I am pleased to tell you that my own bees all appear to be enjoying good health. They went into winter quarters with abundance of stores, and I keep my cellar as near 45° as possible, but sometimes in cold weather it gets down to 42°. I want someone to tell me how far bee hives should be

apart to do well? Also tell me how to enclose a yard to exclude night robbers from pilfering? There are many ways to do it but I want a cheap way. I have used the hen yard and found it good in some ways, there is no grass or weeds growing which others would have to cut away from the entrance of the hive. My health compels me to retire from that work. With best wishes to the fraternity.

Bear Brook, Ontario.

[I may say we intend to revive the old question drawer and I trust any who wishes to take part in this work either by sending in questions or by answering will communicate with the Editor. Warm some one else; write more freely for the Canadian Bee Journal and in your effort to warm others, you will receive warmth and information.—Ed.]

Honey Adulteration and Foul Brood.

The Rev. Mr. Clarke, L'nderbank, in his report of the "Provincial Convention in Montreal Witness, represents, or misrepresents, that the adulteration of honey that the Association is fighting is the feeding of diluted syrup or sugar to bees and not a product of manual skill, ingenuity and labor. He also claims to have a prescription, which when feed to bees not only prevents but destroys "Foul Brood," while Mr. Cowan of the B. B. J. claims that such means only kills or retards the development of *Bacilli*, but only intense heat destroys the *Spores*. Is the reverend gentleman romancing or worse? You might answer in the C. B. J.

Yours truly,

G. G. SHERREFF.

Clarence, Jan. 30th, '97. Sec'y. B.B.K.A.

We have avoided saying anything about Mr. Clarke. He has in years gone bye been of some service to bee-keeping, but he is up in years, and bee-keeping is evidently one of the subjects in which Mr. Clarke has not kept up to the times, and it would be better for him and for bee-keeping if he discontinued his contributions to the public press. But we do not think that Mr. Clarke has the power to mislead anyone in the subject, and for that reason we can perhaps afford to remain silent. We do regret very much that a paper such as the Montreal Witness, of so high a standing

should allow such trash to appear in its columns; but the proprietors are certainly not practical bee-keepers and in this subject they are at the mercy of others. And more, we must not look for perfection in anything in this world. Let us be charitable and say as little as necessary about Mr. Clarke.—Ed.

Report of the Ontario Bee-Keepers' Convention.

On page 1004 of your paper may be found the following statement:

"Report of Committee on honey legislation presented and read by Mr. S. T. Pettit, Chairman of the Committee, and referred back for the purpose of striking out certain objectionable clauses contained therein."

Now Sir, The inference to be drawn from the above is that the other members of the Committee are equally to blame with myself for said "objectionable clauses" whether they be real or imaginary; but I beg to say that no one but myself is in the slightest degree to blame, if blame there be. I signed and read the report not on behalf of the Committee but for myself only. It will be remembered that after the work was fairly started it was decided by the executive and by the Committee and concurred in by the Association that I should go to the Capital alone and in pursuance of this decision I was four times to the capital not accompanied by any member of the Committee.

The Committee knew nothing of the contents of the report until it was read. I am very willing to take the responsibility of that report. As the years go by the Association will come to understand that the report was all right.

There is another misunderstanding in that report that I wish to set right. Anyone reading the first column page 1002 would understand that I had tried the two-super system of taking comb honey; but I have not, and it may be that if I should, I would like it better than I imagine.

In our discussions we sometimes fail to make ourselves well understood, but by the use of the papers we can straighten these things out.

S. T. PETTIT

Belmont, Jan. 19, 1897.

Seventeenth Annual Meeting

of the

Ontario Bee-Keepers' Association

Held in the Council Chamber of the City Hall at the City of Toronto,
December 8th, 9th and 10th, 1896.

(Continued.)

Department to the subject. That is a matter that is entirely in your own hands. And I have no doubt that if representations came from a Committee of this Association, it would certainly come with much greater force than from any single individual in any outside part of the country. In regard to milk, it is the duty of the Department to cause a collection of samples whenever they think fit.

After a lengthy discussion Mr. Best moved, seconded by Mr. McEvoy, that the Association take the precedence laid down by Mr. Macfarlane of having a Committee appointed to take action, to go through the matter in connection with the individual who brings the complaint forward and allow it to take its course as prescribed by the government; to let the Government collect the samples, and if it should fail the beekeepers will not be blamed quite so much probably as they would if they sent their samples there and paid their \$5. The government has broad shoulders, and if there is any blame attached to it, let the Government take it, and we will certainly have the thing properly investigated.

Mr. Gemmell.—Will the President appoint a Committee?

Mr. Darling.—Since we adopted by-laws yesterday that provide for the appointment of an Executive Committee, why not let that Executive Committee attend to this matter.

Mr. Best—I take pleasure in amending my previous motion, and moving, seconded by Mr. Gemmell, that the Executive Committee act in the capacity mentioned in my motion. Carried.

Mr. Pettit—I do feel this Association owes many thanks to Mr. Macfarlane and I rise to move a vote of thanks to him for the great help he has given us

Mr. McKnight—I have very much pleasure in seconding that motion. It is certainly an honor to us and to every other kindred association to have such men as

Mr. Macfarlane amongst us and we recognize the good will of the Government in permitting officials like Mr. Macfarlane to come amongst us and give their opinions based upon extended experience and perfect knowledge of the particular department that they are entrusted with controlling.

I think we have a right to feel very much flattered indeed in this subsidiary branch of the great agricultural interests of the country in having Mr. Macfarlane here.

Mr. MACFARLANE—Before you put that motion or any other motion to the meeting I would just like to say that we civil servants are servants of the public, we are paid for serving them; we may not be able to serve them in every capacity; but what we do know, that we place at the service of such associations as this, provided they are willing to make use of it. It is our duty to do so and unless you insist upon it, the passage of any particular resolution thanking us for what we do is perhaps out of place. What we do we do as our duty.

The motion was carried by a rising vote. Mr. Holtermann tendered the vote of thanks to Mr. Macfarlane.

Mr. MACFARLANE—Without speaking at length on the subject, I may say I am very much obliged.

SECRETARY COUSE read the report of Affiliated Societies. Report received and adopted.

Mr. NEWTON raised the question as to the high freight rates charged on honey. Messrs Allen, Couse, Pettit, Holtermann, McKnight and McEvoy took part in the discussion after which it was moved by Mr. Newton seconded by Mr. McEvoy, that Messrs. Gemmell and Holtermann appointed a committee to wait upon the Classification Board, which meets in January next to arrange if possible for a lower classification of honey, which if obtained would reduce the freight rates thereon. Carried.

