

# ...The Canadian Bee Journal

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NEW SERIES  
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BRANTFORD, ONT., JANUARY, 1902.

WHOLE No  
443.

## STAND WITH NEW WILL.

As the New Year's morn,  
The old, bad year is done,  
And the wide world is all agleam  
In the wide morning sun;  
Fainting hearts take heart because  
A new year is begun.

There is no soul so desperate and for-  
lorn  
That dreams again his dream,  
His new born,  
And girded up to do  
That he left undone;  
For all old things are new  
In the New Year's sun.

And the saddest heart  
Will deck itself in green,  
That shall be, this year,  
That last year should have been,  
For ones who had to part  
Will meet again in joy,  
And aged folks shall seem again  
A girl and happy boy

You, sad soul, that failed,  
That last sad year;  
I thank you that another year is yours;  
Without your old despair,  
I go with new will  
In the future still.

—R. L. G. in Success:

## Candying of Honey.

Inform your customers that the  
candying of honey in cold weather  
does not impair its properties. By  
candying it is preferred in this state. It  
can be made liquid again if desired,  
by heating the jar in a vessel of hot



The twenty-second annual meet-  
ing of the Ontario Bee-Keepers' As-  
sociation was held in the Council  
Chambers of the City Hall in the  
City of Woodstock, Ont., on Decem-  
ber 4th, 5th and 6th, 1901.

The President, Mr. John Newton,  
in the chair, called the meeting to  
order at two o'clock p. m.

At the request of the President,  
Mr. W. J. Craig, Editor of the Cana-  
dian Bee Journal, invoked the divine  
blessing on the meeting.

The Secretary, Mr. William Couse,  
read the minutes of the twenty-first  
annual meeting held at Niagara Falls  
and said: Before the minutes are  
passed I would like to draw the at-  
tention of the Association to the fact  
that there is a minute away back in  
1882 or 1883 that is not in the min-  
ute book. Something took place a  
year ago which led me to look up  
this matter a little thoroughly and I  
found that at the time of the meeting  
of the North American and the On-  
tario Bee-Keepers' Associations in  
Toronto some years ago that some of  
the minutes were not entered. From

a press report of that meeting I find that Mr. McKnight was spoken of as President. That is all I can find out of the officers for that year. If we could find out who the officers for that year were an insertion should be made of them in the minute book.

Mr. Darling moved, seconded by Mr. Gemmell, that the minutes as read be confirmed.—Carried.

Mr. Gemmell moved, seconded by Mr. Darling that a committee consisting of Messrs. Hall, Harrison, McEvoy, Emigh and Couse be appointed to examine the press report referred to and endorse and insert such portions of it as they think proper.—Carried.

#### THE PRESIDENT'S REPORT.

Ladies and gentlemen, of the Ontario Bee-Keepers' Association, it is with pleasure that we meet again in convention. Another year has gone and we are here to talk over the past and to make and lay plans for our future.

The first year of the new century has been very profitable to most bee-keepers, not only by the good flow of honey, but by the good prices which have been obtained for our product. I believe that we have as good prices as we had ten or twelve years ago. Surely this is encouraging. The quality as far as I have been able to judge has been extra good. Then as to our prospects for next season, bees in most parts have gone into winter's quarters with well-ripened stores, a point which tends a great deal towards successful wintering; the roadsides are matted with white clover, judging from these conditions we may look for a big crop in 1902. I doubt not, the most, if not all of you, have come here with the hope and expectation that this would be one of the most enjoyable and profitable meetings ever held by our Association. To make this wish a

veritable reality, can but be accomplished by each one taking part in the discussions and so contribute their portion of information for the general good.

It was with deep regret that we learned of the sudden death of our ex-president, Dr. Thom, who held the position of president in the year 1884 and was much esteemed by all members of the Association; these calls are but warnings to each of us that some day we too shall be called hence to our reward.

It will be remembered that at our last annual meeting a motion was passed to the effect that the Association deem it advisable to make an exhibit at the Pan-American Exposition. The matter was brought before the Ontario Government, and they decided to help us. At our executive meeting in May it was my pleasure to be appointed to go to Buffalo and install the exhibit. We made a general call to bee-keepers, of the Association, to help us. We succeeded in getting a good supply of extracted honey, but not a great deal of comb.

However, the extracted and comb were of a very fine quality. Our display was not large but was greatly admired by all visitors. I might note a few remarks gathered from passers-by and entered in my register book.

"Canadian honey." "What part of Ontario." "Ontario is all right. Magnificent exhibit."

"Very artistic exhibit and very clear honey."

"Grand honey and a beautiful exhibit. Am glad I came upstairs to see it."

"O, look at the purified honey. Isn't it fine."

"It's very prettily shown up, isn't it. O, isn't it fine. The Canadian may be slow but they know how to

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put up a honey exhibit."

There were only 21 exhibitors in all. We were awarded the gold medal for the collective exhibit of honey, etc., and 33 diplomas of honorable mention for the individual exhibitors. I have to thank the members who so willingly aided us in making Canadian honey famous at the Pan-American. While at Buffalo I had the pleasure of attending two of the sessions of the National Bee-keepers' Association, who so kindly extended an invitation to our Society to meet with them. Was pleased to see so many Canadian bee-keepers present, every one reported a profitable convention.

During this year Canadian honey has also been represented at Glasgow Scotland, being taken from the exhibit which was at Paris in 1901, but I have been unable to find out what awards were given. One of the questions at our last meeting was would it pay us to exhibit at Buffalo showing we had a duty of 1 $\frac{3}{4}$ ¢. per pound to pay to gain a market in the United States. I feel safe in answering it now, that I believe it has paid the Association, first, by showing to the world that we can procure a very high quality of honey in Canada, in the second to none, and that we Canadian bee-keepers take a pride in our pursuit to put our honey taste on the market. I believe if we had a market in the States even paying the duty we shall gain it, because American people seem to prize that Canadian laws are much better than their own. Our pure honey bill is all right and let each member of our Society try to enforce it by doing so we shall make a market and a market for our honey. It will be laid before you for your consideration the advisability of making stronger the bill which we now have in regard to the spray-

ing of fruit trees while in bloom. We all know that it is a serious question in some parts of the country to bee-keepers. Let us all put our shoulders to the wheel and try what can be done.

