

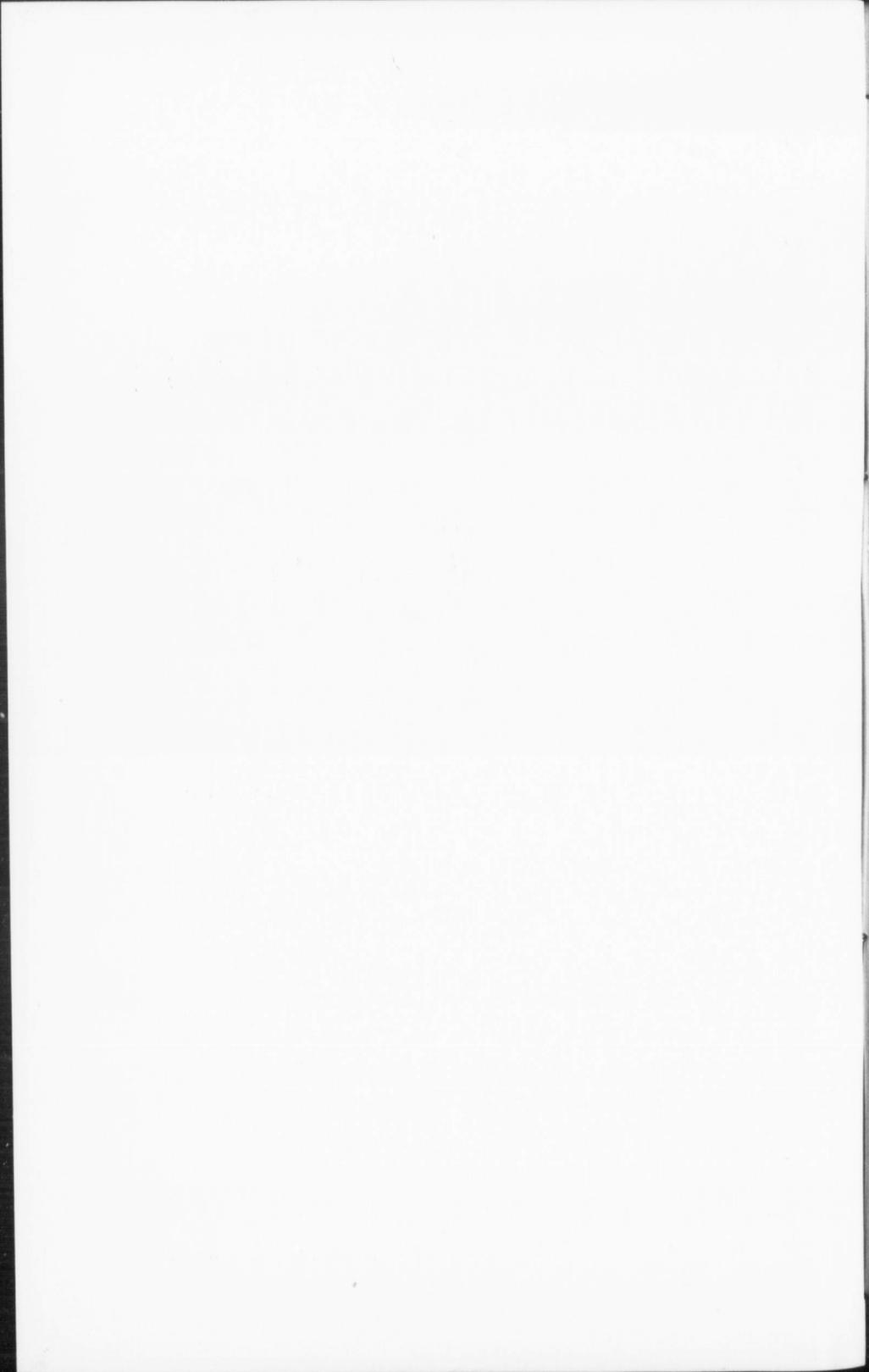
ANNUAL REPORT
OF THE
BEE-KEEPERS' ASSOCIATION
FOR THE
PROVINCE OF ONTARIO
1893.