Mr. HOLTERRMANN—I take great pleasure

in calling upon Mr. Kinyon of New York State to address the meeting.

MR. PRESIDENT, Ladies and Gentlemen—I did not expect to have anything to say when I came over here; I did not know I would come till yesterday morning; I got through working with the bees and had always heard you had good meetings so I came over to learn. I don't know that there is anything I could say that would be of instruction to you; you seem to get along here pretty well. I have learned some things here this morning. I do not wish to take up your time with something that may not be of any use to you and the only thing I could say to you is to tell you a few things I saw in Cuba as to the way the natives keep bees. They have a long box hive about five or six feet long, open at both ends and when they come around to visit the bee-keeper they want to know how much wax he has got; they do not take any account of the honey. The way they get their wax is this: The bees build this hive out at both ends and the native has a long knife, every native in the country wears one strapped to his belt; they run that knife in and cut the comb off and throw it into a barrel, they jamb it down and let the honey run away; honey is so cheap there that they do not save it, but there is a large quantity of wax raised.

MR. GEMMELL—Do they use brood comb in the same way?

MR. KINYON—They do not want any honey; they want wax. Some of the natives have from 25 to 500 hives. When I was there a person could hardly live there and make anything; corn and potatoes are 33 a bushel and everything in proportion; if you have a lumber wagon they charge \$25 a year; if you hang out a sign "honey for sale" they want you to pay for that. It seems to be a great place for honey. I was there with Mr. Osborne and he had 250 pounds at that time and during a good honey flow there seems to be no limit to it. The honey flow commences there about the first of October and keeps gradually increasing until December. By this time it is at its best—from this time until the middle of January. The most of the bees kept by Americans there are kept under long sheds; they put the hives on both sides of the sheds. The bees are very gentle there; I never wore any veils and Mr. Osborne never wore any hat when he was at home.

MR. McEvoy—What is wax worth?

MR. KINYON—It is worth about 22 cents a pound there. They jam the wax up in cask barrels. The wax moth there will eat cake wax and after they get started they will devour it quite rapidly. A comb left in the air in three days time will be

riddled. I never saw anything like it. They have to work with the bees all summer to keep the wax moth from destroying them. The wax moth is similar to the moth here but more persistent. The honey is very nice; it is of a light color and fine flavor and then there is a darker that has a very fine flavor. Most of the honey has been shipped to Holland; there is not as much shipped there now. It is put out in casks of 1800 pounds. They produce no comb honey; the reason for that is because the wax moth is so persistent and another reason is that there is no call for it. In fact, the natives use very little honey.

MR. McKnight—Is it the fact that in the higher latitudes bee-keepers cannot produce comb honey, from the fact, as I understand, that it will sour or ferment and burst the cappings of the cells?

MR. KINYON—That is so to some extent, according to the different seasons of the year. In the winter time he can keep the honey very well; it does not rain then and the atmosphere is drier but in the rainy season everything is damp.

MR. Pettit—Do you think there is any danger of the moth eating pure wax? Isn't it because there is a good deal of pollen incorporated with it?

MR. KINYON—I don't know whether that is so or not. The hive that the natives get most of their wax from is about a foot square the brood keeps in the centre and there is not so much pollen in the ends.

MR. McEvoy—Did Mr. Osborne make bee keeping pay there?

MR. KINYON—He did until the depression and until the Spanish trouble.

Foul brood seems to be very prevalent there and very hard to get rid of.

MR. Kinyon very good naturedly answered many questions put to him by the members of the Association as to Cuba and also as to bee-keeping in New York State, after which it was moved by Mr. McKnight seconded by Mr. Gemmell that the Convention adjourn to meet again at 2 p. m. Carried.

Convention resumed 2 o'clock p.m. President Holterman in the chair called the meeting to order.

The Secretary not having returned so that the elections might be proceeded with, Mr. McKnight was asked to address the meeting upon the subject of Honey Vinegar.

MR. McKnight—My knowledge as to Honey Vinegar has been mostly gained from personal experience. The sample which I have brought to the Convention has only been made about four months, and, while it is good vinegar now, it will be forty per cent. stronger after another eight months. It has not been clarified,

but is the crude article. I believe vinegar could be made from other sources and be just as good and wholesome as honey vinegar, as for instance, cider vinegar.

The British standard for vinegar is that it contain five per cent. acid and have a specific gravity of 1.019. In order to have a vinegar which will come up to that standard, the use of a pound and a quarter of raw sugar is required, and I do think two pounds of honey contains more saccharine matter (which goes to make up the acid of the vinegar) than is contained in 1½ pounds of raw sugar.

The sample of vinegar before the Convention is taken from a quantity prepared by taking a 40 gallon barrel which had the head knocked out, with a tap at the bottom, something like the tap in a honey extractor. In the barrel was placed twenty pounds of honey to forty gallons of rainwater, taken from my cistern. Nothing was added to that to hasten the process of change. Over the top I placed a piece of gauze, to keep out dust and flies. Cleanliness is a necessity.

The first fermentation which results produces alcohol which the second fermentation changes into acetic acid.

I think Bee-keepers ought to produce all the vinegar they require about their own premises. Honey vinegar can be made out of drippings and refuse, the result of cappings, and all that sort of thing, which cannot be sold, it only being necessary to put in sufficient to bring the mixture up to the standard of strength. Some consideration has to be given to the temperature at which it is kept; if it gets below 42 degrees no change will take place. I placed my barrel of honey and water mixture in a cold grapery, where it got the benefit of the sun, keeping up the temperature and hastening the changes.

I do not think there is much prospect of doing a great business in honey vinegar. Grocers in a good way of business generally buy their vinegar in ten barrel lots, and will not bother with anything less; and will want the same terms on honey vinegar as when buying from ordinary manufacturers.

Replying to a question by a member, the speaker said:

Vinegar can be clarified by the use of isinglass, whites of eggs (which are pure albumen), or skimmed milk. Not only vinegar and cider but also wines are clarified by the use of such articles. The result is obtained through the substances used coagulating and falling to the bottom, taking with it the floating impurities.

ELECTION OF OFFICERS.

President Holtermann then called for the

nomination of officers, stating that he was not in the field, and asking Messrs. Hoshal and Craig to act as Scrutineers.

The following officers were elected:—
President, Mr. J. K. Darling, Almonte;
1st Vice-Pres., Mr. M. B. Holmes, Athens;
2nd Vice-Pres., Mr. W. J. Brown, Chard;
Secretary, Mr. Wm. Couse, Stree'sville.

DIRECTORS.

