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"THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER."

VOL. VII, No. 20. BEETON, ONT., JAN. 15, 1892. WHOLE No. 304

Some of our subscribers in the Republic to the south of us as well as our fair Dominion go semi-monthly to their post office and take therefrom our journal. The postmaster notifies us that Mr. So and So wants his paper stopped. We want the arrearages and as a general rule we remain *wanting* them. Look at your journal. This issue is No 304 opposite your name is the expired or expiring number if your number is less than 304 you are behind if your number is greater than 304 your subscription is paid ahead.

\* \*

In response to gentle reminders sent out to our subscribers who are sadly in arrears we have recieved a "notice of undelivered publication" quietly saying "refused." "Don't want it." "Left the vicinity." This is all very well for the other fellow, but it is rather tough on the publisher. It is just possible that we will open a column in the journal and either offer for sale the subscription list of our delinquents or adopt some other legal plan of letting their neighbors know how they treat our appeals for a just debt.

\* \*

There should be more Bee-Keepers Associations formed in various parts of Ontario as the grant from the Ontario Government is arranged to be divided among new societies. Formed as were those in existence, this is a grand opportunity to assist in giving prizes

to encourage a fine exhibit at the local exhibitions.

We were sorry that more ladies did not attend the annual meeting. We bespeak a large attendance of ladies at our next annual convention, those who cannot bring their wives should bring their daughters, and those who have neither, take their best girl. There are golden opportunities at these conventions.

Long winded speeches at conventions are very objectionable. Messrs. Allen Pringle, S. Corniel, and R. McKnight are a host in themselves at such gatherings. Clear forcible argumentative speakers always leave a longing desire for more.

\* \*

The Bee-Journal enterprise was laid over for another year and the Bee Keepers Association decided to give all the members of the Association the Canadian Bee Journal for one year. This is a grand opportunity to get new members to join and should increase the membership very much before another year goes by.

\* \*

We shall be pleased to have the assistance of all our friends in making the Canadian Bee Journal what we desire it should be, second to none. New ideas, new inventions, valuable hints, in short, everything that will tend to elevate, instruct and improve our methods will be greatly sought after.

## GENERAL.

### Annual Meeting Ontario Bee-Keepers Association London, Ont. 1892.

THE meeting of Directors was held at London, January 5th, 1892. Members present, President Pringle, vice-President Gemmell, W. J. Brown, J. K. Darling, C. W. Post, S. Corneil, W. Couse, A. Pickett, F. A. Rose, R. McKnight and A. W. Humphries. The accounts were closed, books audited, &c., and meeting closed.

Twelfth annual meeting of the Ontario Bee-Keepers' Association met in the City Hall on Jan. 5th. Meeting called to order at 3 p.m. by President Pringle, there being about fifty bee-keepers present. The Sec'y read the minutes of last annual meeting which were adopted, and also the financial report which was adopted. The Treasurer's report was read by Mr. McKnight, and after being audited was adopted.

Then followed the reading of the President's address.

#### PRESIDENT'S ADDRESS.

ALLEN PRINGLE.

BEE-KEEPERS' AND FRIENDS:—

IN meeting together again in our Annual Convention we naturally look not only back over the past year to see what *has been*, but forward over the coming year to see, if possible, what *will be*—or at any rate what we *desire* to be—for we are not always able to compass our desires or realize our anticipations, and if we are worthy citizens of this progressive age we will make every year an improvement on its predecessor not only in the matter of bee keeping but in every other matter. We ought, therefore, to be better apiarists than we were last year and better men and citizens in every way.

It is sometimes said that there is nothing but *change* in the world. Now, while there certainly is something else in the world besides change, certain it is that everything is changing—even the granite rocks and the "everlasting hills"! As to humanity and their doings, if every change is for the better, all hail to the changes! But some of the changes are, I am sorry to say, for the worse. The bee-keepers, however, being an exceptional lot, are I think mostly changing for the better. But I shall not moralize, or read you homilies. There is hardly time for that in these rushing times, though the necessity exists.

The changes in bee-culture have doubtless been greater during the past fifty years than during the previous five thousand years. From

the time long ago when the bees (so we are told) made a hive out of the anatomy of a dead lion, and Samson robbed them of their honey without smoker or extractor, there has been considerable change and improvement, not only on that peculiar style of hive, but in a good many other bee-keeping appliances. But if Samson had no smoker, or "bee-escapes," or other new fangled affairs of that kind, wherewith to circumvent those primitive bees, he had, it seems, plenty of strength, if that would avail him anything in a contest of that sort. At any rate, he got the honey in some way out of the carcass of that dead lion, which he had rent and slain a short time before. And Samson did eat of the honey, we are told, which is just what we would do ourselves under the circumstances were the hive of modern make and the contents therefore more toothsome. But although he was a hearty man and evidently not at all fastidious Samson was not able to eat all the honey he got for he took some away to his father and mother and they did eat. He also no doubt (though the account does not say so) took some to his affianced, for remember Samson was on his way to get a wife when he found that honey in the dead lion.

There has been of course great improvement in our methods and appliances since that time; and from that day to this, there has been a general and pretty keen taste in mankind (and womankind) for the sweet nectar of flowers, which, when gathered by the bees, half digested in transit, and stored in the comb, we call honey. This is one of the good appetites which man has ever since retained; while he has in the interval gathered up many bad ones. And as it is much easier to take up a bad habit than to get rid of it—an ounce of prevention being better than a pound of cure—it is advisable not to take the bad habits up, or even to nibble at them. But here I am again moralizing which is perhaps pardonable at the beginning of a New Year as we all form many good resolutions about this time, but few of us keep them. It is better however to attempt to do well and fail than not to try at all; and as human nature is said to be weak on some of its sides the failures may be condoned. But here I am again running off into a humily. Well, the fact is I have had no time at all of late to either think out or write out a set essay for this occasion; and when I sat down a few minutes ago to write something in the way of a presidential address I had no idea till my pen was inked what I was going to say. Nor is it necessary for me to say much here, further than to give you some account of my official work during the year and

of how I have carried out your behests delivered to me a year ago; as we have several papers forth coming at this meeting on important, and some of them, burning questions, which will no doubt be discussed with energy, and I hope profit, and at as great length as time (which waits for no man) may permit.

I shall, therefore, listen through with business proper after first merely congratulating you on a fairly prosperous and successful honey season throughout the province.

As most of you are aware, our principal work as an organization the past year, as of the previous one, has been the continued warfare against the foul brood pest. A year ago we hoped that another year of fighting would about vanquish the enemy in this province. But our anticipations have not been realized; not owing, I think, to lack of energy or ability in prosecuting the work, but owing to the wider prevalence of the disease than we supposed, and also to the failure of some bee-keepers to properly co-operate with the inspectors in their efforts to have the disease cured, whenever possible, instead of destroying the colonies. In addition to those obstacles the government grant, though larger by one third than that of the previous year, was insufficient to keep both inspectors at work the whole season. As it was, the grant was considerably exceeded; and although the Minister of Agriculture protested against this and complained to me that the inspectors should have been allowed to exceed the grant, he nevertheless, paid both their accounts in full. The Minister cannot be blamed for this protest as the grant was increased to the amount we suggested.

On my return from the St. Catharines meeting I called on Mr. Dryden and, in accordance with the sense of the meeting, laid the matter before him asking an increase to \$600. This, the minister assented to, and it was done; but the amount still proved insufficient. On the face of the urgent calls for the services of the inspectors, and the pressing necessities of the case, I did not feel warranted in calling them off in the middle of their work when the end of the grant was reached, especially as the deficit the previous year had been met by the government without protest. I would, however, take the liberty here of suggesting to my successor in office, and to the inspectors the coming year, the inadvisability of exceeding the grant whatever it may be—the protest from the department against such a course being now before us.