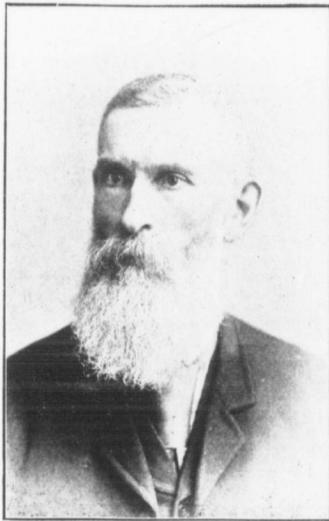
(PUBLISHED BY THE ONTARIO DEPARTMENT OF AGRICULTURE, TORONTO.)

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.



TORONTO :
PRINTED BY WARWICK BROS. & RUTTER, 68 AND 70 FRONT STREET WEST.
1894.





A. PICKET, ESQ., NASSAGAWEYA,
PRESIDENT OF ONTARIO BEE-KEEPERS' ASSOCIATION FOR 1894.

ON

To the Hon

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ANNUAL REPORT
OF THE
ONTARIO BEE-KEEPERS' ASSOCIATION.

To the Honorable the Minister of Agriculture :

SIR,—I have the honor to submit herewith the fourteenth Annual Report of the Ontario Bee Keepers' Association, in which will be found the papers read at the Annual Meeting, recently held at Lindsay, and a full report of the discussions thereon. The Report of the Foul Brood Inspector, and the audited statement of the finances are submitted herewith.

The number of Associations affiliated with the parent society is now thirteen, an increase of three over that of 1892.

It is gratifying to note that there is a very decided increase in the interest taken in bee culture in recent years, and that the expansion of the market for honey is keeping pace with the increase in the production.

Respectfully,

S. CORNEIL,

Secretary.

LIST OF MEMBERS FOR 1894.

Name.	P. O. Address.	Name.	P. O. Address.
Aches, J. B.	Poplar Hill.	Gale, H. E.	Armstrong, Que.
Aikin, Wm.	St. Marys.	Gareau, J. J.	St. Roch l'Achigan.
Alpaugh, J.	Galt.	Gemmell, F. A.	Stratford.
Armstrong, John.	Streetsville.	Gilbryth, Robert.	Kerwood.
Artley, Wm.	Walter's Falls.	Gondron, Moise	The Brook.
Bean, H. J.	Black Creek.	Haberer, Jacob.	Zurich.
Bellerose, L. H.	St. Monique de Nicolet.	Hall, J. B.	Woodstock.
Bernard, Rev. C.	Joliette, Que.	Harkley, John.	Walkerton.
Black, Rev. J. R.	Kingston.	Heise, D. W.	Bethesda.
Black, Alex.	Sonya.	Heline, Jas.	Smith's Falls.
Blais, A. J.	Glen Sanfield.	Henderson, Thos.	South Edmonton, N. W. T.
Blay, Angus.	Wyebridge.	Herbert, Thodule.	Clarence Creek.
Boomer, A.	Linwood.	Hillsdon, W. A.	Ingersoll.
Boyd, Calvin.	Petrolia, Box 442	Holmes, M. B.	Athens.
Brabant, Samuel.	Beauharnois, Que.	Holtermann, R. F.	Brantford.
Brenton, F.	Corbyville.	Iler, Wilson.	Harrow.
Bridge, A.	Westbrook.	Irondale, John.	Dundas.
Brown, W. J.	Chard.	Johnston, Thos. E.	Malakoff.
Brown, Dennis.	Chard.	Jones, E. A.	Kertch.
Brown, Joseph.	Adelaide.	Kay, James.	Port Sydney.
Bullen, Miss H. F.	Campbellford.	Kyle, Mrs. Bennett.	North Winchester.
Bundy, John.	Linwood.	Laflamme, Francis.	Clarence Creek.
Calder, J. W.	Lancaster.	Landry, M.	Clarence Creek.
Calvert, John.	Walsh.	Langsford, Albert.	Maple Grove.
Chalmers, D.	Poole.	Leighly, J. B.	Wellesley.
Charbonneau, Jos.	Plantagenet.	Lepper, Maxwell.	Pictou.
Chrysler, W. A.	Chatham.	Lougheed, Allan.	Britannia.
Clarke, Rev. W. F.	Guelph.	Lundy, Benjamin.	Marburg.
Connor, C. F.	Madoc.	Lush, N.	Peterboro'.
Couse, Wm.	Streetsville.	McArthur, A. D.	Martintown.
Crosby, A. J.	Compton, Que.	McAuslan, James.	Heathcote.
Cruikshank, J. M.	Lyons.	McArtley, W.	Walter's Falls.
Culver, Chas. W.	Simcoe.	McCartney, R.	Rosehall.
Cummer, D. N.	Florence.	McCauley, Thos.	Gravenhurst.
Darling, J. K.	Almonte.	McCrimmon, J. N.	Laggan.
Darling, S. F.	Perth Road.	McDonald, S.	Muirkirk.
Deadman, G. A.	Brussels.	McDonald, R. A.	Greenfield.
Dickinson, Edward.	North Glanford.	McDonnell, R. W.	Galt, Box 406.
Dickson, John.	Dunvegan.	McDougald, A. R.	Glen Norman.
Duncan, Dr. George.	Embro.	McEvoy, Wm.	Woodburn.
Edwards, James.	Arnprior.	McKnight, R.	Owen Sound.
Elliott, J. C.	Carleton Place.	McLean, Rod.	Hopewell, N. S.
Emigh, M.	Holbrook.	McSauge, D.	Glen Robertson.
Emerick, Robt. B.	Tyrrell.	Mark, Jos.	Valentia.
Engle, Conrad.	Poole.	Mason, Jos.	Easton's Corners.
Evans, J. D.	Islington.	Millard, Fred.	Dutton.
Fairley, H. J.	Hamilton.	Miller, F. J.	London.
Farquharson, D. R.	Walton.	Misener, J. G.	South Cayuga.
Ferguson, J. R.	Williamstown.	Moore, Thos.	Carholme.
Ferguson, G. W.	Lambeth.	Morrison, Y.	Dunvegan.
Fowler, R. A.	Emerald.	Munroe, D. W.	Martintown.
Freeman, F. C.	Newboro'.	Myers, John.	Stratford.
French, Augustus.	North Glanford.	Myers, R. H.	Stratford.
Fulton, Wm.	Brewster.		
Fyfe, Albert.	Harriston.		