District No 4, Mr. C. W. Post, Trenton;
District No. 5, Mr. J. W. Sparling, Bowmanville;
District No. 6, Mr. William Couse, Streetsville;
District No. 7, Mr. A. Pickett, Nassagaweya;
District No. 8, Mr. I. Overholt, South Cayuga;
District No. 9, Mr. J. B. Hall, Woodstock;
District No. 10, Mr. F. A. Gemmall, Stratford;
District No 11, Mr. W. A. Chrysler, Chatham;
District No. 12, Mr. H. N. Hughes, Harrie;
From Experimental Farm, D. Mills.

Foul-Brood Inspector—Mr. Wm. McEvoy, Woodburn.

Assistant Foul-Brood Inspector—Mr. F. A. Gemmall, Stratford.

Representative at the Toronto Industrial Exhibition—Mr. R. F. Holtermann, Brantford.

Representative at the Western Fair (London)—Mr. John Newton, Thamesford

Representative at the Central Exhibition (Ottawa)—Mr. J. K. Darling, Almonte.

Auditors—Mr. Hoshal, Beamsville, and Mr. Newton, Thamesford

Revising Committee—Mr. D. W. Heise, Bathesda, and Mr. J. D. Evans, Islington.

Next Place of Meeting—Upon motion of Mr. Fickett, seconded by Mr. Hall, it was decided that Hamilton should be the next place of meeting and the time the month of December.

Mr. A. E. Hoshal, of Beamsville, Ont., then addressed the Convention upon the subject of "Principles of Summer Management."

THE PRINCIPLES OF SUMMER MANAGEMENT.

Every art and every science has certain underlying fundamental principles which govern it, and which, under the circumstances, produce unvaryingly the same results. Honey-producing is no exception to this rule. If we will but observe various colonies of bees and their methods of making it will be found that they do so along certain definite lines, or in other words, in certain well defined manner in accordance with their instinct, no matter whether they are domiciled in the most approved modern hive, or among the rocks, or even in the carcass of a dead lion. Now, I wish you to observe very carefully, and

thoroughly understand what this general, yet well defined manner in which they work under these varying circumstances is.

A colony of bees, when left to itself, will store some of its honey about the sides of its brood nest, but the great bulk of it will be above; in fact this latter instinct so predominates that it is generally said among bee-keepers that "bees always store their honey above their brood." Besides they store it as near the top of the hive as possible, and for consumption use that lowest down and nearest the brood. In breeding the upper part of the brood nest is kept immediately next to the honey. When the brood in the upper part of the brood nest hatches, and the honey flow is sufficient, the bees will fill with honey the cells out of which it hatched, and thus they continue to work, as it were, to keep connected the brood and honey by filling with honey this shallow space of empty cells continually being created between them through the hatching of brood, thereby forcing the brood downward, keeping the honey at the top, and if there be not sufficient comb to continue this, compelling them to build more beneath the brood for its accommodation until the hive is filled. To illustrate, let figs. 1 2 and 3 represent hives of various sizes, and shapes cut perpendicularly in two through the centre so as to expose the central comb of each. Then *aaaa* will represent in each case about the dividing line between the brood and the honey. That portion of the hive above this line will be filled with honey, while the brood will be immediately next to and below it; should there be any unoccupied comb or space in the hive, (unless it be unreasonably long or wide in proportion to the strength of the colony) it will be found between the brood and the bottom of the hive DE. It will be found also, that it is in the emptied cells made so by the hatching of the brood, along and nearest the line *aaaa*, that the colony continually stores its honey. Now, from these simple observations of the way in which bees instinctively work, and thoroughly understood in all its hearings do we learn the fundamental principles of bee-keeping as they relate to summer management, and the adaptation of our hives to the requirements of our colonies, in order that they may work their best for us.

Other things being equal we observe:

(1) That surplus cases should be added above the brood nest, and hence our hives suit for top storage.

(2) That we should not have our bees travelling over honey at the top or sides of

the brood nest to store surplus, thus compelling them to do so at a distance from their brood; hence the dividing line between the brood chamber and surplus apartments of our hives, should come right where the brood and honey meet. In Figs. 1, 2 and 3 this should be at *aaaa*. In other words, our management should be such, that there will be no honey, or as little as possible at the top of our brood chamber, whenever we wish our bees to store in the surplus cases above it.

(3) That brood should extend underneath the whole surface of the surplus cases; hence, these cases should not extend endwise nor sidewise beyond the brood chamber; neither should there be combs of honey beneath them at the sides of the brood chamber. It is a fact, that the greater the number of combs a brood chamber is in width, the greater the liability of having its outside combs filled with honey, hence, a brood chamber should tend toward the narrow as much as practicable, rather than toward the wide.

(4) From principles 2 and 3 we see that any system of management which attempts to fill the brood chamber with honey for winter stores, either before or while the honey harvest is on, does so at the expense of important conditions necessary in developing from our colonies the most work, and accordingly lessens the amount of honey gathered and stored.

(5) That when one or more surplus cases have been filled sufficiently to require the addition of another, it should be placed right between the brood and the honey already stored; and, as might be inferred, and which experiment proves true, the shallower the opening which we make for storage between the brood and honey, the stronger the instinct of the bees to connect the brood and honey by filling this space thus created between them. To illustrate this, let Fig. 4 represent a hive of which EFHG is the brood chamber, filled with brood to its very top EF. ABCD represents a surplus case that has been filled sufficiently by the colony as to require the addition of an empty one CDFE, which, if everything is rightly arranged, can be placed exactly between the brood EFHG, and the honey ABCD and the shallower the opening made by the addition of this empty case CDFE between the brood and the honey, the stronger the instinct of the bees to fill it. Fig. 5 illustrates a serious mistake that is made in various ways by many bee-keepers. ABGH again represents a hive, EFHG being its brood-chamber which is filled with brood and honey, *aaaa* being the dividing line between them.

ABDC again, as in Fig. 4, represents a surplus case which has been sufficiently filled by the colony as to require the addition of an empty one CDFE, which has been added as illustrated, namely, in the midst of the honey, and not between the brood and the honey, as in Fig. 4. It will be observed now, that, in order to store honey in the empty case CDFE, the bees will have to cross the honey in the brood-chamber between aaaa and EF, which is compelling them to store their honey at a distance from their brood, instead of immediately next to it, as in Fig. 4. Now, from our observations as to the distinct, definite manner in which bees instinctively work under varying circumstances, and as already illustrated by Figs. 1, 2 and 3, we at once see that this is a mistake. The farther we place our surplus cases from the brood when we wish the bees to fill them, the less inclined it will be found, are they to fill them. No bee-keeper of experience, when adding surplus cases, ever places them above filled ones; experience has taught him, or soon will, that the bees will neglect them. He may not know that it is because they are removed from the brood, and that when he places them above a brood-chamber which is filled with honey about the top, he is crossing the honey-storing instinct of his bees in exactly the same way that he does, when in adding an empty surplus case, he places it above a filled one. In either case, he is compelling his bees to store their honey at a distance from their brood, only in the one case the distance is less than in the other, and just in proportion as this distance is increased, do we lessen the honey-storing instinct of our bees, and consequently the amount of honey stored.