I need not go into details of the work done under the Act the past year, as the Inspector's

Report will set that forth. So far as I know the inspectors have performed their duty faithfully and well. Instead of destroying the colonies, they cure the disease, though not *secundum artem*. But whether scientifically done or not the disease seems to yield to their treatment, and the victim who thus gets rid of it will not be likely to bother his head about this theory or that—scientific or otherwise. The questions as to whether the worker bees become constitutionally affected with the disease and transmit it to the larvæ; and whether the queens may be similarly affected and transmit it through the egg; and whether the wax rendered from contaminated combs may in "foundation" become a cause of the disease; and whether the spores of *bacillus alvei* carried by the air from hive to hive may also cause it,—these are questions which are still unsettled and indeed in hot dispute. This is clearly a case (not common) of theory and supposed scientific facts (real or not as the case may be) clashing with the facts of experience—not narrow and isolated experience, but wide and accumulated experience. The real facts on both sides will of course remain, while the untenable hypotheses and speculations must ultimately give way. I can easily conceive how both sides to the controversy may be both right and wrong,—that is, the scientist may be perfectly right when he tells us he sees under his microscope the disease germs in the adult worker and queen; and he may be wrong in his theory or conclusion that such contaminated worker or queen transmits the disease to the larvæ or through the egg. On the other hand "the party of the other part" may be quite right practically in their treatment founded on the assumption that the honey is the chief if not the only medium of spreading the disease; and in claiming that such treatment, in their hands, always cures; and they may be wrong in their denial that the mature worker and queen may be constitutionally diseased with foul brood, and that the disease is never spread in that way. My advice to both sides would be to stick to, and hold on like ticks, to the facts—the real facts—but be careful about the theories not proven, and avoid dogmatism. I would also advise all who have to deal with the disease to stick steadfastly to the plan of treatment that cures, no matter what it is, and no matter what theory butts up against it. Our English apiarian brethren look with the utmost incredulity, if not contempt, on the methods of cure practised so successfully by our inspectors and others on this side the Atlantic; and to a great extent refuse on theoretical grounds to test

them; while we think their methods very queer if not ridiculous—proceeding as they do to treat the disease deductively, *secundum artem*. The only reason that our people don't try their methods is that by their own methods they cure successfully and what more do they want? Were it otherwise they would be glad to receive suggestions from any quarter. The difference between us seems to be just this: they adopt plans of treatment to fit the theories, right or wrong, which they hold about the disease, while our foul brood doctors pay but little attention to the theory or science of the matter, but adopt the treatment that cures. As to which is the wiser course of the two, people who are not bothered themselves with foul brood will differ in opinion; but I fancy there will be but little difference of opinion on the subject among those who are afflicted with the pest and wish to get rid of it with all the speed possible. Meanwhile, we cannot study the whole subject too deeply or too attentively in order to get to the bottom of it in both theory and practice.

At the last annual meeting of this association I was instructed by resolution to communicate with the director of the Experimental Farm at Ottawa and the president of the Ontario Agricultural College, at Guelph, and ask them, on behalf of this association, to have the necessary experiments made to determine whether the disease of foul-brood may be spread by the use of comb foundation from wax made of combs contaminated with the disease. In accordance with this, I first placed the matter before Prof. Saunders, and Prof. Shutt the chemist, of the Experimental Farm showing them what we desired done in the premises—the main point of which was to determine by experiment the degree of heat necessary to destroy the vitality of the spores of *bacillus alvei*, the foul brood microbe—and whether the degree adequate to the rendering of wax was sufficient. Both gentlemen professed their willingness to render us this service were it in their power, but unfortunately they had not at their command the special scientific apparatus necessary for the work.

I then applied to President Mills, of the O. A. C. at Guelph, and here is his reply:

"DEAR SIR,—In answer to your letter re Foul Brood in bee-hives, I beg to state that our Professor of natural history would be very glad indeed, to conduct the experiments necessary to determine the degree of heat required to destroy *bacillus alvei*; but we are like our friends at Ottawa, we have not the special apparatus necessary for such work.

I think the most likely place to get the test

"properly made is Prof. Ramsay Wright's Biological Laboratory, Toronto. I would suggest that you write to Prof. Wright.

Regretting our inability to do the work, I am  
Very truly yours,  
JAS. MILLS."

ALLEN PRINGLE,  
Selby P. O., Ont.

In accordance with President Mills suggestion, I wrote Prof. Ramsay Wright, of the University, Toronto, laying the whole matter before him, and asking his friendly services in the matter, I am glad to say, with success, as the following letter from the Professor will show:

University of Toronto,  
Dec. 31st., 1891.

ALLEN PRINGLE, Esq.  
Selby, Ont.

"DEAR SIR,—Referring to your letter of the 29th inst., I take pleasure in saying that I shall be glad to be of assistance to the Association you represent in settling the point in question.

I should require first to know the method adopted for converting the old combs into comb foundation, so as to get at the temperature employed. 2nd, to have some foul brood material from which to prepare cultures, and to test the vitality of the spores. Mr. Cheyne makes no remarks in his original paper on the subject on the resistance of the spores.

Awaiting your further communications on the subject,

I am, yours faithfully,  
R. RAMSAY WRIGHT."

In response to this, I have advised Prof. Wright that as soon in the spring as a sample of the foul brood material can be procured, it, with the information he requires, will be sent him. This association will, therefore, no doubt, in due time be in possession of the desired information on this important point.

"The President, vice-President and James E. Frith were appointed a committee a year ago at St. Catharines to consider the danger of the introduction of foul brood into Canada from the importation of bees, and if found desirable, to take such steps as will insure the protection of bee-keepers through quarantining, imported when deemed necessary."

After communicating with the other two members of the committee I proceeded to carry out the intention of the above. I put myself in communication with the Dominion Minister of Agriculture in reference to the matter, but for some reason or other could get nothing more in response than an acknowledgement of the receipt of my letters. This was probably owing to the topsy-turvy turmoil and confusion which reigned in official and parliamentary circles at Ottawa during nearly the whole of the last session, and especially at the time in the early summer when I addressed the Department of Agriculture. Under the circumstances the only

course open to me in order to accomplish this work, was to proceed to Ottawa, which I did, hoping to kill two birds at once by attending to the matter in question and also the other matter of foul brood experiments with Prof. Saunders. The result as to the former was all we could desire. After laying the whole matter before the Hon. John Carling, Minister of Agriculture, and Mr. John Lowe, Deputy Minister, it was decided that an order in council would meet our case, instead of an amendment to the Contagious Diseases Act. These gentlemen assured me that they would procure the passage of such order in Council whenever the *Ontario Bee Keepers' Association* or its representative deemed it necessary, and communicated the fact to them—at the same time instructing them definitely as to what was wanted in the matter of checking the importation of bees etc., or prohibiting them altogether, or quarantining them. This is all we could ask or expect; and the Association now stands in a position to protect itself and Canadian bee-keepers from that danger whenever necessary. I think I may safely say that this Association will take no unfriendly action against our neighbors across the lakes. Whatever may be done will be done solely as a necessity in the direction of self-preservation and self-protection.

I was also sent by this society last year as your delegate to the *Central Farmers' Institute*, whose annual meeting in Toronto in February last I accordingly attended. I prepared and read a paper there on "Bee Culture in Ontario," for which your delegate received a hearty vote of thanks from the Convention. Your delegate was also deluged with questions at the conclusion of the paper on this and that in bee-culture. These he endeavored to answer to the full satisfaction of the meeting, which manifested a lively interest in our favorite pursuit. The paper is as follows: (which I trust you will kindly take as read, as it will perhaps appear in our next annual report with which you will be supplied.)