The Inspector of Apiaries has, as far as I have been able to learn, been attending to the duties of his department in a manner which I trust will be satisfactory to all. His report will, however, be submitted for your consideration. My attendance at the exhibit at Buffalo and meeting with the many bee-keepers of Ontario who do not belong to any bee-keepers' association at all, have brought me to think that they do not realize the advantages given to members of the Ontario Bee-keepers' Association. I would strongly advise that a small pamphlet be published setting forth the workings of our Society and its advantages to bee-keepers, and have a copy placed in the hands of every bee-keeper of this land.

The matter of forming a guild or exchange will be brought to your notice by Mr. Andrew Patullo, M.P. P. for North Oxford, who has so kindly consented to take that subject for the base of a few remarks to us.

In conclusion, I thank you for the confidence placed in me a year ago in placing me in the position I now occupy. I trust you will all assist me in making these meetings pleasant and profitable to all. While I occupy the present position, for in union alone there is strength.

Mr. J. D. Evans opened the discussion on the address, spoke of the faithfulness with which President Newton attended to every detail in connection with the Association's exhibit at the Pan-American. There was the trouble of liquifying the honey, of putting it up and taking it down, and disposing of it at the close of the exhibition, besides the many

unforseen things to be looked after in the meantime. The President had worked faithfully and well and the Association owes him a debt of gratitude.

Speaking of the law regulating the spraying of fruit trees Mr. Evans said that it should be made as stringent as possible, at the same time he considered that if people were educated as to the advantage of bees to their fruit crop there would be little trouble regarding this matter.

Mr. Evans moved, and Mr. Gemmell seconded, that a hearty vote of thanks be tendered to the President for his able address and for his services during the year. (Applause.)—Carried.

Mr. W. F. Clarke: I am very pleased to hear of the success of the Canadian exhibitors at the Pan-American and I think if our people will only be just to themselves they will always be able to hold their own at home and every other place.

The President: I thank you all for the kind words which you have spoken. I have only done what I thought I ought to do in the position in which you placed me.

One thing I overlooked in my address was that the thanks of this Association are due to Mr. Miller of London, for supplying part of the glassware which helped to make the exhibit which we had at Buffalo very attractive.

Mr. Couse moved, seconded by Mr. Brown, that a vote of thanks be tendered to Mr. Miller for his kindness.—Carried with applause.

The President tendered the vote of thanks to Mr. Miller.

Mr. Miller: Mr. President, and fellow bee-keepers, I thank you for this extension of kindly feeling. I was only too pleased to supply you with whatever I had for the occasion.

The President called upon Prof.

Harrison to address the Convention. (Applause).

#### ADDRESS BY PROF. HARRISON

Mr. Chairman and Gentlemen: The work that has been undertaken this year upon foul brood has been rather limited. Last year a large number of the results of experiments were given to this association, but no such extensive work has been done this year. The only thing that has been attempted was to try and find out if possible some means of destroying foul brood spores and foul brood germs as they exist in the honey comb and as they exist in the dead larvae of the bees. And I am pleased to be able to tell you that one remedy which has been tried on the combs has met with good success.

The method which has been used is as follows—and I may say that we have very good facilities in the neighborhood of Guelph for obtaining foul brood colonies—we have taken a large number of these and have infected them with vapors of formalin. This was done somewhat in the following manner: Sections of combs were taken out and placed in a box of the same size as an ordinary hive. The exit at the bottom was plugged with the exception of a small hole and a small opening about half an inch in diameter was left at the bottom. To the lower hole was affixed a formalin apparatus consists of a small alcohol lamp at the bottom with a reservoir at the top which contains formalin. Formalin I may say is the trade name given to a ten per cent. solution of formic aldehyde gas in water. A small portion of this is put in the reservoir over an alcohol heater and then the top is screwed down. The top connection is with a small hose pipe, and is placed in the lower hole of the comb. Directly after the apparatus is

attached the formalin through the wax in it was from the dead also capped condition foul brood spread smell of honey a hole was: tely aft us was opening here fi  
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tached the alcohol lamp is lit and the formalin is vaporized and spreads throughout the hive. This means of disinfecting the hives was used; and the wax of the comb that was placed in it was several years old, judging from the looks of it, and contained dead larvæ, foul brood, and also a certain number of capped cells, so that probably all the conditions were present which would be met with in a bad case of foul brood. After the gas had spread through the hive and the smell of the gas, could be noticed issuing at the hole at the top, this top hole was closed and almost immediately afterwards the formalin apparatus was disconnected and that lower opening plugged up, and it was kept there from one to four hours at the end of that time the hive or box was opened and the combs taken out and a careful examination made not only of the capped cells but also of the foul brood cells and also certain marked cells which contained honey and also spores of the foul brood bacillus. In not a single instance did foul brood germs grow from these combs after they were treated. And since then I have performed the experiment three separate times with three other distinct combs and with the same success, and in each case the germs were killed, whether they were in dead larvæ, whether they were in honey, or whether they were in capped cells.

I know, it is well known that formalin under slight pressure has a great deal of penetrating power and that probably accounts for the disinfecting action.

I think that this method would be practiceable in an ordinary way, especially so when one considers the small cost of the apparatus which could be easily manufactured;

or any of the apparatus which are at present manufactured for the disinfection of rooms in hospitals are quite applicable for this disinfection of combs.

One word in connection with the remarks I made at your last meeting. At that time I told you that we had in the laboratory at Guelph a large number of small pieces of glass which had been spread some years ago with foul brood spores, in order to find out how long they would live when deprived of food and all conditions essential for growth and exposed to dryness. They are in semi-darkness, that is to say in a drawer which is occasionally opened and shut; and I usually take one of these glass plates out at six months intervals to see if they are living or dead. They have been there nearly four years. I looked at them a few days before coming to this meeting and found they were still alive. So that in dealing with these foul brood spores we have a low form of plant life which is extremely resistant to dessication.

These then, gentlemen, are the experiments which have been performed this year and I trust that in your practice you will seize some opportunity for trying this formalin fumigation for foul brood. (Applause.)

#### INSPECTOR OF APIARIES REPORT.

During 1901 I visited bee yards in the Counties of Bruce, Grey, Perth, Oxford, Waterloo, Wellington, Wentworth, Halton, Peel, York, Ontario and Simcoe.