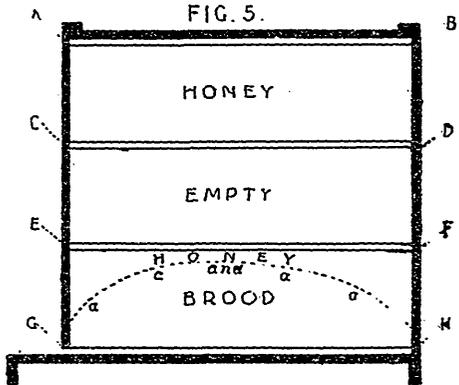
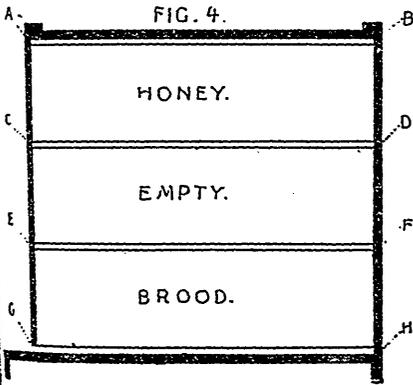
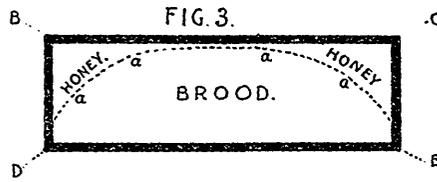
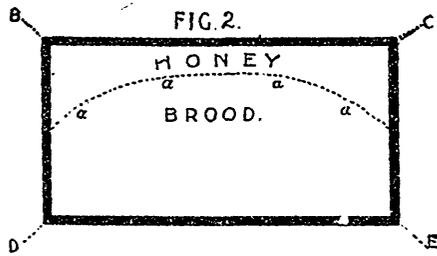
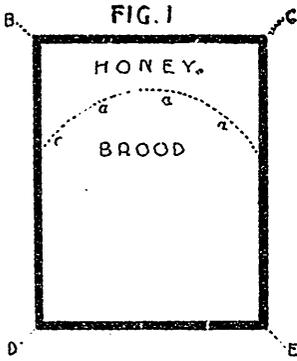
(6) A little reflection shows, and experience proves it true, that the deeper the brood chamber the greater the liability to have honey stored at the top of it by the bees (observe Figs. 1, 2 and 3 in this connection), which, in adding surplus cases, prevents them being placed near or immediately next the brood, as in Fig. 4, but removes them from it, as in Fig. 5, thereby lessening the honey-storing instinct of our bees.

(7) A little mathematical calculation shows too, that the deeper the brood chamber the less surface there can be above it for top storage, and hence the deeper will the surplus cases have to be in order to have sufficient capacity, in adding which the deeper will be the opening that is made between the brood and the honey, thereby again lessening the instinct of our bees promptly to fill this space.

(8) It is a fact, that when a brood-chamber is larger than a queen can keep filled with brood, the remaining space will be filled with honey. We see, therefore, that such is a mistake, where we wish a brood chamber filled with brood and devoid of honey.

Now, I do not wish it understood that we cannot at times change to our advantage the natural conditions under which our colonies work, only that we cannot do it without loss, like in the instances just quoted, when it diverts the instincts of our bees from the end we have in view. The queen excluding honey-brood between the brood and surplus apartments, where used, is an unnatural condition, yet it increases both the quantity and quality of our honey. (1) Through preventing the further expansion of the brood nest when more brood means more bees at a season of the year when they will be consumers instead of gatherers: it diverts, so to speak, the energy of our colonies from unnecessary brooding to honey gathering, and thereby also prevents unnecessary consumption of stores. (2) It enables us to keep our brood-chamber in a condition more perfectly in accordance with the principles above enumerated than without it; and (3) by keeping the brood out of the surplus apartment, gives us a better quality of honey, besides all the advantages to be gained in manipulating our hives.

For various reasons, we may not always be able to so arrange the conditions of our colonies during the honey flow as to develop their working energy to the fullest extent, but just in proportion as we fail in doing so, do we fail in securing the greatest amount of honey from our colonies, and not only this, but also succeed, to our own disadvantage, in developing among them the swarming impulse. You will have noticed, as I have already shown, how that bees, when left to themselves, always store their honey above their brood, but build their comb beneath it. In the production of comb honey we partially reverse this order by compelling them to build their comb above it, and this, I claim, is the cause, to a very large extent, of the marked difference there is in results in colonies worked for comb honey, as compared with those worked for extracted, and not that the one has so very much more work to do than the other in the building of comb; it is also the reason why colonies worked for comb honey are so much more liable to swarm than those worked for extracted honey. The first result is but another illustration of failing to develop the working energy of our colonies to the



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fullest extent through compelling them to work in a manner contrary to their instinct; while the second result is the sequence of it, and a simple, practical illustration of how we can develop the swarming impulse of our colonies through failing to develop their working energies. If we wish to retard swarming, if not prevent it altogether, we must work our colonies to their utmost for honey along those lines which tend to develop amongst them their strongest, active, honey-gathering energy.

Another factor that cannot be overlooked in summer management is the strength of our colonies and their honey gathering and other qualities. No system of management, however correct in principle and skilfully executed, can atone for a neglect of either of these factors. If we are to have strong colonies, we must see among other things, that each is supplied the season previous with queens of sufficient vitality and prolificness to keep the brood chamber of their respective hives full of brood throughout the entire season, and not only this, but their progeny must inherit from them the strongest honey gathering instinct, and other qualities that may be desirable. It is a well-known fact among experienced bee-keepers, that there is as much difference in the honey gathering and other qualities of bees, as there is in the milking qualities of cows, and it is the height of folly to tolerate anything in our apiaries but the best.

In honey production, as in all other lines of production, we strive to obtain the greatest amount with the least expense of time and labor. In conclusion I would ask you to note, that with respect to securing our honey with the least expense of time and labor, I have said nothing; I have only mentioned a few of those principles which bear upon how to secure the greatest amount of honey, and which I trust, will help us to a right understanding of the lines along which we should work, and give us a centre from which to direct our thought, and a basis upon which to build a common sense and scientific management of our apiaries. The principles which I have set forth I consider fundamental, and that they form the great central sun around which the successful management of our apiaries revolve.