LIST OF MEMBERS FOR 1894.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Nolan, Wm	Holton, Que.	Simmons, W. W.	Ronson.
Overholt, Isaac	South Cayuga.	Sleeman, Alf.	St. David's.
Parker, James	Napperton.	Sloan, W. H.	Milford.
Panton, J.	Peterborough.	Sly, Aaron	Port Hope.
Penton, Fred.	Walkerton.	Smith, Alex.	Glandine.
Pettit, S. T.	Belmont.	Smith, David.	Theford.
Picket, A.	Nassagaweya.	Smith, R. H.	Bracebridge.
Pierce, Moses.	Brinsley.	Storer, James	Lindsay.
Pierie, John	Drunquin.	Suley, H. B.	Harlowe.
Pressley, Jos.	Clarence.	Switzer, J. F.	Streetsville.
Pringle, Allan	Selby.	Taylor, James	Oakwood.
Post, C. W.	Murray.	Taylor, W. P.	Fitzroy Harbor.
Ramage, Thos	Richview.	Thomas, Joshua	Dracon.
Reman, Josiah	Carrville.	Thurston, Wm.	Bobcaygeon.
River, Chas.	Alfred.	Tinney, J. D.	Oakwood.
Roach, R. W.	Little Britain.	Tolton, Arch.	Walkerton.
Rodman, Isaiah.	Little Britain.	Toombs, Y.	Alexandria.
Rose, J. F.	Balmoral.	Vernon, M. H.	Newmarket.
Rosser, F. E.	Denfield.	Wall, Wm.	Pemberton.
Rowand, Andrew	Walkerton.	Walton, Wallace S.	Scarboro' Junction.
Rowand, Abraham.	Walkerton.	Wells, W. C.	Phillipston.
Russell, W. G.	Millbrook.	Whetstone, Josiah	St. Marys.
Sage, Levi A.	Deseronto, Box 382.	Whitesides, R. F.	Little Britain.
Schell, Levi	Gormley.	Williams, Mark G.	Corbetton.
Schultz, Ernest	Kilworthy.	Willows, A. G.	Carlingford.
Schultz, Aaron	Haysville.	Wood, George.	Monticello.
Shaver, J.	Cainsville.	Wood, S.	Nottawa.
Shaw, J.	Kemble.	Worden, Wm.	St. Paul's Station.
Sherrington, A. E.	Walkerton.	Wrighton, Jos.	Willow Creek.
Schultz, H. A.	Clontarf.	Wyckoff, Jos.	Simcoe.
Silver, H. G.	Danville, Que.	Yodder, John	Springfield.