I inspected seventy-seven apiaries and found foul brood in twenty-nine of them and dead brood of other kinds in many others.

Some bee-keepers secured the

combs from others who had lost many colonies of bees and not knowing that these combs were diseased brought them home and put them into use and spread the disease in their own apiaries.

When foul brood dries down it glues itself fast to the lower side and bottom of the cells and there it will remain just as long as the comb lasts and in old dark combs the stain mark left in the cells from the disease is not noticed by those who have never had any experience with foul brood.

It is only when the disease becomes wide spread that the bee-keepers wake up to the fact that their colonies have foul brood.

These mistakes which have so often ended in big losses from bringing diseased combs into apiaries should be a warning to bee-keepers not to deal much in old combs.

No bee-keeper would bring a diseased comb into his apiary if he knew that it contained foul brood and the men who dispose of such combs don't know that they are diseased when they deal them off.

I received many letters from bee-keepers asking me to visit their localities and while inspecting there to stop with them. I was much pleased with the generous treatment which I received from every person and in turn I felt that I was in duty bound to help the people all I could in every possible way besides getting their apiaries cured of foul brood and I did so.

I am also pleased to say that nearly all or the largest and best paying apiaries in the Province of Ontario are among the very many that I got perfectly cured of the disease years ago.

WM. McEVoy.

Woodburn, Dec. 3, 1901.

## THE BUFFALO CONVENTION

OF THE NATIONAL BEE-  
KEEPERS' ASSOCIATION U. S.

Frank Benton, of District of Columbia—Not necessarily; the spores might stay there and retain sufficient life to develop. But there is no bee going to take a spore from a dry hive and take it where it will grow.

Pres. Root—The spores are in an inactive state; the bacilli are in an active state.

Mr. Hershiser—I have frequently been working around a hive, spilled a good deal of honey and it has run down the sides of the hive. Suppose these spores were present and the bees would carry it into the cells where there was a larva. Isn't that a case where the disease could develop?

Mr. McEvoy—Certainly.

Mr. Hershiser—Sometimes we are working with a hive where we do not give them the opportunity to secure the honey. Suppose they take the honey that is running down the sides of a hive, and take it into a cell where there is a larva, wouldn't that communicate the disease?

Mr. McEvoy—Ninety-nine per cent out of a hundred are pure.

Pres. Root—As I understand Mr. McEvoy, where he speaks of a small portion of the honey being diseased his recommendation is that all the combs or wax be burnt. In order to be sure, he considers it safe to burn every comb.

Mr. McEvoy—Yes, sir, every comb.

Dr. Mason—I have had a good deal of experience with foul brood and I do not exactly agree with Mr. McEvoy because he is the best and

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ority that we have on earth. I do not consider it advisable, in my experience, to take foul-broody bees, combs etc., out of a hive and use that hive without disinfecting. I would not do it. You may lift a frame out of there with the greatest of care and crush a bee with foul-broody honey in it and leave it there, and when it is so easily disinfected, I don't see why it should not be done; but if a hive has foul-broody honey on it, or in it anywhere, it is a foul-broody hive and needs disinfecting, and even Mr. McEvoy will admit that.

Dr. Miller—I want to ask Mr. McEvoy if he ever tried using a hive again that had had foul-broody bees in it?

Mr. McEvoy—Oh, thousands of them.

Dr. Miller—I would like to know definitely. I want to know something definite in numbers. Did you ever have half a dozen hives used in that way, or how many? Give us something definite about it.

Mr. McEvoy—I don't know, I suppose I could put it safely at 5,000.

Dr. Miller—Of that 5,000, how many of them ever succeeded in giving the disease?

Mr. McEvoy—Not one, that I ever saw. Not a single case that I ever saw.

Dr. Miller—Now, if in 5,000 cases that you have tried there has not been a single failure, I am willing to take what risk there is.

Pres. Root—After I had learned of Mr. McEvoy's experience, in which he had tested something like three or four thousand hives at that time, I concluded that we would try to cure the disease without boiling the hives, and ever since that time we have had that we could cure it just the same without boiling the hive. Some time ago when we had the disease in

our apiary, we boiled all our hives, but we left about ten of them and thought we would see what would result. I think that there were four or five out of the ten that we left that had the disease, but I have thought since that that experiment did not amount to anything, in view of what Mr. McEvoy says that he has tried it in 5,000 cases.

Mr. Hershiser I would like to ask how many of those apiaries have been treated more than once, and how many times those apiaries have been treated that have had foul brood?

Mr. McEvoy—That is a close question and it is all right. You know it is one thing to handle a disease and it is quite another thing to handle the men. Some men would make a perfect cure, others, again, you would have to go to several times, and it is just how they do the work. Some of them will blunder once in a while, but it isn't the hive; they don't do their work; they often put it like this, "Well, how long will I boil the hive?" Now, that depends upon how long you intend to boil the bees; surely, you are not going to do one without the other. Are you going to take these bees that have walked all over the putrid eggs, with their dirty little feet, without boiling them? If you are going to boil the hive half an hour, I think you ought to boil the bees an hour! And I don't know a place in Ontario where they boil now.

Dr. Mason—Foul-broody hives need disinfecting just as surely as do foul-broody bees, and they can as surely, and more easily, be disinfected without boiling than can bees.

Pres. Root - Perhaps it ought to be stated in this connection that Thomas William Cowan, and quite a number of scientists across the water, feel that it is very necessary to disinfect the hives, but, as I have stated, we haven't disinfected our hives since,

and we haven't had any trouble.

Dr. Mason—You haven't had foul-broody hives, then.

Dr. Miller—It seemed to me that it was a foolhardy piece of business for Mr. McEvoy to insist that there was no necessity for disinfecting, for it seemed to me that there must be plenty of spores, but if you come to think about it, what is going to take those spores where they can do any harm? And the fact remains that if he has had so many cases, and knows that no evil results have come from them, we ought to be able to go on and do what he has done.

W. H. Heim, of Pennsylvania—I should like to know whether those are the only two remedies for the disease—by burning the combs or boiling?

Mr. McEvoy—Do you mean that you think that they can be disinfecting?

Mr. Heim—Yes.

Mr. McEvoy You can use the disinfectant till those combs will fairly smoke, and you try them over again and it will break out.