A. E. HOSHAL.

Beamsville, Ont.

Following the reading of the paper, which was received with applause, Mr. Pettitt, while not agreeing with the paper in all points, congratulated Mr. Hoshal upon the presentation of the subject. He said, I think it very needful to have bees coming

on after the honey-flow is over, for the purpose of strengthening the hive for wintering over. I took 2,400 pounds of comb honey last year, and did not use honey-boards or queen excluders in a quarter of the hives, and yet the queen only went into five of the sections. The frame which I used is nine inches from bottom to top. I find if the sections are filled with foundation, and the queen and the bees start to work nicely below, the queen will stay there and the bees will work above; but when putting them on starters and putting supers on immediately there is danger of the queen going up if a honey-board is not used. When putting a new swarm into a hive, if I wish comb honey, I make it a rule to put supers on at once and put in a queen excluder, to keep the queen down for a few days; but I feel that a queen excluder more or less annoys the bees and hinders the work. After the queen gets nicely to work I slip the queen excluder out.

Mr. Hoshal—There should be a lot of young bees to stay in the hive, while all old enough, during the honey-flow, ought to go to the field. I only desire to stop surplus brood-raising over what would be required to keep up the colony for the winter. In my own practice, I use a hive five and one half inches deep. If by the middle of June a queen has only about five frames filled with brood, it is better to put in a dummy and stop the brooding than to develop further, which could only result in bringing young bees into the field after the honey-flow, when they would be of no use for gathering honey.

Mr. Davidson—I never use a honey-board or queen excluder when wanting section honey, but if extracting from the top I do use one.

Mr. McKnight—I never use queen-excluders and never saw any necessity for their use in taking comb honey under the conditions that I have taken it for twelve or fourteen years; I get my comb honey from my first swarms; and in twelve years' experience I never lost a single section through brood or pollen being stored over the brood chamber. I never interfere with the brooding of my bees. I think they know more about the business than I do. I just let them go on as long or as much as they please, and the more bees that go into winter quarters with me in a hive. I expect the more bees will come out in the spring and I will have so much more working force. They will consume more stores, that is something that follows as a matter of fact it cannot be avoided. But I want the bees in my hives going into winter quarters to be young.

All the authorities which we have any right to rely upon, state that the natural life of a bee during the working season is from six to eight weeks; the strength is kept up by the fecundity of the queen, that is, reproducing her kind during that time in great quantity, but when the fall comes on and we want a working force for the next year we can only get it by the producing force that is left in the hive. While the natural life of the bee may be six or seven weeks in the working season we all know it is more than that, under some conditions; we all know bees will live seven or eight months in the winter time. They are in a state of hibernation; the bees are living and not living, and it does not require very much sustenance to contain the little spark of life that exists, they do not consume one fifth part of the sustenance that is necessary to sustain them in active exercise. I am very much pleased with the paper, it provides a good deal of food for discussion, and that is one of the very best merits that a paper can possess.

I use a hive with a frame in the brood chamber 15 inches across and nine inches deep, inside measurement, and the top story or super is a counterpart of the brood chamber. I use a honey board. I think what the gentleman calls a honey board ought to be designated as a queen-excluder; I never use them and I do not want to use them, and I do not believe I ever will. I am satisfied with my method and the results I have secured from it.

I do not believe the old bees that winter do anything for us at all the succeeding season in collecting honey. I believe they are all dead before the honey flow comes, but they have performed their functions in preparing a new race of bees to take their places and go out and work for their queen. If the honey bee was like the bumble bee I would not want more than a single queen to myhiveduring the winter. The honey bee does not feed her young, some other tenants of the hive have to do that, and the bees that survive the winter I believe do that work, and there is a succeeding generation to take the work that was their duty in the past season. Therefore I say it is important that we should bring out our hive with a good strong force of bees in the spring.

Mr. Newton—Mr. Hoshal in his paper reported that after the 20th July his bees were no good to him and gathered nothing, therefore if they gathered nothing and there was no fall flow when there were no young bees bred after that, and therefore I do not know where the bees are coming from for the next spring. I let my bees take their own chances and let them brood; if they want food I give it to them and that is the

way, I think, to have full hives of bees. I use the shallow frame 8½ ins. by 17½ ins. It is very seldom that I ever use a queen excluder; I think it is against comb honey methods because I do not think the bees will enter the sections so readily if that is between them. I have been seven years in the business for myself, and before that I was with some of the larger bee keepers in this line and I know something about the production of comb honey. This year has been the only year that I ever had a queen enter the comb honey sections and that was caused by my experimenting, using heavy foundations in the sections. When hiving my swarms I hive them on five starters, the outside filled with dummies.

Mr. McEvoy—The system as Mr. Hoshal gave it is the most perfect I ever heard of in my life, it is the most practical thing ever given in this country, taking it all in all.

Mr. McKnight—What is a dummy; how is it used; how is it placed in the hive and what effect has it?

Mr. McEvoy—Mr. McKnight knows well what that means, as well as I do; it means a division: more, it means something to contract the brood nest, and it is called a dummy. It narrows the space.

Mr. Hoshal—Speaking of contracting a brood chamber: I perfectly agree with that and I would do the same thing if I were using that hive of Mr. McKnight's; it is the only thing you could do. If he in using that contraction instead of having those frames set up the deep way could somehow or other flop them over at the side so that he could spread his brood out under the whole surface; make it shallower; keep the same cubic space, but instead of getting it through depth get it in width and make it shallower and thus bring the brood under the whole surface of the surplus case and also bring the whole body of your brood nearer to that, and also the whole body of your working force of bees nearer to the working section you would have more comb honey. I don't mean to say you don't get any, but I do mean to say you would get better results.

Mr. McKnight—I want to repeat my question; What is a dummy?

Mr. Pettit—Here is a whole row of them here. (Laughter)

Mr. McKnight—After fifteen years experience I don't know what it is. Does a dummy mean some board or something else that is placed in the hive to contract or gather together, or keep within certain limits the bees, and does it extend to the bottom of the hive?

Mr. Gemmell—Yes.

Mr. McKnight—Do dummies as they are

generally known, extend to the bottom of hive and rest flatly upon it?

Mr. Gemmell—No.