#### BEE CULTURE IN ONTARIO.

Mr. Chairman and Gentlemen,—My business here is to represent the *Ontario Bee Keepers' Association* as their delegate to this farmers' convention. Were I merely an apiarian specialist I might feel a little out of place here, but being a farmer as well, and a working one, I ought to feel at home amongst farmers. I shall not, however, on that account take advantage on this occasion to bore you with a long essay.

The *Ontario Bee Keepers' Association* is a legally incorporated body with a membership ranging from three to four hundred, and has a

number of local societies in affiliation, to each one of which the parent society makes an annual grant for the encouragement and promotion of the industry. The bee keepers of Ontario number some tens of thousands and they produce annually nearly half a million pounds of honey. This province of Ontario in its honey yielding capabilities, as in many other respects, stands second to none in the world. Nor is apiculture in Ontario, either as a science or art, behind that of any other country. My own opinion is that she takes the lead in taxing the "busy little bee" for all it is worth—the same as she herself is taxed for more than she is worth, or at any rate more than she can pay and live decently.

The most formidable enemy bee-culture has to day to contend with throughout the world is the disease known as foul-brood, caused like so many human diseases, as science has disclosed, by a microbe which destroys the young brood. Ontario, I may say, has taken the lead of other countries in wise measures and vigorous action for the extermination of this pest as we have now in our provincial statutes an "Act for the suppression of foul brood among bees," recently passed, which is, without doubt, the best of its kind in the world. Under its provisions we shall be able speedily to overcome this greatest enemy to bee-culture.

In this as well as in other directions the *Ontario Bee Keepers' Association* is doing a most useful work in developing bee culture in this province, thus placing on our tables a wholesome, palatable, and cheap food—not merely a luxury, for there is more nutriment in 1 lb. of honey than 5 lbs. of fat pork. Our association is also doing its part in upholding the credit of Canada abroad as a producer. At the Indian and Colonial Exhibition held in London three or four years ago *Ontario Bee Keepers* exhibited many tons of the finest honey in the world and took the palm in the public eye and popular taste against all competitors. Our fields and forests yield abundantly of the choicest nectar nature produces any where.

I have always thought that bee-culture was a proper and legitimate part of agriculture, and, consistently with that opinion, I have always kept bees on the farm, and am, therefore, very well acquainted with the little insects through an experience of a quarter of a century. My stock of bees from year to year has ranged from ten to one hundred and fifty colonies, and my crop of honey from one hundred to ten thousand pounds. The bees I regard as a part of the live stock and bee culture a proper part of farm work, and I may say, with me, the most profit-

able part. I do not mean by this to advise every other farmer to go largely into bee-culture. While the great majority of them might keep a few colonies to advantage to supply their tables with the most wholesome and palatable sweet, only the comparative few can handle the bee successfully and profitably. Indeed, amongst the small bee keepers of "old box-hive" fashion it seems to be just the other way, the bees handle the man instead of the man the bees. They do about as they like and more than the manipulator likes sometimes.

Although the bee is a highly interesting and industrious creature and fairly peaceable, yet it always means business, and has a bumptious "business end" always ready to present to interlopers on very short notice.

But the honey bee performs an invaluable service in the economy of nature besides gathering honey for us. For this, if for no other reason, every square league of settled land in Canada ought to embrace within its area at least a few colonies of bees, else the clover seed and fruit crops must fall far behind what they might be.

I need scarcely say to you that the bee carries the fertilizing and fructifying pollen from flower to flower in our orchards, gardens and clover fields, thus securing a fruition of fruit in the one, and an abundance of seed in the other. This most important function and service of the honey bee is not duly appreciated. Between apiculture and horticulture especially, there is a close and indispensable connection, and the apiculturist, horticulturist, and agriculturist ought to work hand in hand as being mutually useful to and dependent on each other.

Horticulture, our nearest industrial kin, is, I believe, well represented here to-day, and I am pleased to say that the misunderstandings and differences which have sometimes arisen between us to the alleged injury done to grapes and other ripe fruits by the bees, are fast passing away. It has been satisfactorily proved, and is now very generally understood by the fruit growers, that bees do not puncture or injure sound fruit, whether mature or immature. The bee will, it is true, sip the oozing sweets from a broken grape, peach or pear, but never punctures or injures in any way sound fruit, while the benefit the bee brings to the fruit grower in fertilizing his blooming trees and vines, he would be better able to estimate were the service withdrawn. Indeed, he has found it necessary when growing exclusively under glass when the bees were shut out to introduce them or fail his crop. Thus it is that the bee keeper and fruit grower are mutually beneficial

to each other, and ought, therefore, to understand and appreciate each other better than they do.

There is also, unfortunately, here and there, a prejudice in the mind of the farmer against the bee, which is equally unfounded and ought to be removed. Instead of realizing the great service it renders him apart from the honey it gathers, he charges that that field of buckwheat of his will not yield so much grain after the bees have 'sucked the flowers,' as he calls it, but he is greatly mistaken. He has more grain instead of less. Let him go to the leeward side of his buckwheat patch on any fine morning when it is in bloom and his sense of smell ought to convince him without any scientific argument that the nectar of his blooming buckwheat or clover is rapidly escaping into the air by evaporation. "Instead of wasting its sweetness" thus, why not let the busy bee take it up for our pleasure and profit, and fertilize the flowers at the same time? For twenty years past I have been in the habit of sowing buckwheat every season at several different times, partly for the bees and partly for the crop, and I almost always have a crop of grain as well as honey from each sowing. The notion is general that in order to get a crop of buckwheat the seeding must be done about the end of June or first of July. I sow my first lot about the end of May, the second some three weeks later, and so on till August, each sowing usually producing a fair crop of grain, and some a super-abundant crop. The last sowing is, of course, sometimes caught in bloom by the fall frost, but in that case it can be immediately ploughed under for manure, and nothing is lost. I am well aware that in parts of Ontario, buckwheat is in bad repute among the farmers, and almost unknown. Nevertheless, it is all the same, a good and profitable crop. Three years ago when that terrible drought in the east scorched up other kinds of grain, many farmers in Prince Edward and other counties "saved their bacon," not this time for buckwheat but with buckwheat. In desperation they ploughed up their scorched fields of grain—or rather no grain—and sowed to buckwheat. The rains came at last, and they reaped thoutan and thousands of bushels of the despised and abused buckwheat—all the crop they had, in fact. I am a friend of the buckwheat every time. No farmer who understands his business need be troubled with that bugaboo of "after seeding" as it is called. I may say here to those who have not tried it, that the Japanese variety of buckwheat is by far the best of any; and next comes the Silver-hull. The former is much larger grain,

more productive, and better in every respect than the common kinds. When I took some of it to mill for cakes the miller complained that it would not go through his buckwheat sieves on account of its enormous size and wanted to know where in earth I got it. And the cakes it makes, spread over with honey instead of being soaked with pork gravy, are fit for gods or men, and angels or women, (which perhaps means about the same thing.) But this is a digression—a pertinent one, however, for buckwheat, like the fruit tree and clover plant, yields a double crop—one of honey and one of grain.