Pres. Root—I talked with Mr. Gemmill and one of the other inspectors, and asked if his experience coincided with Mr. McEvoy's, and he said it did.

A member—Do I understand Mr. McEvoy that the combs should be burned up, or made into wax?

Mr. McEvoy—I think they ought to be all turned into wax, and if made into comb foundation it is all right, too.

#### A Conversation With Doolittle.

##### STARTING IN BEE-KEEPING.

"Good morning, Mr. Doolittle. I am about to make a start in the bee business. I think of buying 50 colonies of Mr. Smith, and I came over to see what I could find out in the

matter which would be helpful to me."

"What do you have to pay Mr. Smith for bees?"

"He said he would let me have 50 colonies this fall, hives and all, for \$200, or he would let me have them next May for \$250, as there is some risk to run in wintering bees. Which would you prefer to do—buy them this fall or next May?"

"How many colonies has Mr. Smith?"

"He has about 250."

"If Mr. Smith will give you your choice out of the 250 colonies next spring, I should prefer to wait until next May, and pay the \$50 extra. Otherwise I would take them now."

"Why?"

"Because, in the former case Mr. Smith practically insures the bees against all loss in wintering; while if you do not have your pick he agrees to give you only so many and you might not have as good an average if you took them as they come as you would have did you take all good colonies this fall. But why do you wish to buy so many colonies?"

"So as to have a good start, and sufficient number to pay me for 'dabbling' in bees at all."

"I hardly think this the part of wisdom. It seems to me that 50 colonies of bees would be about twelve times as many as a beginner should buy."

"Why?"

"Have you had any experience with bees?"

"No—nothing more than that I have been at Mr. Smith's two or three times, and have read about the paper there was in bees, out of a paper I picked up."

"As I thought. You are a beginner, and the beginner should guard against going recklessly into

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keeping by putting a lot of money into a business he knows nothing of. It is this getting crazy over a business which looks to be a good thing, but with which we are not acquainted and putting a lot of our hard earned money in it, expecting to make a fortune, which ruins so many. To be successful in anything, a man must 'grow up' into it, as it were, by years of patient toil and study, till he becomes master of the business, when, in 99 cases out of 100, he will succeed."

"When and how did you begin?"

"During the winter of 1868 I became interested in bees by reading a book on the subject, which I found in the house; and, as father had kept bees several years before, I knew something about them, but not after the improved fashion, as father kept his bees in box hives. Next I subscribed for the American Bee Journal and read Quinby's and Langstroth's books, and in March bought two colonies of bees, and the hives which I needed for two years, at a cost of \$10 for the whole."

"How did you succeed?"

"There being a poor season in 1869 I had but one swarm from the two colonies purchased, and had to feed the bees worth of sugar to get the three colonies through the winter of 1869."

"Whew! If I had such success as that with my 50 I should wish I had never gone into the business, as that would add \$125 to the first cost of commencing. But did you do no better the next year?"

"During 1870 I received enough from the bees to buy all the fixtures needed for 1871, and a little to help pay other expenses on the farm, so bee-keeping was my main business at that time; and the first \$35 was all the money I had ever paid out for the bees but what father brought me in; for I resolved that this first \$35, I would lay out

no more money on them than they brought in, believing that if I could not make 3 colonies pay, I could not make 300. But had I had 75 colonies at that time, with little or no experience, the loss of throwing the business up would have been many times greater than \$35."

"But it seems you did not throw it up."

"No. During 1871 I got enough from the bees to a little more than pay expenses, besides a lot of experience, which was of more value to me during the years to come than many dollars would have been without the experience, for in the fall of 1872 I found that I had an average yield of 80 pounds of comb honey from each colony in the spring, which was sold so as to give me \$559, free of all expense incurred by the bees."

"Pretty good pay, was it not?"

"Well, yes. But you will see that this was the first I had really gotten, so it must be spread out so as to cover a period of four years. At this time I did not have as many bees as you propose buying to start with. My opinion is that, had I bought 50 colonies to start with, I should have turned from the business with disgust, with a loss of several hundred dollars, and that the bee-world would have been spared the scribbling done over Doolittle's name for the past 30 years."

"But you succeeded?"

"Yes. But before we go further I wish to tell you about something which pleased me during 1872. I bought an extractor, and, being determined to give the bees the care they needed, and knowing that the time the bees needed the most attention came in haying time, I hired a man to take my place in the hay-field. It so happened that he commenced work on the day basswood commenced to bloom. Previously I

had hived a prime swarm, and concluded to devote them to extracted honey. The man worked 16 days at \$1.75 a day, and I extracted honey enough from that swarm during those 16 days to pay the man for his work. I tell you this to show that, when properly managed, in a fairly good season, one swarm of bees is equivalent to a man at work in the hay-field, and so it will not pay to neglect a whole apiary to go into the field to work, as many would-be bee-keepers so generally do, and afterwards growl about the bees not paying them. You can hire a man to take your place in the hay or harvest field; but if you expect to be master of the bee business, so as to make it pay, you can not hire a man to take your place in the apiary during the honey season, as it takes much more skill to be a successful honey-producer than it does to pitch hay successfully. When the bees do not require any special attention, then they can be left to do other work as we have time; but if the bee-keeper would be successful, he can not afford to neglect them for a single day, when that day will put them in condition to bring him dollars in the near future."

"I think I begin to see that much which I have thought about 'bees working for nothing and boarding themselves' has been merely an idle dream. But what of the years after 1872?"

"Since then my average income from the bees has not been far from \$1200 a year, above the expense incurred by them. In other words, the bees have paid me a salary of not far from \$1200 a year, on an average, for the past 28 years, and that with only about 75 colonies on an average each year. I have not kept a larger number, on account of other things which demand my attention more or less of the time. Had I bought 50 or more

colonies to start with, the expense in starting would have been from \$350 to \$500, which, in all probability, I should have lost in the business, for I should not have had a knowledge equal to doing so large a business on the start."

"I am glad to have had this talk with you; and now on leaving tell me in brief just what you would advise in the matter of my keeping bees."