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ANNUAL MEETING

OF THE

ONTARIO BEE-KEEPERS' ASSOCIATION.

The Fourteenth Annual Meeting of the Association was held at Lindsay, on January 9th, 10th and 11th, 1894.

The gathering having been called to order, the minutes of the last meeting, which had been published, were taken as read.

MAYOR RAY'S ADDRESS.

The Mayor of Lindsay then delivered the following address of welcome: I am glad to welcome such a representative gathering as is assembled here in the interests of what has become a very important industry. I am sure you will find our citizens hospitable and anxious to make you feel at home, and make your duties pass as pleasantly and agreeably as possible. Had you visited Lindsay in the summer time, Mr. Corneil would have, with a great deal of pleasure, taken you around and shown you the beauties of our country. To the west we have the townships of Mariposa and Ops, to the north Fenelon, to the south and east, Emily and other townships of as fine an agricultural country as you can see anywhere. Mr. Corneil would have, with delight, put you on board a steamer and taken you along the Trent valley waters stretching for hundreds of miles east and west—a trip you would thoroughly enjoy. I doubt if there is finer scenery within our fair province than you would meet with on those waters. While your visit here is official, I hope that your experience will be such that it will give you a favorable impression of our town, and I am sure you will not be sorry that you arranged to hold your Convention among us. I am present simply on behalf of the citizens to welcome you cordially. The special business that brings you here, and the work you have been doing, are not new to this section of the country. There are a great many of our people interested in it. This meeting of your Association will have a great effect in pushing forward the bee-keeping industry in this part of the province. I must congratulate you on the very successful showing you made at the World's Fair. I welcome you to Lindsay, and hope you will enjoy your visit.

TREASURER'S REPORT.

Abstract statement of receipts and expenditures of the Ontario Bee-keepers' Association to January 10th, 1894.

Receipts.

Cash on hand from previous year.....	\$ 2 02
Legislative Grant	500 00
Affiliated Society fees (1893).....	65 00
Membership fees (1893).....	193 00
Membership fees (1894).....	16 00
Affiliated Society fees (1894).....	15 00
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Expenditure.

Grant to Affiliated Societies.....	\$200 00
Grant to Industrial Exhibition.....	25 00
Grant to Western Fair Association.....	10 00
Secretary's salary.....	50 00
Treasurer's salary.....	25 00
Auditors' fees.....	4 00
Directors' and Officers' railroad expenses and allowance for board.....	196 10
Periodicals for members.....	75 00
Printing for 1892.....	24 22
Expenses of committee <i>re</i> so-called "Sugar Honey" legislation.....	80 76
Expenses of Representative to Toronto Exhibition (<i>re</i> prize list).....	5 60
Treasurer's expenses to convention.....	12 75
Letter-press book for Secretary.....	10 15
Miscellaneous.....	26 40
	\$744 98
Balance on hand.....	\$ 46 04

We, the Auditors, have examined accounts and vouchers and receipts as per above account, and report all correct.