In conclusion, I may draw attention to one other fact from the economic standpoint in favor of bee culture as an important branch of agriculture. Every bushel of grain and pound of meat which we raise and sell off the farm represent and carry away with them a certain amount more or less of our agrarian capital, or, in other words, the fertility of our soil. Not so much with the sweet nectar of the flowers, which would be mostly wasted in the air were it not ingathered by the bees. When you sell 20 bushels of barley for \$10 (and you can hardly get that unremunerative price for it) along with the barley you part with certain of your soil elements, which means more or less impoverishment of your land; but when I sell 100 lbs. of honey for \$10 the transaction involves no corresponding impoverishment—that is, I have saved and gathered what would have been otherwise practically lost. I am, therefore, a more profitable producer of wealth in the body politic and the body industrial than either the agriculturist proper, the horticulturist, or the stock-raiser. This economic fact, together with that other fact, that pure honey is the most palatable and wholesome sweet made in the whole laboratory of nature or art, ought to place apiculture in equal rank with, if not ahead of, every other branch of agriculture.

Moved by Mr. Hodgins, seconded by Mr. Haycock, that a vote of thanks be tendered to Mr. Pringle for his excellent paper on bee culture. Carried.

The President—What has been your average income from sales of honey and bees per year from say 20 colonies?

Mr. Pringle—My average returns per colony for a number of years by spring count, by that we mean in the spring before they begin to swarm, has been about 50 lbs. I have taken 100 lbs. per colony, but on the average about 50 lbs. At 10 cents, that means \$5 worth of honey.

Mr. Kennedy.—What kind of bees do you keep?

Mr. Pringle.—I have kept the different races

of bees for some years. First I kept the native bee, the brown or German bee, which is the usual bee kept in this province. It cannot reach the nectar in the red clover except in a very dry season when the heads are small. I have tried the Italians and they can reach it unless the heads are very large, their tongues being longer. I know of no other bee that would do as well as the Italian. I may say that during the last two or three years the honey product of Ontario has been quite a failure as it has been throughout many parts of the world. The secretion of honey in the flower requires a certain temperature and if it is too dry or too wet it is equally unfavorable, and on account of the partial failure for the last two or three years the price has been a little higher than usual. There is a very erroneous impression in the public mind with regard to feeding sugar to bees for the purpose of making honey. Bees can be wintered on sugar syrup successfully, but we don't feed sugar to produce honey because we cannot get honey by feeding sugar to the bees, they cannot manufacture sugar into honey. While sugar and honey are nearly the same there is the difference that one is the nectar of flowers and the other is just sugar. We can feed syrup from No. 1 sugar to winter them on and they will winter successfully on that and it is often done by the best bee keepers in the province because we find our stocks sometimes short, and we have to carry them through, but the better way is to leave enough honey with them. I am not in favor of feeding sugar at all but if they are falling short it is better to feed them sugar syrup than to feed them bad honey. I think if you take the trouble and expense of feeding sugar altogether into account I don't think it is profitable to take away the honey and winter your bees on sugar, as you can winter them successfully on buckwheat honey that is not worth quite as much as the light grades of honey. I winter my bees almost every winter on buckwheat honey and I find it is a good winter store. Some people think it is not as good as the light honey but my experience is the contrary, it makes perfectly wholesome winter food. As to the adulteration of honey, some nine years ago a professor of science in the States made the assertion in the Popular Science Monthly that comb-honey was manufactured; that the comb was first made by machinery and then filled in, the whole thing being done without the mediation of the bees at all. That gentleman has done more harm to the industry throughout the world than any other slander that has ever been uttered. It



was reported in the magazines all over the country and the people who did not understand the matter believed him. The fact is there has never yet been a pound of comb-honey manufactured; it is beyond the art of men to do it. A year ago last fall the editor of the Popular Science Monthly found out for the first time that slander in his magazine had done our industry great harm and wrote to me asking me to correct it. I did so through his own paper challenging the statement and we have heard nothing from the professor since. We offered \$1,000 to any man that would bring forward one pound of this manufactured honey or tell us where it could be had, and I myself offered 100 colonies of bees, but they have never come to claim my bees or the money because the thing cannot be done. In regard to wintering bees my opinion is that the cellar for the common farmer who keeps a few stocks is the best place if it is fairly dry. I can winter mine outside on the summer stands by properly packing, but I would not advise any one inexperienced in bees to attempt them outside. I generally winter my bees in my cellar, where I pack 100 or 150 colonies in together and my average loss is from 2 to 5 per cent.

On retiring from a second term of office as president of this society, I may say that I have faithfully endeavored to perform its duties one and all, and I hope to your satisfaction. I thank you for the honor you forced upon me against my inclinations, and for the uniform kindness, courtesy, consideration and good feeling shown towards me personally at all times by you all.

ALLEN PRINGLE.

It being six o'clock, meeting adjourned until 7 p. m.

#### TUESDAY EVENING.

At 7-15 p. m. meeting called to order.

The president's address was discussed. The matter of quarantining bees was discussed. W. F. Clarke would prohibit the importation of bees by the pound but wanted to be able to get queens and colonies when he desired. Mr. Frih said the importation of bees by the pound was the cause of his losing 120 colonies by foul brood, he thought that bees should be quarantined. Mr. McKnight thought that quarantining bees would be impracticable. Moved by F. F. Hall, seconded by W. F. Clarke that the thanks of this meeting be tendered the president for the very able address.

Mr. S. Cornell, delegate for the North American Bee Keepers Association, reported.

#### REPORT OF DELEGATE TO N. A. B. K. A. AT ALBANY.

MR. S. CORNELL.

To the President and members of the Ontario Bee Keepers Association.

GENTLEMEN:—Pursuant to previous arrangements, the 32nd annual meeting of the North American Bee Keepers Association was held at Albany, N. Y., from the 8th to the 11th of Dec. last. If in selecting a place of meeting, the object were to get together the greatest possible number of the largest and most successful honey producers in the world, Albany was well chosen. Within easy reach of that city are several bee-keepers who number their colonies not only by hundreds but by thousands, and their products, mostly comb honey, are reduced by tons. It was a real pleasure to have an opportunity of becoming personally acquainted with such men as P. W. Elwood; Capt. J. H. Hetherington, Mr. Doolittle, Julius Hoffman, W. E. Clarke, W. W. Carey, J. E. Craw, J. A. Barker, W. D. West, J. Vanduse and many other bee-keepers of note belonging to that part of the country. Eleven States were represented and there were three representatives from Ontario. In accordance with instructions given to the officers at the annual meeting in 1890, the association has been incorporated under the law of the State of Illinois with head quarters at Chicago. Besides the right to hold property and to appear in court, it is expected that incorporation will assist in obtaining state aid for an exhibit at the approaching World's Fair. The opinion was expressed that in as much as our Ontario Society is affiliated with the North American, our Canadian producers should unite with those of the United States, in making one grand exhibit; but the Canadian delegates replied that it will be found that the products of all the different countries will be grouped by themselves, and that for this reason Canadian honey cannot be staged with that of the United States. At previous meeting; Dr. A. B. Mason had been nominated on behalf of the United States, and Mr. R. McKnight on behalf of Canada, to take charge of the honey exhibit at the Columbian Exhibition. At the Albany meeting it was stated that Dr. Mason and his committee had interviewed the officials on the matter, and they were informed that since the position to which the Dr. had been nominated will be one of emolument, it will be a matter of patronage. In consequence of this information Dr. Mason does not now expect to receive the appointment.

During the discussion, which followed the reading of Dr. Miller's paper on the

size of sections the opinion was advanced that the form of an oblong is more pleasing to the eye than that of a square, hence, the reason why we have oblong panes of glass, oblong windows, and oblong doors instead of square ones. It seemed to be the opinion of the meeting that oblong sections like C. J. Hetherington's, which is  $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{8}$  are handsomer than the standard section which is  $4\frac{1}{2}$  square.

The matter of grading comb honey was referred to a committee which included the representatives of two of the largest dealers in comb honey in the city of New York. The committee recommend four grades, fancy white, fair white, mixed and buckwheat.