"My advice to you, and all others thinking of bee-keeping as a business, would be, purchase from one to four colonies of bees; post yourself by reading and experimenting with them, as you can find time from the business you are already in, and thus find out for yourself which is the better for a livelihood—the business you are already in, or keeping bees. If successful after a series of years, you can give up your other business if you wish to; and if bees are a failure in your hands, then you can but little out for having tried your hand at it."

[Although Mr. Doolittle has cautioned beginners against expecting too much from bees, yet in spite of that caution some may imagine they can do as well as he. When he began, prices on honey were much higher than now, and the result from a dollars-and-cents point of view, would be correspondingly higher. Then Mr. Doolittle is also a queen-breeder; and had he not been such it would have been difficult for him with only 75 colonies, averaged to secure such good results. I do not belittle what our friend has done, not in least; but one who begins should understand that the possibilities from so few bees are not great.—ED.] Gleanings.

A delicious flavor is imparted to tea or coffee if sweetened with honey instead of sugar.—Try it.

### How I Made a Wax Press.

DEAR SIR,

In the November Journal I endeavored to describe how I melted old combs. I will now try to give a description of my press. I made a frame like a small table, 18x18x15 inches high, out of  $2\frac{1}{2} \times 2\frac{1}{2}$  inch pine, with cross bars morticed into each leg about 4 inches from the bottom, and two bars  $2\frac{1}{2} \times 2\frac{1}{2} \times 20$  inches long are morticed and fitted on top of the legs on opposite sides, projecting over 1 inch on each end. To this I nailed the top 20x20x1 inch of tongued and grooved lumber; on the under side of this I nailed a piece of hardwood  $3 \times 4 \times 23$  inches long across the centre, leaving  $1\frac{1}{2}$  inch projecting from each side; then to the frame a piece of hardwood  $3 \times 4 \times 23$  inches long for the top box of press to hold the screw, which is a carpenter's bench screw, and it requires to be nicely and tightly adjusted in the centre with a hole  $\frac{3}{8}$  inch at each end to hold side rods and holes in the centre piece on under side of table to correspond. I procured from a blacksmith two side rods  $\frac{1}{2}$  in. round iron about 16 in. long with a shoulder 4 in. from the end and a screw nut on the end to hold the  $3 \times 4$  top bar, with an eye on the lower end, and another short piece  $1\frac{1}{2}$  in. long, also with an eye and screw attached to the long rods, these also from hinges, the short pieces to screw the bar on lower side of the table. Making them this way they can be pushed down out of the way when not in use. This makes a strong press. I used a tin pan 18x18 in. and 2 in. deep, with a spout or tunnel about 3 inches long turning down a little near to the corner. I have two racks made of strips  $\frac{1}{2} \times \frac{3}{8}$  in. x 17 in. long laid by side, making a square 17 in., with two strips one at each end  $1 \times \frac{1}{2}$  in. wide on each end, with a space of 1 inch between each, and they are

complete. I have a box  $15 \times 15 \times 3\frac{1}{2}$  in. deep made of  $\frac{3}{8}$  in. board, without top or bottom; I next have a board  $17\frac{1}{2} \times 17\frac{1}{2} \times 1$  in., and then another piece  $17\frac{1}{2} \times 12 \times 1$  in. screwed on to the other piece the contrary way of the grain, to make it strong; a block of wood on top of that and all is complete. When my combs are melted and all ready for work, I turn the side rods down and lay on the table the tin pan with one rack inside of it; next the box, take a piece of canvas 30 in. square (a piece of bran sack will do very well) and lay corner ways over the box, push down in the centre and pour into it out of the steamer the refuse, or wax altogether, which ever suits you best, and fold one corner over the other, and secure with a 2 in. nail, pour on a dipper or two of hot water, take off the box, and lay on top the other rack, the double board top on that, and the block, turn up the side pieces and screw down. It requires a dish pan or some vessel to catch the wax. When the board is taken off if any little wax is on the outside of cloth, scrape off, take out the nail and shake out the refuse, put on the box and cloth again and you are ready for another lot. It works much better to have a movable button on the end of the screw. I took mine to a machinist and he put one on for 35 cts. The iron work altogether cost me one dollar and five cents. The woodwork I did myself.

J. T. C.

Muskoka, Ont.

It is yet early to say much about the new seasons prospects; clovers have had a good start and the winter so far has been favorable and keen observers tell us that the condition of the basswood in August last would indicate a profusion of bloom. Leading bee-keepers are certainly on the alert for early supplies. [Ed.]

THE  
CANADIAN BEE JOURNAL

Devoted to the Interests of Bee-Keepers,  
Published Monthly by

GOOLD, SHAPLEY & MUIR CO

(LIMITED)

**BRANTFORD - CANADA**

Editor, W. J. Craig.

JANUARY, 1902.

**EDITORIAL NOTES.**

We wish all our readers a very happy and prosperous New Year.

Reports says that bees wintering in cellars seem to be coming through in excellent condition. Very few dead bees on the floors. Those outside have not had a fly since first November.

The Bee Case of Brock v. Patterson at Linden, Ont., has been twice postponed and no date has been fixed for its hearing. Both sides intend putting up a pretty stiff fight when it is called.

The meetings of the Ontario Association in Woodstock, Dec. 3-6, were of a very satisfactory character. The attendance was fair and the program well carried out. The addresses of Professors Harrison, of the Ontario Agricultural College, Guelph, and Shutt, of the Experimental Farm Ottawa, were especially interesting. The Association and bee-keepers of Ontario are much indebted to these gentlemen for the interest they have taken in the bee-keeping industry and for the valuable experiments and

discoveries they have made. Professor Harrison's finding that the simple fumigation with formalin gas will destroy the germs of foul brood in all stages and conditions, is extremely valuable, and will mean a great deal to bee-keepers, apart from the curing of diseased colonies, in the disinfection of combs and honey. We give Professor Harrison's address in this issue.

Referring to the communication of "One of the Boys who was there" on page 164 would say that we would like very much to see a copy of our critical editor friend's production so we could compare it with the "New York Tribune" or the "Detroit Free Press" or the "Buffalo Express" or even our "Toronto Globe". No doubt but he has found, as Mr. And. Patullo M.P.P., for North Oxford, and editor of the "Woodstock Review", said at the Ontario Bee-Keepers' meeting that editors are very often expected to "make bricks without straw". Re capital would say that the present proprietors of the C. B. J. have probably as high a credit and financial standing as any in the same line in the world, but that standing can only be attained and maintained by business principle and methods, and these are to invest money only when a return can be seen. The expense in connection with publishing the C. B. J. must be kept within moderate limits, it should be our aim to get good material—quality rather than quantity. Much of what is published in journals through pen and picture

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whilst interesting and attractive is not profitable from a practical standpoint.