Mr. Sparling—I use dummies. A dummy as it is generally known is merely a plain board that hangs on the bearing to take the place of a frame. It does not go to the bottom. When my hive swarms I have frames with starters and I put three dummies in place of three frames, and I put on a queen excluder which keeps the queen from going up into the sections. There is more or less risk in hiving on five frames of the queen going up above, and I don't find any difficulty about the queen filling the upper part of the frame with honey; she will fill, if she is a fairly good queen, the five frames full of brood.

Mr. McKnight—What advantage do you derive from putting in those three frames instead of putting in three combs?

Mr. Sparling—If you put in three combs the queen would lay in them at once. The other five have merely starters in them.

Mr. McKnight—Dummies are a perfect nuisance.

Mr. Sparling—No sir, because you force your bees at once into the sections. They have not very much room below and they are bound to go up above. I put the sections on at once when I have a swarm. The bees commence at once to work in the sections. I don't wait ten days like Mr. McKnight and lose the best of the honey load; I put them on at once and the bees are at work an hour afterwards. In fact, I take sections of the old hive and the sections are never empty. I do so to get more honey. Unlike Mr. Hoshal I don't think five frames are enough; I get a fall flow of honey. When my honey begins to slacken in flow I fill up the hive with three frames filled with foundation, or better still, if I have it, with combs and the queen will extend the brood nest a little and I have a stronger force to go into winter quarters. Of course it would not work with Mr. Hoshal because his honey shuts off too early, but with me I always get a good fall flow and it works well.

Mr. Hoshal—Perfectly right, too.

Mr. Sparling called for a showing of hands to ascertain how many bee-keepers present hived on frames with starters for comb honey. In response to his request fourteen raised their hands.

PRESIDENT DARLING.

I take this opportunity of thanking you for the honor you have placed upon me and I feel the great responsibility that rests on my shoulders and I think you will agree with me when I say that no matter what the ability of the man is that you place

in this position, unless you second his efforts they will not amount to very much.

And no matter if you place a man here that has not the best abilities if you do your best he will not be a complete failure.

I hope that you as an association will all stand by me and help me to do the best I can in forwarding the interests of this Association, and the interests of the bee-keepers throughout this province by giving me the best possible assistance you can during my stay in power. Applause.

I was just going to say that perhaps it would only be fair, since the question is put in that way, to ask all those who produce comb honey and do not do so on starters to hold up their hands, but I rather think that as a rule nearly all of those who produce comb honey hive on starters.

Mr. Pettit—Starters and dummies.

Mr. Hoshal—In explanation, as there seems to be some misunderstanding, I would say that in the first instance I use a Hedden hive pure and simple; that hive is filled, the brood chamber of it has capacity for Langstroff frames as large as any you are using; you can make it either five, ten, fifteen, twenty, twenty-five or thirty, any multiple of five. We start in the spring and sometimes in the winter; it depends on the strength of the colony. We keep extending that brood chamber in the summer season as long as the forcing of the brood is going to place bees in the field to gather honey, but as soon as that time of the season is past we stop extending. But, we do not make it smaller after that point; we simply stop expanding, but it is still a monstrous big hive. Instead of using what is termed a gummy or something to board up that space, I simply contract by using one of those sections on the brood chamber.

Mr. Sparling—Do you get pollen in the sections?

Mr. Hoshal—No, I do not. I can put pollen in the sections if I want it. If you use sections above that contain traces of comb which can be drawn out by the bees, or foundation that is thick, you will get pollen there, or if you put sections up there that have had comb in the previous season; but if you build the sections complete from the start of thin foundation you will be all right. What I have done is to use two honey boards, and from experience I am convinced that they did not interfere with the working of the bees. At first I was very obstinate about it, but after experimenting with hive after hive I was forced to the conclusion against my own judgement that they did not interfere with the working of the bees above.

Mr. McKnight—I can understand now why Mr. Hoshal's paper created so much

interest. I am aware now that he uses a hive that is not generally used, the Hedden hive; the Hedden hive proper is only about five inches high; you can put another on it and then it becomes something like the ordinary hive that is used. But Mr. Hoshal tells us that he has wintered his bees in that Hedden hive both with two section and with a single section and brood chamber only five inches deep. There are very few I think who know how bees winter under conditions of that kind.

Mr. Gemmell—I know.

Mr. McKnight—You are an exception if you do. I am glad to know Mr. Hoshal has brought up this question. If they can be wintered well in such a contracted space as that a l the better.

Mr. Holmes—I move that a vote of thanks be extended to Mr. Hoshal; I have listened with a very great deal of interest to the paper and the discussion throughout and there is room for congratulation in the fact that he has set forth the general principles of success without condemning every other mode. We have heard a good deal during the discussion about dummies. Unfortunately there are some. I have very much pleasure in moving that the thanks of this Association be tendered to Mr. Hoshal for this valuable paper.

Mr. Best—I in seconding that motion I agree with the remarks of Mr. McKnight that it was a good paper; it has certainly brought about discussion that has been appreciated by the majority of those here more than anything we have had lately and it has certainly done a great deal of good to this Association, therefore I take great pleasure in seconding the motion.

Mr. Hoshal—I thank you very much for your kindness and for your appreciation. If the paper has brought out discussion which is profitable I am glad to know it. Of course, you would be all extremely perfect bee-keepers if you did just as I do. (ap-
pense) I expect that. And when you are asking exception to a lot of things that I say of course I know you don't know anything about it, and I know it all. (laughter) I thank you again very much for your kindness and the marked attention and appreciation you have given and shown me.

Mr. Martin Emigh read the Treasurer's report, which on motion was adopted.

The President read the following question: What is the best way to increase the number of colonies one half in outyards, and to prevent much swarming?

Mr. Kinyon—I believe mostly all of you have read the way Mr. Elwood took to prevent swarming. He has about 100 to 110 colonies in each yard, and when the

swarming season comes on and the bees are liable to swarm, he selects ten or twelve queens in each yard, and puts them in an empty hive, and then kills the queens in the next nine or ten hives, and then takes a frame of the brood from the hive where the queen is killed, and puts that in the hive where the queen was put; that makes about ten per cent. increase in each yard; that leaves the colonies cleanest when their main honey flow is coming on. When the danger of swarming is over, this plan will reduce the amount of young brood in the hive and takes out the swarming impulse. In about ten days or two weeks he takes a young brood and exchanges it for a frame of older brood, and gives them a chance to raise the queen again, and that does away with swarming in each yard.

Mr. Darling—The plan spoken of by Mr. Kinyon suggested itself to me when I was listening to Mr. Hoshal's paper. There is one point Mr. Kinyon did not touch upon. I think all bee-keepers will admit that when colonies are made queenless and the brood rearing ceases for a time, as he says, they get more honey on account of there being less brood to feed.