R. F. HOLTERMANN.
R. F. WHITESIDES.

Mr. McKNIGHT: I believe that this is the first occasion in the history of The Ontario Bee-keepers' Association when they have not a clean sheet to show, or when they have not something to their credit. If I understood the report aright, it is not as satisfactory as I would like to see it. As far as the receipt of the money is concerned and its disbursement, the Auditors' report is thoroughly satisfactory, but I think, if I understood the statement, that there are outstanding liabilities against this Association which have only been hinted at, and the members of this Association are in the dark as to their extent. We have an agreement with a certain firm to furnish the members of this Association with a certain substantial return for the money that was paid them. That firm in the meantime dissolved. The responsibility I think still continued to supply, but circumstances were such that they could not possibly do so and the duties were transferred to another and a different firm. That is the situation as I understand it. What arrangement was made between these two firms, I don't understand. I question if there are many present who know anything about it. It is not our business at all, if we had received what we contracted for and what we paid for. We did receive it, but in a different form from what we expected, and the result is that because of this change there is an undefined liability against this Association, the amount of which we are not put in possession of, either by the Treasurer or by the Auditors. The amount, as near as they can arrive at it, should have been stated, and the money now shewn as a balance of cash on hand would shew our correct position. We have forty odd dollars to our credit, but we have liabilities to meet which we contracted last year. The amount I don't know. I have met nobody that could tell me. My impression is that instead of having forty-six odd dollars to our credit, we would be on the wrong side of the ledger. That is my own impression. What I was going to point out more particularly is that when that is ascertained and discharged, and the balance is shown on the wrong side, this will be the first time in the history of The Ontario Bee-keepers' Association that such a thing has happened. We have always had a cash balance. If our liabilities contracted last year were paid up there would be a different result. The lesson to be learned is that it is our duty to live within our means; that we will not contract debts that we have not the means of discharging. I have been secretary for a number of years, and, I believe, succeeded every time, so far as I was able to do, in keeping the expenses during the year within the limit. I think that should be remembered; that we should look to and insist upon it. An Association's credit depends altogether upon its being able to meet claims. If it cannot do that, it is bankrupt.

Mr. HOLTERMANN: The account of the Beeton Printing Company is somewhere in the neighborhood of \$120. This liability and whatever expenses will be incurred at this meeting are all the liabilities that the Association have, so that the members can form a pretty accurate idea.

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Mr. CORNELL: The account rendered by The Beeton Publishing Company against this Association up to the 27th June last from the 24th of January is \$127.38. As far as the subscriptions to *The Canadian Bee Journal* are concerned, this account is correct, with the exception of three items of fifty cents each. There are, as I have said, other charges, for instance there is letter-heads, \$6.75, and envelopes, \$4. On this account \$75 have been paid. I might, perhaps, as an item of information, say that the Executive Committee did not consider themselves warranted in paying this account in full under the circumstances referred to by Mr. McKnight—relative to the change in the *Bee Journal*. We thought it better to leave it to be dealt with by the Board. It has not yet been submitted. No action has been taken.

Mr. HOLTERMANN: It might be of interest if I would state our side of the case.

Mr. PRINGLE: I would like to know whether the new Company proposes to carry out the obligations of the Beeton Printing and Publishing Co.

Mr. HOLTERMANN: At different times, in one way and another, the former publishers of *The Canadian Bee Journal* approached us in regard to the purchase of that publication. So far as I was concerned I always said I would be pleased to see the Association take hold of *The Canadian Bee Journal*, and, that in case we should, we would support it in every way in our power. It has always been considered by the leaders—if I may call them so—that they did not see their way to publish the *Journal*. It finally came to this: There was an offer from the United States for *The Canadian Bee Journal*. I must confess that I did not like the idea, and I did not think that it was in the interest of Canada that they should not have the *Canadian Bee Journal*. I knew from examining the accounts that paper had never paid, and we need only examine the *Journal* to see that it was not of the value that it should be. It was impossible to have a weekly bee journal. It was also impossible to have it once in two weeks, everything considered, and, after urging the firm with which I am connected, they decided to make the attempt. We agreed to publish a monthly *Journal*, and to assume the liabilities of the old firm; that is, any one who had paid the subscription a year in advance would be sent the *Journal* for that length of time. We received nothing whatever from the old firm for that. Although there were from sixteen to eighteen hundred subscribers on that list, there were only four or five hundred subscriptions paid up. It was therefore an absurdity to think of publishing twice a month. I think there is no one here present who would desire to have Canada without a bee journal. There is something necessary to bind the local Associations and the Ontario Association together, and, for that reason and many others, it would be a great injury to Canadian bee-keepers to have the publication under the control of a United States firm. We are trying to make the *Journal* as good as we can. It is not paying. We are making every effort to have a good *Journal*, and we are earnestly anxious to have you support us in that effort. I think you will agree with me that we are not attempting to use the columns for our own purposes. That is the position of affairs.