If we have not had the writings of many eminent Canadian bee-keepers we have had what we consider even better—their sayings at a time when sharpened and brightened by hours and days of association in convention.

Of course we are anxious to have more articles and believe that home production should be encouraged and in the end would benefit the writers and apiculture generally. The idea held by many that an imported article must be better than Canadian production does not hold good in money, and all in all should not hold good in journalism.

Evidently all the dishonest commission men are not in New York and Chicago.

A number of our Ontario bee-keepers have been taken in by a fellow in London Ont., who if he is directly crooked looks very much the square. He was pretty fully discussed at the closing session of the Woodstock meeting, and owing to his having used the Canadian Bee Journal, and it being mentioned in connection with him, we since took liberty of writing him personally as follows :

Brantford, Dec. 20, 1901

Samuel L. Lewis, Esq.,

London, Ont.

Sir :

Your name was being handed round pretty freely at the meeting of the Ontario Bee-Keepers in Wood-

stock a couple of weeks ago. There will be a lot of stuff to publish which we do not feel justified in suppressing, without you can give us some guarantee of your intention to make things right with those people who have intrusted you with their honey. We are sorry indeed that you have used the Canadian Bee Journal. Such things always go against a publication. Of course if you are able to defend your action, we will go ahead and publish what passed.

Yours truly,

W. J. CRAIG

To which we received the following reply :

SAMUEL L. LEWIS & CO.  
Wholesale Dealers in  
Fruit, Fish and Produce

London, Can. Dec. 21, 1901

Gentlemen,

Yours of the 20th received. There is only one man who we got honey from who said he saw the ad. in the C.B.J. We have considerable money out and we will settle up by the end of next week. You say you are sorry we used the Journal, you are not half as sorry as we are because it did not pull better. I will be in Brantford some time next summer and will call and explain matters to you.

Respectfully yours,

S. L. LEWIS

On receipt of this we wrote Mr. R. H. Smith, of St. Thomas ; Mr. J. B. Hall, Woodstock, and some others who had dealings with Mr. Lewis and received the following replies :

St. Thomas, Dec. 14, 1901

W. J. Craig.

Brantford, Ont.

Dear Sir :

Yours of the 25th received. If Mr. Lewis settles as he promises by the time stated, that is not very long now, and Mr. J. B. Hall may be able

to tell if his promise is good. Mr. Hall would be a good one to give an account of his dealings with him. Mr. S. L. Lewis wrote me in October last before I knew he had an ad. in the C. B. J., asking price of honey which I quoted on October 16th, he wrote accepting 500 lbs. at price given, stating that cheque would be sent when honey was received. As I am a little afraid of commission men who are not rated I shipped the honey to the order of the bank in London thinking it would be no more trouble or expense for Mr. Lewis to pay to the bank than to send the cheque to me. In a few days I received notice that the honey was not accepted. Thinking I might have offended Mr. Lewis in some way I went to London to investigate being guided by the address, which, by the way, is well gotten up, with cable address. Office and storage 527 Richmond Street, and other particulars. This letter head deceived me not a little. I expected that the firm must be doing a large business by the appearance of their letter paper. Judge of my surprise when I found the office and storage consisted of a printer's office. The gentleman I saw there told me that Mr. S. L. Lewis only had his mail addressed there but that he had a cellar rented on the market and that I might find him at his boarding house to which he directed me. I fortunately found Mr. Lewis at home and on my asking him why he did not take the honey through the bank he told me he did not do business in that way. I told him the honey was lying at the station and I would hand it over to him for the price, but he would not take it under those conditions. After telling him how I had been deceived by his letter head and of the trouble and expense it had been to fill his order, he smiled and said he could

not help it. One satisfaction I had was that the honey was still under my control.

Yours very truly,

R. H. SMITH.

Woodstock, Jan. 2, 1902

Mr. J. W. Craig,

Brantford, Ontario.

Dear Sir :

Yours of Dec. 30, 1901, to hand. I mail you Lewis' order, and you may do as you think best with it, (but return to me). I may say that I drew on him and the bank could not get him. I sent a party to see him and the nearest he could get to Lewis was at the end of the telephone. I have received from Lewis \$6 which has cost me \$5 to get.

Respectfully yours,

J. B. HALL

Here is a copy of the letter referred to by Mr. Hall :

SAMUEL L. LEWIS & CO.  
Commission Merchants  
Wholesale Dealers in Fruit, Fish  
and Produce.  
Apples a Specialty

Office and Storage  
527 Richmond Street

CABLE ADDRESS  
LEWIS

London, Ont., Oct. 7, 1901

Mr. J. B. Hall,

Woodstock, Ont.

Dear Sir :

Your letter and honey received. We accept your offer of light honey at 9c. per pound, tins extra, shipped by freight and mail invoice check sent as soon as we receive honey. We will order more later. Tags mailed under another cover.

Respectfully yours,

S. L. LEWIS

We are extremely sorry that have been used by Mr. Lewis in business. Ours of course was the only publication in which advertised.