The convention was favored with a visit by Professor Lintner state entomologist for the State of New York. In his address he said that the proper way to kill the larva of the codlin moth is by spraying the fruit trees with an arsenical poison just after the bloom has fallen. But he said that fruit trees have lately been attacked by other insects, and if these are to be killed in the same way it is necessary to spray before, and during bloom. He referred to the popular idea that spraying kills the bees, and said that as yet they have no conclusive proof that such is the fact. He asked the bee-keepers present to assist in determining this point. He requested that a research be made under any fruit trees which are known to have been sprinkled while in bloom and if dead bees are found, to collect them and take them to some chemist to be tested for arsenic. If arsenic should be found to be present in such a case it may be taken as conclusive proof that the spraying had killed the bees, and the practice of spraying trees while they are being visited by bees will be discouraged in all cases.

Mr. J. M. Humbough a member of the Illinois Legislature was present and said he had charge of a Bill to prevent spraying during bloom. In support of the bill he was furnished with facts which showed that large apiaries had been almost ruined by the fruit growers of the west spraying their trees while in bloom. He had heard that the other bee-keepers in other States, also were about to ask for Legislation for the protection of their apiaries.

A hearty vote of thanks was tendered to Pro. Lintner for his address.

Washington, D. C. was selected for the next place of meeting with the unanimous understanding that the convention of 1893 shall be held in Chicago.

All of which is respectfully submitted.

S. CORNELL.

Delegate.

It was moved by R. McKnight, seconded by A. W. Hall that the report be adopted, filed and engrossed in the report of the provincial government for printing. Carried.

It was unanimously resolved that a committee composed of Messers McKnight, Corneil, Clarke, and the president discuss the matter of again affiliating with the North American Bee Keepers Association. Carried.

The matter of spraying fruit trees with poison was discussed for a good length of time.

Mr. McEvoy thought that bees were poisoned considerably and thought there should be something done to prevent spraying at times when it did not do the trees any good and poisoned the bees. He thought there should be a committee appointed and approach the government and have an act passed to prevent spraying when not needed.

Mr. Corneil said that it was not yet established by entomologists that bees have been poisoned by the spraying of trees.

Mr. Chas. Baker, a nurseyman, thought it a great mistake to spray with poison, as it should be done after there was no danger of the bees being killed (that is after the bloom was over), and that often too much poison was used and killed the trees. He would approve of having spraying done away with until after any danger of killing the bees.

Mr. Gemmill said that he finds a lack of knowledge of spraying trees at the proper time, and thought that there should be lectures given through the country on the subject.

Mr. Alpaugh did not know that any direct evidence could be given to prove that bees had been killed by the spraying of trees, but thought that there was enough circumstantial evidence to prove it. He noticed that he lost trees in the city of St. Thomas when he did not lose them in the country, and believed it was from the spraying of fruit trees with paris green.

Mr. Corneil said that a fruit grower had said that no intelligent fruit grower sprays his trees when in full bloom.

Mr. McEvoy said that bees could be killed by poison, as he knew of a case in Ontario county when a person had poisoned his neighbors bees.

Mr. L. Traver, of Alvinston, was asked to attend this meeting as a delegate from the Lambton Bee-Keepers Association, and bring the matter of spraying trees before the Ontario Bee-Keepers' Association.

Mr. Baker thought there should be two periods for spraying.

Mr. Joitt, of Arkona, thought spraying a mistake, he was opposed to it.

Mr. Baker said that bees would take poison.

Mr. Gemmell said bees would take poison. For an experiment mix a little poison with any sweet substance and give it to the bees, when there is no honey to be gathered, it will be found that they will take the poison.

Mr. Humphries said he had lost thousands of bees by poison. After the discussion the following motion was passed by a vote of 19 to 7.

Moved by Mr. McEvoy, and seconded by Mr. J. Alpaugh, that Messrs. Pringle, Gemmell, and E. D. Smith, a fruit grower, be appointed to wait on the Minister of Agriculture in order to seek legislation to prevent spraying fruit trees to the detriment of bees at a season that is of no benefit to the fruit.

Mr. McKnight asked if honey taken from fruit alone sprayed with paris green would kill the bee larvae.

Mr. Cornell thought that the larvae would not be killed.

Mr. McEvoy said that he saw brood that had been killed with poison, he thought that the danger was as great to the larva as to the bees.

Mr. Pringle said he thought that poison taken along with honey would kill the bees if not digested.

Mr. Alpaugh said if there be paris green in the honey, and fed, the bees and brood would both be poisoned.

Mr. Frith said that he thought that the sac for carrying honey would not be affected by poison.

Mr. D. A. Jones said that bees taking whiskey in their sacs would get intoxicated.

A paper by D. Chalmers on hives and wintering was read and discussed.

### HIVES AND WINTERING.

BY D. CHALMERS.

*Mr. President and Fellow Bee-Keepers:* In presenting a paper on this subject, it is not my intention to try to determine any particular styles of hives, but I will dwell more particularly on the requisites in and about a properly constructed bee domicile. The first thing then to be considered is the capacity of a hive. It is very generally considered that that has been carefully tested and properly demonstrated years ago by such men as father Langstroth, the lamented Moses Q. Limby and others, when they placed the area of the brood chamber at about 2000 cubic inches. That estimate however, allowed the bees passage ways between the ends of frames and the interior of the hive—a feature which weighs heavily against open end frames. Take for instance a hive of closed end frames, which will give you as much comb space as a

open end frame would do, and what do we find? We find that a hive 12 inches wide and 12 inches deep made for the former, would not require to be as large by fully 100 cubic inches as a hive made for the latter.

Although I do not use closed end frames myself, yet, I have a strong inclination to believe that better results could be obtained from them than from open end frames.

Those blank 100 cubic inches you specified, may well be classified among the leakages of the hive, and who can dispute the fact that the greater the leakages the more will brooding be retarded. In the use of open end frames, the loss in this way will be less in a long frame than a short one. But another evil here crops up, that is, the sagging of such when filled. If not made of heavier material, and if sagging takes place you all know that passage ways under the frames will be contracted, while those above will be widened—the latter evil inducing the bees to build comb where not wanted, while in the former the comb frames will be glued down solid. To my mind a hive of proportionate dimensions would be 13 $\frac{3}{4}$  inches long by 12 $\frac{1}{2}$  inches wide and 12 inches deep. This gives you a hive containing 2000 cubic inches, but a shorter hive by  $\frac{3}{4}$  of an inch to suit closed end frames with equal comb space, and we get a hive which we might term "Anno Domini" 1892, as that is the number of cubic inches it would contain. But while many besides myself favor a hive of this description, others again advocate a much longer and considerably shallower hive. However we should all aim at getting a hive of just the right capacity, and taking it for granted that the previous figures are correct or nearly so, for a hive for brooding and wintering purposes, yet we have to admit that there is not room enough in it for a strong colony of bees during the honey harvest. We then have to resort to tiering up as bee men term it, or in other words place another hive above or a case of section boxes. This is where we get our surplus. The former is used if we purpose extracting, but if honey is wanted in the comb, then the latter is more convenient. In either case the top of the lower frames must be at some distance from the bottom of the upper frames, or sections, otherwise, the bees would glue the one to the other. We should aim too at bringing such parts of the interior as closely together as circumstances will permit. Wherever passage ways must of necessity be left between any two parts of a hive, they should not be less than  $\frac{1}{4}$  of an inch, nor exceed  $\frac{5}{16}$  in depth, or we would have to contend with evils hereinafore pictured. Such passage ways we