A MEMBER: Did you assume any responsibility further than to supply the *Journal* to members?

Mr. HOLTERMANN: Whatever subscriptions had been paid in advance, we agreed to send a monthly that length of time.

Mr. MCKNIGHT: Outside the interest we all took in it as a pure and simple business transaction, The Ontario Bee-keepers' Association do not know any one except the late publishers of *The Canadian Bee Journal*. That would be the position in law any way. The contract was entered into between that Association and that Company. The Association agreed to pay a certain amount of money for certain substantial returns. If by any means that Company could not carry out its contract and transferred its liability to another concern, we don't know that concern. If there was an honest agreement made between them that the obligations of the one were to be assumed by the other, that was their business. I believe they have carried out their agreement, but what I would like to know and what I don't quite understand is whether The Beeton Publishing Company's account covers all claim against this Association or whether the Company to whom they gave over their right and interest also has a claim.

Mr. CORNEIL : The Beeton Publishing Company only claims up to the 27th of June.

Mr. MCKNIGHT : Does the Company to whom it was transferred make any claim on us ?

Mr. HOLTERMANN : No.

Mr. MCKNIGHT : Our only liability then is the account of the Company with whom we made the contract ?

Mr. HOLTERMANN : Our Company makes no claim.

Mr. MCKNIGHT : I understand, then, that no claim has been made or will be made from any other source than the Beeton Publishing Company.

Mr. COUSE : Are we willing to pay the full amount ? Have they given us what they agreed to ?

Mr. CORNEIL : That is a matter that should be decided by the Board. This whole discussion in reference to the *Journal* has grown out of the wish of one of the members to know the position of affairs. I think that any further action with regard to this matter is the work of the Board.

Moved by Mr. MCKNIGHT, and seconded by Mr. PRINGLE that the financial report be adopted. Carried.

SECRETARY'S REPORT.

LINDSAY, January 9th, 1894.

To the Members of the Ontario Bee-Keepers' Association : I beg to report that the number of members in 1893 was 193. Three new local Associations were organized during the year in the extreme eastern part of the Province and affiliated with this Association. The total number of affiliated Associations during the year was thirteen. Four of these have already affiliated for 1894. It seems that the date for affiliation as provided for in the by-law, May 1st, is too early, some of the societies not holding their summer meeting until after that date. I would suggest that the by-law be amended, making June 1st the latest date for affiliation, instead of May 1st.

S. CORNEIL, Secretary.

Moved by Mr. HALL, and seconded by Mr. ACHES, that the report of the Secretary be adopted. Carried.

PRESIDENT'S ADDRESS.

Mr. F. A. GEMMELL then delivered the following address: Another year having passed since I made my first address before this Association, I am pleased to have the privilege of attempting a second, hoping that all will kindly treat it with as much leniency as was done with my former one. Possibly, however, you may think that the excuse then given for its defects ought not to hold good on this occasion, as by experience one is expected to improve. Be this as it may, I nevertheless intend taking refuge behind the fact that, as the programme arranged for this Convention is an exceedingly long and interesting one, I am compelled to seek and adopt the motto that "brevity is the soul of wit."

With this as a preface, I suppose that I cannot do better than to state that, while the past season was not what we, as bee-keepers, would have desired, still it might have been worse; as, on account of the very severe winter, causing a great mortality among the insects, as also another very backward spring, the laborers were not as numerous when the clover commenced to yield, as we would have liked them to be. Yet for all, it was a great treat, notwithstanding the scanty, and in some localities the entire absence of any flow from linden or thistles, that the abundant yielding qualities of our favorite white clover once more enticed the bees to do good work during its three or four weeks of nectar secretion, and bee-keepers being an enthusiastic and hopeful lot of mortals, we as a matter of course will prepare for the big flow (that has been so long in coming) which we really look for next year.

I am pleased to see that our meetings are still improving, both in regard to number of ladies attending and the increased interest all, as a rule, are taking therein. This is as it should be, and if we can only entice our apicultural sisters and brothers to still further assist in making our conventional gatherings more attractive to outsiders, by giving suitable entertainments such as already proposed by myself (and I understand to be carried into effect here, a large amount of error and superstition in regard to our pursuit will vanish, and a still larger amount of one of the most healthful sweets will be consumed in the near future.