Mr. Kinyon—I may say, you have to look through the colonies as often as once in nine days, so there will be no danger of the queens hatching and going away in the meantime. Also, there is not so much young brood to take care of, and more of those young bees will go into the field, and more honey will go into the boxes, so that it will accomplish two purposes.

Mr. Pettit—About how long do you have your hives queenless?

Mr. Kinyon—According to circumstances, from ten days to two weeks. By being queenless, the swarming impulse is discouraged, because the young brood is growing older.

Mr. Pettit—Don't you find that that kind distils your cells with a good deal of pollen?

Mr. Kinyon—There does not seem to be any more pollen than the young queen will take care of.

Mr. Hoshal—Did you notice any difference in the working energies of the colonies?

Mr. Kinyon—I found no difference.

Mr. Armstrong—I find as soon as a queen is taken away from the colony, the colony does not work as well as while the queen is there.

Mr. McEvoy—Does Mr. Elwood follow the practice of doing away with the queens wholesale?

Mr. Kinyon—Yes.

The President—The next question is: "If I do not forget, there is a decrease in

membership from former years, and an increase of \$100 or \$150 grant. Could not something be done to improve matters? I should think we should have ten times as many members. How would it do to give members two bee journals, or a queen, or a book or smoker, or something else, with one bee journal; or no bee journal and more supplies, giving members their choice, and hold the annual meeting consecutively in each affiliated county, and at fair time; if near a city, in the city; and the Secretary, Treasurer, and one other official, say the Vice-President, or Vice-Inspector or Treasurer, be paid their expenses."

Mr. McKnight—It might be presumed by some person that I was the party that asked that question. I am not. I am quite in accord with some of the questioner's views, and some of his views show that he is not quite conversant with the history of this Association. Its members before now have got a book, they have got a smoker, they have got queens, and they have got the Journal for more than one or two or three years. The only suggestion, as far as getting is concerned, is that they get two journals. Why not say three? I don't think, however, that this is just the time to discuss that question, as it will come up bye and bye. In fact, I presume that is for the Board of Directors to deal with exclusively, as to what means will be employed to keep up and interest the membership.

On motion, the convention adjourned, to meet at eight o'clock p. m.

Eight o'clock p. m., President Darling in the chair, called the meeting to order.

President Darling read a letter from Mr. Hall. (Letter will appear later.)

Mr. Pettit—Perhaps I can answer that letter. Although we did not get what we asked for, we have a bill which lies in that direction and I will just give you the views of Dr. Sproule. He says you will not get any more than you ask for. But he says my advice to you now is, do not ask just yet for anything more. Let the bill alone; test it in the meantime, and then come and get the amendment that you need; get just what you want. Mr. Sproule says there are few bills passed but what need amendment, and when a Government has undertaken to pass a bill, if they find that bill is wanting, they feel bound to make it what it should be, and as a rule they do it. I think Mr. Hall is making a mistake and I think we too would be making a mistake to follow the suggestion he makes.

Mr. McEvoy moved, seconded by Mr. Pettit, that a vote of thanks be passed to

Dr. Sproule and all the other members of Parliament and members of the Senate who have done what they have to put this bill through and give this Association a bill, which while it does not perhaps come up to all we asked for, is a long way ahead of what we have had in the past. Carried.

"What stand should Canadian bee keepers take in regard to the Bee Keepers' Union of North America, and North American Bee Keepers' Association?"

Mr. Pettit—I would move that we do not think it advisable to have anything at all to do with it and I want to emphasize that the object in making the motion is not at all because I have not the most friendly feeling in every way towards our brother bee keepers across the line; I appreciate their good will and kindness in every way but they see it as I see it, that each nation can run better by itself. That is the reason of the motion; it is not because they despise us or would not like to work with us.

Mr. Holmes—In view of the fact that we are very close neighbors and we wish to live in very friendly terms would it not be well to allow the matter to drop without a resolution? (hear, hear).

Mr. Pettit moved, seconded by Mr. Walton that this Association take no action in regard to the Bee Keepers' Union of North America. Carried.

Discussion on the best method of rendering old comb.

Mr. Newton—I have used the solar extractor and get on very well, but I have some combs that I want to melt up this winter and I want to hear something with regard to the best methods of working.

Mr. Pettit—In using the wax extractor do you put the combs more than one thick? Will it do to put one on top of the other? I never tried it.

Mr. Newton—I generally break mine up and after they get so that I can see the wax out of them I stir them up with a stick. I cannot very well answer how many combs I can put in at once. Sometimes I break up probably three or four at a time.

Mr. Pettit—Did you ever try to see whether you could get the wax all out? In breaking the combs all up it seems to me the cocoons would sap up the wax. Do you ever try the two ways to see whether you would not get more by not breaking them?

Mr. Newton—That is why I break them up because I get more wax.

Mr. Hoshal—Have you ever tried the way you have got to see whether it will burn? Have you put it under a microscope.

Mr. Newton—That is a question that

cannot answer. It will burn; I cannot say it will burn very savagely. I have seen many other ways of doing it but I do not think you will get it out as clean as you will by the solar.

Mr. Heise—I have tried putting two old combs on top of each other in the solar extractor; with old combs that brood has been reared in very often it won't work; with new combs it will.

Mr. Chrysler—I have tried getting wax out of old combs with the solar extractor and I did not find it satisfactory. As for very old combs it is very unsatisfactory. If we would break up the old combs and soak them in water and then use them in the sun extractor I think we would do a great deal better, but the steam arising from the heat caused by the sun inside of the extractor appears to so sweat the glass on the extractor that it will not melt them satisfactorily at all, and if we have a current under the glass to carry that off we do not get the heat. I have thoroughly tried putting the old combs in a sack and putting them into a large boiler and boiling them for hours, and then squeezing that sack with strips of wood perhaps $\frac{3}{4} \times 1$, and also another set of strips across, putting on a heavy weight to press it all together. I have even failed in that way to get it out satisfactorily. It is not nearly as satisfactory as the steam wax extractor: I always find particles of wax mixed up in the refuse. What I do get from the old comb when melted up is generally very dark and very unsatisfactory; that got from the steam wax extractor is very much superior.

Mr. McEvoy—The best extractor that I have seen anywhere is Mr. Hughes', of Barrie; he has got an arrangement. He can explain it.