term bee-spaces. Between the lower and upper frames or supers, we find a double and sometimes triple bee-space. The apiarist has had to do battle in trying to confine the queen or mother bee to the brood chamber, and yet allow the honey gatherer to pass other combs above. This fight however has been reduced to a mere minimum since Mr. D. A. Jones of Beeton, applied zinc so accurately punched with oblong holes, that the queen is put at defiance, her shoulder being of somewhat larger proportions than that of the workers. The use of this zinc over the brood chamber is wherein it becomes necessary to have a double bee space, and any contrivance there which causes the queen to halt, is termed excluders. During this past summer I devised a mode of using this zinc which I consider the most practical form yet introduced, which is to cut it into narrow strips not exceeding four inches, and long enough to cover the hive cross ways. If the zinc  $5/16$  of an inch in one edge of those is bent to a right angle to rest on the comb frame, the top of which should be just one space below the level of the top of the hive, the flat edge of first pieces of said pieces rests on the edge of hive, and each succeeding piece rests on the one previously placed until the last is reached, when it is reversed and is supported the same as the first one. By using this zinc in some such manner the upper frames are within two bee spaces of the lower ones. While in using it by the Heddon Tinker plan they are three bee spaces apart, and a bee space in the hive used contains fully 50 cubic inches, while in the Langstroth it is about 70, which means that amount of space to be filled with bees for nothing, as there is not, or should not be, any comb there.

As it is very desirable for comb honey producers to have well devised supers, and as I am not in the supply business it will not be amiss I hope, to show and explain to you here and now a super which I brought to light in June 18th last. A matter of no little importance in bee hive is to have the comb frames spread to a proper distance apart, they can, we confess, be spaced considerably wider in the surplus hives than in the brood chamber, in the latter  $15/16$  of an inch from centre to centre is sufficient, while in the former  $1\frac{1}{2}$  inches is not too much. Care should be used in suspending the frames to have as small a portion of them touch the hive as possible. All hives, of course, require a bee entrance at the bottom and a board or other covering. This brings us to the exterior of the hive. When there is nothing very material to note other than if the hive was to

stand the weather it is better to be well painted, but if protected by an outer case, it is better without paint and costs that much less. I feel convinced that a colony of bees will winter better in an unpainted hive than in a painted one.

This brings me to the second part of my paper on wintering on this subject. I will be brief. I have discarded cellar or indoor wintering. I have concluded to describe the clamp and use. It is built to accommodate two hives deep in summer, while in winter it affords three inches of packing under the hive and four around, and as much as you wish above. The bottom fits inside to allow the sides to run the wet over, the siding lies horizontally, the points are bevelled or ship-lapped, it is shanty roofed and the roof is shingled. The siding for front and back is nailed to two narrow strips that do not quite extend to the bottom or top. When the clamp is constructed they stand on the bottom, while they require to be short of reaching the top to allow the rafters a rest inside. By using strips in the corner the clamp is much stronger and no care need be used to break joints, and should you wish to knock them down in summer there would not be so many pieces, but it is quite unnecessary to do so, as no better sunshade could be provided. There are three boards in each bottom, the two outer ones are nailed to two strips for the hive to rest on, while the centre board is left loose to be removed in summer to allow a current of air to pass through the clamps. The front of the roof requires to be raised a little to give sufficient ventilation there are just two rafters which are fitted inside of ends to hold the roof in place. A board of proper width is placed between the interior of the clamp and front of rim to allow the bees an opening through the packing, this board is nailed to two bevelled pieces which forms the ends of entrance. There are two tin slides with a hole punched in each to afford a catch in opening or contracting the entrance.

Before closing the hive the clamp is filled to level of bottom pieces with ashes, cork, dust. Chaff is another packing, and when the hive and entrance fixtures are in position fill in all around with packing, but not over the top until you see that provision is made for the moisture to escape through the covering of the hive.

Thanking you for your attention, and trusting my explanations have been sufficiently explained and of benefit to you.

Mr. McKnight thought bees wintered better in separate clamps than where a number of hives were together as when he had wintered his

separate, the result from the colonies was much better.

Mr. Duncan thought when bees were set out on clamps with a number in them, the bees would get confused and perhaps get in the wrong hives and cause a loss.

Mr. McKnight asked Mr. McEvoy what his experience was in regard to a very strong hive or a second or third swarm for wintering. The best results were from strong colonies. Mr. McKnight considered he got the best results from second or third swarms.

S. Travers thought bees wintered in clamps with a number of colonies as well as in single clamps. Mr. Pickett thought that bees would intermingle after being set out of the cellar in spring, unless set out quietly from the cellar. He set his bees out at night.

Mr. McKnight asked why bees wintered better on the top rows when in the cellar. The general impression was that it was drier at the top of the cellar.

Moved by R. H. Myers, seconded by Mr. McEvoy that Mr. Chalmers be tendered a vote of thanks for his able paper. Carried.

End of first days proceedings.

#### WEDNESDAY MORNING.

Jan 6th, 9 30 a. m. President and vice-President being absent Mr. Pickett was appointed chairman until the President arrived. Meeting called to order, Mr. R. H. Smith of Bracebridge, read his paper on apiarian exhibits. After being discussed it was moved by Mr. McEvoy, seconded by Mr. Myers that a vote of thanks be tendered Mr. Smith for his valuable paper. (It will appear in next week.)

A report of the affiliated societies was read, by the secretary, after which it was discussed.

#### THE SECRETARY'S REPORT OF THE AFFILIATED SOCIETIES.

We have eight affiliated societies this year, Bruce, Listowel, Lampton Middlesex, Oxford, Brant, Haldimand and Norfolk. All these societies have sent in a report excepting the two last. The six reported have a total membership of 138; the number of colonies 3648 in the fall, 2982 in the spring; an increase of 22%. The production of comb honey was 26147 pounds, or an average of 5½ pounds, and of extracted honey 86587, or an average of 29 pounds. If we compare these reports with last year we will find that there is very little difference in the average production of honey per colony. The amounts being 5½ comb or 26 extracted. There was not as great an increase as last year, it being about

22% this season to 42 last. The grants given to the societies have partially been expended in prizes &c., at Agricultural Fairs and for lectures, but in some cases the societies hold quite a balance on hand.

It was thought that the by-law should be amended in regard to how the grants from the O. B. K. A. may be expended.

The following motion was passed. Moved by S. Corneil, seconded by Mr. McEvoy that by-law No. 14 be amended so as to permit affiliated societies to apply a part or whole of their grant from the O. B. K. A., in the distribution of apiarian literature or in sending delegates to the Provincial Association meetings.

The foul brood inspectors report was read by the inspector, after which it was discussed for a time.

#### Foul Brood Inspector's Report.

MR. MCEVOY.

COMMENCED my official work on the 18th of May and with the exception of a few days was out until the 3rd of October. I inspected 197 apiaries during the season. Those apiaries I inspected were in the counties of Welland, Lincoln, Wentworth, Wellington, Halton, Peel, York, Ontario, Hastings and Simcoe, and in the cities of Hamilton, Stratford, Guelph and Toronto, after a careful consideration of the number of diseased apiaries which I found in so many localities I believe there must have been over one thousand cases of foul brood. In most apiaries where I found foul brood. I did not examine all the first time but showed the disease to the owners telling them how to cure and at the same time warning them that I had to burn what they failed to cure. I gave orders for the treatment of such apiary according to the condition I found them in. I then took the greatest of pains to explain every thing very thoroughly to the owners and then expected every one to cure their apiaries of that terrible plague by my methods of curing foul brood, which are by far the best of any in the world. To have all diseased apiaries cured in the most profitable manner, and have as many if not more colonies at the close of the season than when I began, was always a consideration of mine. I looked closely after all the diseased apiaries in the villages, towns and all places where the bee yards were near each other, because I knew that if any diseased colonies in a neglected apiary were to get robbed by bees from neighboring apiaries, so near those, they would all soon have the plague. I visited several localities the second time, and am well pleased with the way the bee-keepers took hold of the

disease and went in for a cure. In August I got an order to visit the bee yards at Tavistock, and there I found Mr. Schaffers apiary one of the worst used up with foul brood of any I ever saw. I told Mr. Schaffer to make wax at once of every comb in his colonies and out of them, and to put every two colonies into one before he began to cure and then to feed each colony. There was no honey coming in at that time. Eight days from that Mr. Schaffer had his colonies cured of foul brood, and in grand condition. After that, while on my rounds I drove Mr. Gemmell to Mr. Schaffers to see the good job, we made out of such a horrid foul brood apiary at a time when little or no honey was coming in.