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# FOUL BROOD

## BACTERIA AND THEIR RELATION TO DISEASES

We speak of bacteria as causing diseases, then, again, as preventing diseases, and sometimes as curing diseases. These opposite and apparently irreconcilable properties in objects that can only be seen in a microscope, have caused the bacteria to be looked upon as mythical bodies by many intelligent persons who have not made them a special study. An explanation of the ways in which bacteria act I propose adopting a method frequently used by lawyers in court, i.e., of stating a case, and I present the case of the boy learning to smoke. If a boy takes five or six whiffs of smoke from a tobacco pipe, he will in three or four minutes turn pale and have to lie down. He will be a very sick boy for half-an-hour when he will begin to recover, and in an hour he will be nearly well again. The nicotine poison in the tobacco acts quickly, and only for a short time. If the boy had taken one whiff the first day, two the second, and three the third, he could have gone on for a month, and, without being sick, have made himself an educated smoker-likely enough out of his accomplishment. Men and women have educated themselves to take with impunity a dose of opium or morphine sufficient to kill a dozen persons, and men have been known to take, without any immediate ill effects, a quantity of arsenic sufficient to kill a score of men. They commenced by taking small quantities. We will now suppose that there

are bacteria which secrete nicotine poison as their weapon in the battle of life. The poisons secreted by the bacteria are very similar to the poisons formed in the leaves and flowers of plants, and in the bark of trees, to protect them from their enemies, so that the nicotine bacteria are not impossible bacteria.—they may exist. If the smoking boy and another boy not educated to smoke should be infected with these bacteria at the same time, no effects would be noticeable for several days, the period of incubation, say, ten days, when the bacteria would begin producing nicotine. The smoking boy would not be affected by it, while the other boy would be killed very quickly—probably in an hour. Now, if we had taken this boy before he died, taken him on the day he was infected, or the day after, and had given him a whiff of tobacco smoke, the next day two, and so on, until the bacteria commenced secreting nicotine, he might have been sick from the larger dose, but he would have recovered to find himself as accomplished a smoker as the other boy, the bacteria having completed his education. We would have saved the boy precisely in the same way as a person bitten by a rabid dog is saved in the Pasteur Institution, and the smoking boy's protection from the nicotine bacteria shows how immunity from smallpox, by vaccination, may be produced at will. It should be observed that it makes no difference



Also, to show that germicide remedies in the treatment of foul brood endeavor to make the surrounding conditions as unfavorable to the growth of bacteria as possible; and if this principle is kept in view the details in carrying it out will be easily understood as we proceed with the subject.

The condition must be exceedingly favorable to the growth of bacteria to enable them to destroy a colony of bees. The bees can protect their colony against bacteria to a greater extent than is generally supposed. No one has found foul brood in bees located in chimneys or garrets, or, in fact, in any home not purposely made for them. If we continue to favor the growth of bacteria in the hive so as to give the bacteria an advantage over the bees in the "struggle of life," and persist in cultivating the bacteria, and not the bees, we will, most assuredly, never succeed with disinfectants and germicides in getting rid of the disease caused by the favored bacteria.—A. W. Smyth, M. D., in the Irish Bee Journal.

## Communications

Markham, Dec. 24, 1901

Editor C. B. J.

In response to your request for an article for C. B. J., I feel at a loss as to what subject to take up that would be seasonable. Honey is not all marketed, winter preparations have been (or should have been) completed before this, the bees are settling quietly and need our attention but little for the next three months.

A few weeks ago the editor of one of our local papers asked me to bring

him sample copies of the different Bee Journals I was subscribing to. The first time I had an opportunity. I called on him with copies of the C. B. J. and the three or four American journals I am taking, he looked over them carefully and turning to me asked, (referring to the C. B. J.), "Is that the best you fellows can do?" Of course I explained to him that the C. B. J. had not the territory tributary to it that the American Bee Journals had, that some of the American Journals had a large amount of capital behind them, etc., etc., but I must confess that if I did explain things to the satisfaction of said "editor", I was not fully satisfied myself as to why our journal should be inferior (if it is) in comparison with journals from across the line, and the incident caused me to do considerable thinking. I would not for a moment cast any reflections upon the Editor of the C. B. J., I believe he is doing the very best he can under the circumstances, the fault is not there. Whose is it? Anyone having on file the C. B. Js. for the last two or three years will be surprised on looking them over to see how few of our practical apiarists have contributed to said journal. How is it! Have we no capable men in our ranks? I believe it is generally conceded by our American cousins, and others, that some of the "very best bee-keepers in the world are to be found in Ontario" and I think that anyone who has had the pleasure of mingling with the fraternity will concede that the majority of them are able to write up their views if they wish.

Again, I believe I am safe in saying that more of our Canadian apiarists contribute more to the American Journals than what do to the C. B. J. I am a strong advocate of the doctrine of supporting home industries and while I would not wish to see

less Canadian contributions to the American Journals, I would like to see more interest taken in the Canadian Journal.

Let us get a move on and help our editor to bring out a paper worthy of the industry we are so much interested in, by doing so we will take a great load from the editor's shoulders and naturally be helping one another.

A word in regard to "long tongued bees". After seeing so much this past season in certain journals, re, "red clover queens", "long-tongued bees", etc., it is refreshing to read that paper on the subject, contributed by Prof. Gillette and read at the recent meeting of the Colorado Bee-Keepers held at Denver, and printed in the American Bee Journal, December 12th issue. The Professor had bees sent from all parts of the Union and he says he "took pains to get bees from those advertising 'long tongued' bees for sale", in some cases asking that bees from the poorest as well as the best colonies in the apiary be sent. The results of his experiments are anything but satisfactory to the "long tongue" theory, of the great number of bees sent him whose tongues were measured, no appreciable differences in length were found; in his conclusions he states, "the extreme variation in the tongue length of the Italian bees was but .02 of an inch". "I shall have to conclude that so far as my study of the subject has gone, there has been no indication of any strain of the common honey bee worthy of the distinction 'long tongued' Italians." The Professor further states that while it may be possible to produce a strain of "long-tongued" bees, in his opinion it will only be by a long process of careful selection in breeding, "they will not spring into existence all at once."

Quite a graceful tribute was that

paid to the American Bee-Keepers at their Buffalo meeting by the janitor who had charge of the hall where the meeting was held. He said they were the cleanest lot of people he ever had to look after in all the years he had charge of the hall. I think if he had been at Woodstock he could have said the same thing (of course he had reference to tobacco spitting, etc.). I was also thinking that the proprietors of the hotels would think that the bee-keepers were poor customers as far as the bar trade was concerned.

ONE OF THE BOYS WHO WAS THERE.

Denbeigh, N. Dak. U.S.A.

December 16th, 1901

Dear Editor :

We left our home in Pearl City, Ill., U.S.A., Sept. 10th. for a winter's trip to N. Dakota. We are now located at this place for the winter. The fore part of December was very rough and it made me wish all the more to have my bees in the cellar. So I ordered them put in and they were just put in when the cold wave struck the States. They went in in fine shape.