Another source of pleasure to me, and I am sure to all engaged in honest honey production, is the deep interest that both the Provincial and Dominion Governments are taking in our chosen calling, a thing by the way, which should have been done before. However, lest I may be misunderstood as complaining, I may say that if such action has not been taken before, it has rather been the fault of ourselves than that of our legislators. In addition to what we have already secured, I am assured the coming session of the Dominion Parliament will grant the law regarding the "sugar honey fraud," the particulars of which the deputation that waited on the Minister of Agriculture will shortly give you.

As to the honey exhibit at Chicago, I will merely state that its importance to Canada cannot be too vastly estimated, but as Mr. Pringle, the gentleman in charge of said exhibit, is also with us, it would be both unwise and indiscreet to attempt to say anything more than simply draw your attention to the fact that I have not overlooked it; especially as I embraced the privilege of gazing on the same while in Chicago viewing the other great sights of the "White City," as well as attending the also great North American Bee-keepers' Convention.

As another proof of the advancement of apiculture, especially in Ontario, I might refer to the increase of our local organizations, several of which have sprung into existence during the past year, with good prospects of others soon following. As a member of a number of local or county associations, possibly you will not think me as assuming too much if I assert that, as a rule, their importance in the past has just been a trifle undervalued, as I do know for a certainty that some very important matters have had their origin therein. I consequently offer the suggestion that the secretaries of such associations correspond with each other, giving information of the date and place of meeting, with the view of having any subject of special interest to all more fully discussed before being presented to the Ontario Association.

The next subject that I would bring before your notice is the marketing of honey—a subject which, by the way, I touched upon last year, and which, although often mentioned in periodicals and occasionally discussed at conventions, is to me not yet threadbare by any means. And the remedy is still not yet satisfactorily solved, at least in some quarters. My own individual efforts have thus far proved unsuccessful in my own neighborhood, for the reason that the majority of those (especially the small producers) seem to think the larger towns and cities the best places for disposing of their crop, instead of endeavoring to find or build a market in the immediate vicinity where the honey is produced; consequently when marketing a supply, and not finding as high a price as expected, rather than make any further attempt to secure a reasonable price, they accept anything offered them, sometimes almost giving it away. (The latter way of disposing of it is no doubt attributable to the generous disposition most bee-keepers are

supposed to possess.) We must encourage more local or home consumption, as the margin between the wholesale and retail dealer is now so small that the former will not much longer continue to handle our product. Let us hear from Mr. Holtermann and others concerning their views of the case.

Having now arrived at the last topic of my address, viz., foul brood, I need not inform you that it is my earnest desire that this nuisance should be entirely wiped out of existence, and I hope that you will not think me over-presumptuous in stating (more especially as I have learned through my official capacity the dread others have of having the stigma attached to their apiaries) that the disease does not now exist in my apiary, nor has it done for some time; neither has the scourge any foothold in my once much advertised locality. With the assurance that Mr. McEvoy has again done efficient work during the season just closed, I need only add that I look soon for the total extermination of the pest from our midst, and in this I am sure you will rejoice with me.

Lastly, allow me once more to thank you for selecting me to fill a second term in this capacity, as well as add my concluding sentence, which I doubt not many of you have been looking for some time since, that I have endeavored to carefully and expeditiously carry out the duties devolving upon me during the past year.

I will close by wishing you a bonanza crop and remunerative prices for 1894.

Mr. HOLTERMANN: I have listened very attentively to the President, Mr. Gemmell. I am sure there are a great many points worthy of our consideration brought out in his address. He mentioned my name in regard to local markets. During the last ten days I have been travelling through the northern part of the province, and as at home we have honey for breakfast every morning, and being at an hotel, I thought I would try to get a little bit of honey. I went from store to store, and I could not find one pound of honey in a store in Perth. There is something radically wrong there. There are parts of the province where we hardly know how to sell our honey at a reasonable price. There are other parts of it where it can't be purchased. Why is it that they will sell almost every product but honey? Bee-keepers have failed in one direction, and that is that we are not allowing the merchant a sufficient margin on his sales. Supposing honey is retailing at ten cents, we find, unfortunately, that bee-keepers, or a great many bee-keepers, will prefer retailing honey at nine cents to wholesaling at eight and retailing at ten. The difficulty is simply this. Just as soon as we come down in retail we must eventually come down in wholesale prices. The wholesale man is able to reach a great many customers when we cannot reach them. If we keep the retail price right, I don't think the tendency will be downward, as at present.