In June I sent Mr. Bray to work in the county of Simcoe. I again sent him out in the same county in the last part of August. When he got through he sent me in a sworn statement of his work. He inspected eighty-one apiaries and found thirty-five apiaries with foul brood. Mr. Bray's time, car fare and livery hire amounted to \$116.40. My time, livery and car fare amounted to \$650.50.

Wm. McEvoy,

Woodburn, Jan. 2, 1862.

P. S. I burned one colony of bees at Guelph, one in Stratford, and ordered four burned in Woodstock which were burned by the owners.

W. McE.

Hamilton, Jan 4th, 1892.  
Meeting adjourned until 2 p. m.

### WEDNESDAY AFTERNOON

The president called the meeting to order. Mr. Corneil read the report of the committee in regard to Bee Journal. Mr. Gemmell read the following paper on the question of a new Journal :

#### SHALL THE BEE-KEEPERS OF ONTARIO HAVE AN INDEPENDENT BEE JOURNAL OR NOT?

BY F. A. GEMMELL.

As this subject has already been discussed and also ably handled in a paper by Mr. Jas. E. Frith read at St. Catharines last year, I need scarcely add more now, except to ask shall the bee-keepers of Ontario have such a Journal? If not, why not?

There was a time when insurmountable difficulties were in the way of making a practicable and financial success without a supply business being attached thereto. Things have changed, actual proof is not wanting to back up the assertion. Who doubts them? If there are any such, I would refer them to the review published at Flint, Mich., as proof.

Apiiculture is not now what it was in years gone by, nor in fact what it was 15 years ago. It is progressing, notwithstanding this statement there have been many induced to enter the same from having only the rosy side of the business presented them. Can any one dispute this? If so, now is the time, and here the place to do it.

I claim had such a periodical as has been mentioned, been published ten years ago, that foul brood, the great curse of our present time, would not now be a raging epidemic; but instead all now keeping bees, and many now out of the business, would be to-day enjoying the pleasure of bee-keeping with immunity from the pest, and profit to themselves. Am I right, or am I wrong?

Mr. J. B. Hall would like to have a new Bee Journal. Mr. Frith said that Journals were run by members of other societies, religious and otherwise, and he thought it would be an advantage to have a new one. He referred to the success of the Canadian Horticulturist, which started fourteen years ago with sixteen pages, it has now thirty-two. This Journal was given to members of the Fruit Growers Association, they only to pay their membership fee of one dollar to the association. In addition to the Journal, each member is given their choice of eight or nine kinds of fruit trees. He thought a Journal would be an advantage to the bee-keepers of the province. Mr. McKnight thought that a Journal could not be made a success. Mr. J. K. Darling thought that we could not manage a Journal independently.

Mr. Hur asked the question where would the funds come from to run a Journal? Mr. Corneil said the report of the committee would show where the money might come from. Mr. D. A. Jones said that the C.B.J. could be purchased by the O.B.K.A. if they desired. Moved by Mr. Clarke, seconded by S. Corneil, that a committee be appointed so confer with the managers of the C. B. J. to see what arrangements could be made. Carried. A Committee composed of W. F. Clarke, S. Corneil, F. A. Gemmell, R. McKnight, Jos. E. Frith, with President added.

Moved by Jos. E. Frith, seconded by Mr. Gemmell, that the report of the committee be adopted and a copy of it be sent to the American Bee Journal and Gleanings.

The copy for this report has been mislaid but we hope to publish it next week.

R. H. Myers read his paper on "rendering old combs, &c." A discussion followed.

#### RENDERING OLD COMBS.

BY R. F. MYERS.

How to render old combs so as to get out all

the wax and have it clear and in a suitable condition for market, is a problem that has taxed the minds of the best bee-keepers all over the land, and many have been the methods resorted to from time to time. It is not my purpose to explain all the methods that have been used, because many of them are only practicable in the hands of the specialist supply dealers or by those that have access to a good supply of steam, but to call attention to two entirely different ways of rendering combs, new or old, no matter how damp, or moldy, or dirty with dead bees, larvae, honey & c., or bits of wax, cappings, or any other scraps that contain bees wax.

I will try and make this matter so plain that every one can see that they are applicable to every bee-keeper, whether they own two colonies or two hundred.

The method which is at once the easiest, cleanest, in fact, an automatic method, and which produces the finest wax of any process known to date is the *Sun Wax Extractor*. It is very handy, and can be placed out in the yard in some central location where all kinds of scraps or even whole combs (frames and all) may be dropped into it, and when the sun shines it commences work, the wax produced being nearly white, and the refuse reasonably clear of wax. I will not attempt to describe the sun wax extractor here, because being in the supply business I would be accused of trying to advertise myself. The other method is old, but if carried out as here directed, will get every particle of wax out of everything that goes through the process.

Take any vessel you may have convenient in which water can be heated, the size to be such as will be best suited to your needs. I make a bag out of cheese cloth or 5c. factory cotton large enough to fill the vessel, leaving just enough room to turn it over with a stick when full. Pound the combs up fine (if you leave it until cold weather it will be easier done) fill the bag up, put it into the vessel of water placed on a fire and heat it up to the boiling point *but do not let it boil*. Now, with a stick or two, keep turning the bag over every few minutes for about an hour, then press the bag down to the bottom of the vessel, turning it over and over, pressing and working it all you can for ten or fifteen minutes. Place the sticks in such a position as will keep the bag down under the water. Lift the vessel off the fire, allow it to cool as slowly as possible, and you will find that the refuse does not contain wax enough to hold it together. When all is cold the wax will be in a cake at the top of the water, with a small

portion of sediments at the bottom of the wax. The longer it has been in cooling the more distinct will be the line of separation between the wax and the sediment.

One thing I would strongly impress upon the minds of those melting wax is that if they desire to preserve the finest color possible, never allow it to come in contact with iron, zinc, or brass while melting.

Mr. McKnight—What effect would there be in wax that was brought to a temperature of boiling or a degree or so less. Mr. Myers said when wax bubbled, particles that get exposed to the steam will not form properly and apparently caused a great deal of sediment. Mr. McEvoy said that in melting wax it should not be boiled. Mr. Alpaugh would not render comb in hot water or steam, but would render them in an oven or a Solar wax Extractor, as there should be no effect of dampness. Mr. Jones thought that wax could be over-heated in an oven.

Mr. Corneil said that Mr. D. A. Jones said that he had heated wax up to a degree of 230, and that the wax did not seem to be hurt. He (Mr. Corneil) had put a thermometer in his wax extractor which went considerably over a degree of 212, and this wax appeared to be a good quality.

Mr. Corneil described his Solar wax Extractor. He had it packed at the sides and bottom with saw-dust, and had two glass covers in which the heat could be raised to a high degree. Mr. Darling asked Mr. Corneil if the heat would ignite wood or saw-dust. Mr. Corneil answered that the heat went up to 228 degrees in his extractor, but he thought that about 500 degrees was necessary to ignite wood.