My various journals are coming regularly to this place and I still have a knowledge of what is being done all over the States and Canada. One of the subjects much talked of in the journals, and that interests me very much, is cellar wintering. I consider cellar wintering a boon to apiculture. But it seems the plan of the method is not developed to such extent as it should be. Some succeed in one method indoors and some in another while some make failures or partial failures in any and do not understand what the trouble is. The beginners sometimes put bees in the cellar and feel no assurance of success, because some of the older bee-keepers do not follow this same plan

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It seems to me much more might be gained if all the bee-keepers who winter in the cellar would keep a record of their cellar wintering. For instance, the condition of the cellar might be noted when the bees are put in, the number of windows and doors or openings, number of stands in the space, the condition or position of bottoms of hives and tops as well, the temperature of the cellar during the entire winter, the colonies that winter most successfully—those near an opening or those back from an opening. The method of ventilation should always be noted if ventilated at all. If rooms above are occupied or unoccupied, this should also be watched carefully and effects noted. I think all such things and many more should be watched by all cellar winterers and given to the general public. It would be the means of bringing to the light results that would help those who have had little experience in wintering in the cellar. It would be a pleasure for me to have the chance to compare the methods of many cellar winterings and results. I had everything on cellar wintering and can get and hope to see more of it as apiculture goes on.

D. J. BLOCHER.

## Notes by the Way

By G. A. DEADMAN.

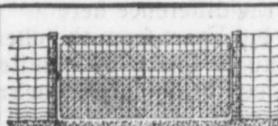
(Continued)

Extracted honey shipped in crates is comparatively safe from damage if the crates falling to pieces by rough handling, as all railway companies keep a man for nothing apparently but to repair broken crates, etc., that are sure to be at the

large transshipping points. If crates are left partly uncovered, to show which is the top, as advised, an objection to this is that the contents collect dust. I found this quite a serious objection. Another is that unless small they are very awkward to handle. I refer of course to 5lb or 10lb tin pails or bottles in crates, not to 60lb tins. I have come to the conclusion that there is nothing that will compare with barrels for packing. I read an article long ago, entitled "Wanted: A Conviction" and it went on to say that until we get a conviction we will be variable and indifferent. Well I have "a conviction" now that there is nothing that will compare with barrels for shipping honey when in either tins or bottles and I was almost going to say even for comb honey. I have had this belief for a long time but never had "a conviction" until this year. Henceforth I want all honey in packages of 10 lbs and under in barrels. There is no packing case that can compare to it, anyway you take it. A barrel will hold about 250 lbs. when in 5 lb. or 10 lb. pails, which is more than 4 crates of six 10 lb. pails each. I refer to empty sugar barrels which if purchased when not much in demand, (I suppose anytime except during the apple harvest) they can be had for about 10c. each. They are preferable to either the regulation apple barrel or salt barrels. We can readily see that when compared as to cost the barrel is away ahead of crates, besides it takes less time to pack and close one barrel than it does four crates, but the difference here is not so marked, but apart from the cheapness it is much easier to handle a barrel than any other large package that has, or ever can be devised. I would rather handle one barrel of 200 lbs. or 250 lbs. than half that amount

in crates, especially when in one crate. Then again it is handled much more carefully in barrels. It is for this reason I frequently ship comb honey in them. I referred to the contents getting soiled when in crates, there is no trouble of this sort with the barrels, so that I know of no reason why they should not be used in preference, unless the quantity is not large enough. Even then if you fill the barrel half full it will compare favorably with crates, unless it may be slightly heavier, but they are a gain in this respect when compared to four crates. There is one more advantage in shipping barrels that is in the "shunting" of freight trains. A barrel is sure of being placed the right side up provided the head is left lower than the top, and pretty sure even if headed up the usual way except when rolling it, but there is no danger whatever from being upset with the shunting. It is true there is not much danger from extracted honey in this way, but there may be. If piled four or five deep and the top one was to topple off the jar may cause your honey to leak, even if in self-sealing tins. My first experience with this shunting process was when I made up my first shipment of comb honey to Winnipeg some fifteen years ago. I helped to load it carefully in one end of a car, but did not take the precaution of either placing something heavy up against it, or of piling stair fashion. I paid for it by having a couple of crates broken by

falling from the top and the wonder is how I did not have more. I certainly would have had if a change had not been made before it went very far. At Fort William the man who had charge of loading the car told me that he had known a piece of freight weighing over 1000 lbs. to be moved some six inches out of its place before reaching Winnipeg. I understand this is not so much due to the shunting as to the train slackening up over some portions of the road causing one car after another to go forward with such force as to be worse than the shunting itself. As to honey in the comb I prefer shipping in barrels when the quantity is not large and the distance very far. Some four years ago I shipped to eighteen different places in the West one lot going to Edmonton, 2000 miles north of Calgary or over 2,000 miles with all the changes incidental to shipping "lake and rail" in neither this nor any of the was a section broken, I have reason to know, as I was on hand see. The heads were closed in the usual way so that rolling it was ably in order. Comb honey in barrels has this advantage, there more spring or "give" to it than when in a box. It stands a good chance of never being so placed that the sections will be exactly the opposite way to what they should be so that the jar and shunting is not fatal. Honey in crates will be loaded one of two ways. the right or wrong, no half way between. Ap



### PAGE METAL GATES

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from the "give" or spring this is a strong point in favor of barrels. As I have already said it is when shipping comb in small lots or long distances and not when shipped in quantities that I favor this method. Just how large a quantity it would pay to ship this way I am not prepared to say. I will have more regarding this in another issue of this journal.

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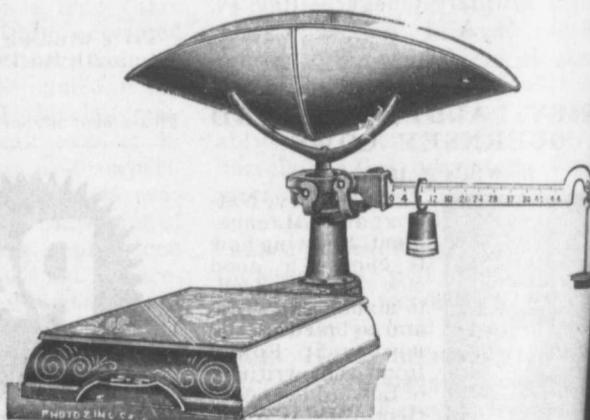
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