Mr. Hughes—It would be a pretty hard thing for me to explain it. I can coil two layers of comb right in on their edge. It is done by steam. We use a coal oil stove; I can run it with one burner or three, whichever I like. The water is underneath, and we put the combs in a basket with perforations; we turn on the steam and it melts the wax right out. I wire all my frames, and I can shake the frames right out and leave the refuse in it. There is a small trough runs right around the side; it starts at the back and slants to the end and down to the side and down to the centre. It is something on the same principle as the old steam extractor. Only a great deal larger, and I do it with coal oil instead of gas. I use the same extractor for melting wax; I can melt 200 pounds at once. I have a tube up the centre with perforated metal, and the steam passes through the

comb and melts everything up and there will not be any wax in it when it comes out of it. I have tried to see if there was any wax in the refuse and I could not find any. I never burned the refuse that came from my extractor; I threw it out. I never examined it with a microscope.

Mr. Armstrong—The refuse will burn fiercely if there is no wax in it at all, because I have tried it. I put my refuse into a sack and into a box with holes bored along the front, having the box on a slant, and I put all the power onto a screw, that I have in connection with it, that I can put on and the refuse that comes from it will burn.

Mr. Hoshal—Did you ever examine it under the microscope?

Mr. Armstrong—No, I did not.

Mr. Lang—I have an extractor that I have shown here at the Industrial Exhibition; I use it for various things; I call it the combination wax extractor. I think I could render more combs with it than any wax extractor I ever saw. It is made a boiler shape; it takes up three lids on the common stove, and from the time I start, when I get the water boiling and steam going, I can put in fifty square feet of comb, cover it up and when that is pretty well run out I put in about fifty more; then if I think there is quite a bit of sediment and dirt in the boiler I let it run perhaps for a couple of hours. The centre of it is raised and there is a tube about three inches in diameter all the way through the centre and a cap on top. I can let the steam out at the top or I can shut it down and make it come around the boiler in the inside. I have steam in the centre and all around. In three hours from the time I start to put the old comb in it is done and I take it off and set it to one side and start over again. The wax I run out in the first place I run over again by itself and my work is done.

Mr. Hoshal—Mr. President, I was only asking questions for personal information. It is one of those questions that I have been stuck over considerably, and I confess to a failure to my own satisfaction along that line. I have had no experience with the solar extractor. I use steam. The best way I find in using a steam wax extractor is not to put it on the stove at all, but to take a great big boiler to cover the top of your stove, if you have got enough comb, and put a little water into it, put your comb into it and melt it, then put your steam extractor on where you can keep it hot, dip it out of the boiler into the extractor and you save an immense amount of time by doing it in this way.

(To be continued.)

REPORT OF THE PROCEEDINGS....

of the Twenty-Seventh Annual Convention
of the

North American Bee-Keepers' Association

Held at

Lincoln, Nebraska, October, 7th, and 8th, 1896.

By Dr. A. B. Mason, Secretary.

(Continued)



Mr. Abbott—I think it is one of the most important papers that has been read here. It ought to be a basis for some definite action. Mr. York has struck the key-note. His suggestion is a movement in the interest of pure honey. We have been going through this battle in Missouri as to "oleo." The dairyman have this down very fine. The men who manufacture "oleo" are not allowed to use any kind of oil in the manufacture of it that will give it the color of butter. That seems to be all right from the standpoint of pure food. But that is simply interfering with the rights of the men who manufacture a thing and are willing to call it by its right name. If a thing is harmless in itself we have no right to interfere with its manufacture. But we have a right to insist that the man who manufactures a thing shall call it by its proper name, and I have insisted that our dairymen have made a mistake when they attempted to say whether "oleo" should be white or black or yellow. But make them call it what it is, no matter what the color. It is like the sale of rum. We cannot make a law that people shall not drink rum; but we can make a law that when a man sells rum, he shall call it rum; when he sells "oleo" he shall call it oleo; and when he sells glucose he shall call it glucose! [Applause.] Every man is scrambling for dollars. Every society is besieging the legislature. It would take a room as large as this to hold the laws enacted by the legislature. The lawyers like that; it gives them employment. They don't know any more about the laws than you do. When they get a case, they read up a little, then they go into court and look wise, and charge you \$100 for their services. Now, if we can get rid of these laws, and have them reduced to three or four good laws, and have one pure food law, and one man whose business it is to enforce that law, as to butter, honey—everything that is adulterated—then we can unite our forces in

backing him up. But if we have one man to chase down the butter adulterator, and one to chase down the honey-adulterator we would never accomplish anything. Now if we can make some move in the direction of co-operation to secure a law like they have in Ohio, that would be a step in the right direction.

Dr. Mason—Mr. President, it is not the law that we have that does the work; it is the men we put in power. We have a man in Ohio called the Pure Food Commissioner. Through a large number of deputies he watches for adulterated food all over the State. We have had a large number of convictions under the pure food law in Toledo alone. The dealers don't dare offer anything that they mistrust is adulterated. Every court that has fined a man the first time has simply said, "Don't do this again," and it works nicely.

Dr. Miller—Suppose we get that man from Ohio over into Illinois. With the laws we have in Illinois, will he do as well?

Dr. Mason—You can't get him. We want him ourselves.

Mr. Aikin—There is a firm in our State (Colorado) to whom I have sold considerable extracted honey. I have been in the establishment often. They openly charge all bee-keepers in and about Denver with adulterating. I cannot say positively that they adulterate, but I do question some of their methods of advertising. I once talked with them about the honey they were selling. Alfalfa honey has a very mild flavor, white clover honey has a very decided twang. They told me they could take a case of alfalfa honey, and put into it a very little white clover honey, and sell it to their customers as "white clover honey." Mr. York spoke in his paper of glucose as not having a very decided flavor. I am under the impression that this firm uses glucose very largely—put in a little of the strong flavored honey, and sell it for the pure article at good round prices.

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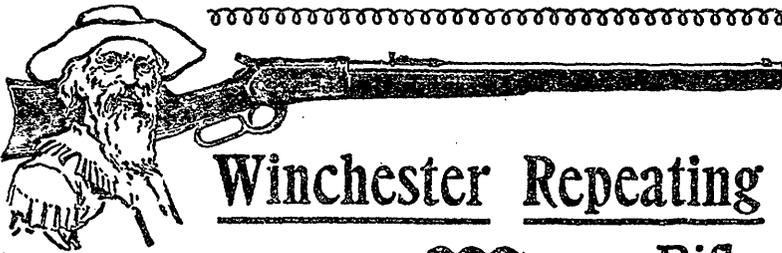


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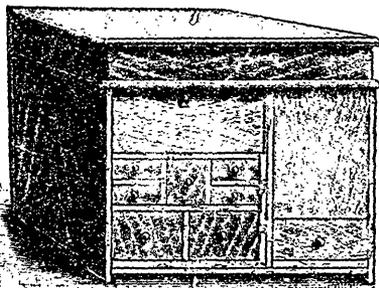
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