Mr. J. B. Hall said that formerly by melting combs in water he could not get wax without sediment, but now by using the Solar Extractor he got the wax clear.

Mr. Meyers was asked if he noticed in the wax made from light or dark combs, when boiled in a bag it is dark, but if put through sulphuric acid it will be fairly bright.

Mr. McKnight asked Mr. Myers if the action of the sulphuric acid had any other effect on the wax besides brightening. Would it make the wax brittle. He did not notice any difference.

The committee on affiliation with the North American Bee Keepers' Association reported as follows:—

#### REPORT OF COMMITTEE ON AFFILIATION.

To the President and members of the Ontario Beekeepers Association:

Your committee to whom was referred the

relation of Canadian Bee Keepers to the North American Bee Keepers Association, beg leave to report :

That the North American Bee-Keepers' Association (as its name implies) was originally founded on an International basis; the United States and Canada being parties to, and partners in the organization. For upwards of twenty years, and until a very recent period, this International character has been maintained, notwithstanding the manifestation of a disposition on the part of some United States bee-keepers, to regard and speak of it as a National Institution. This feeling took definite and formal shape, at the annual meeting held at Keokuk, Iowa, last year when a proposal to incorporate the Association under the State laws of Illinois was made and agreed to.

The delegates from this Association, present at that meeting met the proposal with earnest remonstrance, emphatic protest and firm opposition, but in spite of their efforts, a Committee was appointed to incorporate the body with head quarters at Chicago. One of your delegates was named as a member of that committee, but from what subsequently transpired, he was led to believe that those with whom he was associated cared little for his opinion on the subject. Moreover, we have reasons for believing that the official report of the Keokuk meeting in the matter of the protests made by your representatives there is largely characterized by a *suppressio veri*. That communications sent by them to two leading Bee Papers in the United States, discussing the subject, were not published, and that the great mass of bee-keepers within the jurisdiction of the Association were denied the information necessary to a full and proper consideration of the matter, and of the means of arriving at a discrete and just decision, as to the effect of incorporation if carried out as proposed. A few weeks ago it was announced in the A. B. J. that incorporation had been effected. No particulars were then given. At the annual meeting held a month ago in Albany, N. Y., the report of the Incorporation Committee (which report had never been submitted to your representative on the Committee, and who was present at the meeting) was presented and adopted. In brevity and *naivette* it is an official curiosity. No information is vouchsafed as to the terms and conditions of incorporation. The bald statement is, that "The Association is incorporated under the State laws of Illinois," that "the fees are paid and the Certificate in the hands of the Secretary." Not a word is said as to its probable effect in the other States of the Union, or

here in Canada, but it embraces the important announcement that the incorporators are the "Life members residents of the United States." The life members resident in Canada are quietly ignored. Before the final adoption of this report, one of your representatives at the Albany meeting asked if "Incorporation as now effected did not localize the jurisdiction of the Association and make it an Illinois Institution," and was answered that "the Association was now local, but its influence would be National." When he put the question in another form, he was told "It was necessary to incorporate under a state law, but the organization would be National in its character."

Your Committee is not in a position to express an opinion on the future "influence" of the Association, or to closely scrutinize its character; nor is it within its province to inquire what particular relationship it bears to the bee-keepers of the United States resident *outside* the limits of Illinois, but it has come to the conclusion that Canada has no rights under the new state of things, and that it was not intended she should. This is amply clear from the fact that her life members are not among the incorporators, and that the widest character and influence claimed for it, by the promoters, are "National" and not international.

Your Committee considers the changed nature of the Association is no mere innovation, but a complete revolution in the ground work and nature of the Institution, as it was heretofore constituted. Before, it was broad and International, now, it is local, with but a declared National influence, and your Committee look upon this change of organization as a gross violation of an existing compact deliberately carried into effect in the face of the vigorous protests of your representatives.

Your Committee are unanimously of opinion that the only course open to the bee-keepers of Canada, consistent with independence, self-respect and National dignity, is to retire from a position which has become, through no fault of theirs, anomalous if not humiliating, and therefore recommend that the Ontario Bee-Keepers Association do not continue in affiliation with the so called North American Bee-Keepers Association.

Your Committee have no hesitation in expressing the belief that the bee-keepers of Canada regret the circumstance that compells the severance of ties which have pleasantly existed for more than a score of years, and in their name we tender to the great body of American Bee-Keepers, which it believes are not responsible, the assurance of our continued fraternal good will,



our high consideration and cordial regards, and of our readiness at all times to co-operate with them in any enterprise calculated to further the interests of the industry in which we are alike engaged. All of which is respectfully submitted.  
Signed:

R. MCKNIGHT,  
WM. F. CLARKE,  
S. CORNEILL, } Committee.  
ALLEN PRINGLE }

### Comb or Extracted Honey, Which?

J. B. HALL.

**A**T the request of our president my name appears on the programme of this meeting to give a short paper on "Comb or extracted honey, which?" I suppose I am to give my opinion of which should be produced, if so, that will largely depend on the market the apiarist has to dispose of the crop, the experience he has, his ability and judgment as an apiarist, also in regard to neatness and cleanliness.

To produce honey you must have the following; a good pasture to supply the nectar; bees to gather the same, and some one of the many modern hives for the home of the bees, convenient of manipulation to the apiarist. He must have experience, be neat in all his work and cleanly and closely attentive to the wants of his little friends, and if he has a city market by all means produce comb honey. As a number one article in clean sections will always sell at paying prices. If you lack any of the above necessary qualifications by no means try to produce comb honey but give your attention to the production of the extracted article. I would say whoever would produce No. 1. comb honey, should use a hive with a large top surface and all spaces not more than three sixteenth of an inch. He need not examine the supers every few days and pick out any sections that are finished, but so arrange things to take off not less than full supers, and then he will have work enough if he has an apiary of two hundred colonies.

If the market demands and the apiarist wishes to produce extracted honey, by all means use a two or three story hive. Keep the queen from the combs you use for extracting and allow the honey to be capped before it is extracted, otherwise you cannot produce a choice article.

J. B. HALL,  
Woodstock,  
Ont.

Mr. Hall was asked in what proportion could he get comb honey extracted. He replied he

could get 80 pounds comb to 100 pounds extracted. Mr. Pringle said he did not get 80 pounds comb to 100 extracted. He thought bees are not infallible to capping honey as when honey is being gathered rapidly it will sometimes be capped up before it is ripe. He thought it would be difficult to tell honey that was extracted the day it was gathered, and ripened artificially, from honey that had been capped by the bees. Mr. Jones thought that better honey could be got from thin combs than from thick ones.

The Mayor of London, favored the meeting with his presence. He addressed the members for a short time, and cordially welcomed the bee-keepers to London, and hoped they were being well treated. A vote of thanks was tendered the Mayor and the corporation for allowing the association the use of the City Hall to hold the meeting in.

### Chance to Learn Bee-Keeping.

**S**HOULD this meet the eye of a smart, pushing young man or lad who is not afraid of work, and who would like to spend a year or two in farming and learning bee-keeping, and then get started in the business, let him address for further particulars—ALLEN PRINGLE, Selby P. O. Lennox Co., Ont

### To Our Subscribers.

**W**E have been unavoidably delayed in this issue of the BEE JOURNAL by our desire to give a full report of the meeting of the Ontario Bee Keepers Association. The work of getting the copy of the various papers read would have been obviated had we sent a stenographer to the meeting as is our intention in the future. We are greatly indebted to Mr. W. Couse for the aid he has given us in this matter.

Trusting this delay will be overlooked and with a promise that henceforth the JOURNAL will be on time.

We are faithfully yours,  
THE PUBLISHERS.

:: TRY AN AD. ::

IN THE BEE JOURNAL.