Moved by Mr. HALL, seconded by Mr. HOLTERMANN, that the thanks of the Association be tendered to the President for his kindness and efficiency in the past. Carried.

LETTER FROM REV. W. F. CLARKE.

A communication from Rev. W. F. CLARKE, of Guelph, was here presented and read by the Secretary. The letter is as follows:

GUELPH, Jan. 3, 1894.

To the Ontario Bee-Keepers' Association, in annual meeting assembled.

I feel it my duty to bring before the Association a matter of privilege. At the meeting of the Oxford Bee-Keepers' Association, held in Woodstock, Ont., June 1st, 1893, it was moved by J. B. Hall, seconded by Wm. Goodyear, and resolved unanimously: "That some of the writings of W. F. Clarke, signed 'Lindenbank,' in the *Montreal Witness*, upon bees and honey are very erroneous and misleading, and the Association believes that the writings of the said W. F. Clarke, not only in the *Montreal Witness*, but in other papers, are doing great injury to the business of bee-keeping; therefore, the *Montreal Witness* is hereby respectfully requested to discontinue publishing anything from the pen of the said W. F. Clarke upon the subjects of bees and honey, and that this resolution be published in the *Montreal Witness*." The proprietors of the *Witness*, of course, forwarded the communication to me, as properly belonging to that department of the paper of which I have had charge now for about 30 years, and I, regarding it as beneath

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contempt, took no notice of it. But this Oxford Association is affiliated with the O.B.K.A., of which I am a member, and I lay it before the body as a question of privilege. I have no words in which to express my utter abomination of the spirit of intolerance herein displayed. These men are worse than those who used to burn heretics in days of old. They do not specify my heresies, nor do they give me a chance to retract. Because some of my writings on bee-keeping are not acceptable to these narrow-souled men, I am to be squelched and silenced. I have ever courted the freest criticism of my writings, but this is not criticism, it is persecution; it is gross defamation; it is an interference with my right of free speech, which I resent as an insult to my manhood and common sense. I believe the resolution is actionable for damages, but have taken no legal advice on the subject as yet. It is a direct assault upon my means of getting a livelihood, and is harmless only on the supposition that the parties who passed it are destitute of influence.

Respectfully submitted,

W. F. CLARKE.

The reading of Rev. Mr. Clarke's letter was followed by a warm discussion. In defence of the action of the Oxford Association, it was alleged that Rev. Mr. Clarke wrote an article for the *Montreal Witness* on extracted honey, in which, through misrepresentation of the facts, he tried to create a prejudice against honey in the liquid form, thereby doing serious injury, not to one bee-keeper only, but to hundreds. On the other hand it was contended that, assuming the charge to be true, it is highly improper for the members of any association to constitute themselves censors of the press and assume to dictate to the proprietor whose writings he shall not publish; that, instead of attempting to silence Rev. Mr. Clarke on the subject of bees and honey, the proper course would have been to send a correction of his misrepresentations to be published in the columns of the journal in which they were made.

It was finally decided to leave the matter over for the present, to be dealt with later on.

EXTRACTED HONEY.

BY R. H. SMITH, BRACEBRIDGE.

There is very little difference in the management of the bees up to the commencement of the honey flow, whether we produce comb or extracted honey. Colonies that have come out of winter quarters in good condition and escaped all the damages of changeable weather and spring dwindling, are usually booming by the time clover has commenced to yield honey, and if supers are not put on swarming commences. But if the apiarist wishes to run for honey, and does not desire increase, he will have provided at least two supers for each strong colony, filled with combs or comb foundation. Just before the bees get crowded I take out one or two combs containing a little brood with the bees adhering, being careful not to take the queen, and I then fill up the space in the brood nest with empty combs. The combs with brood are placed in the centre of the extracting super, and after placing a perforated metal board on the body of the hive the super is placed on the hive, and the bees will want little attention for some days, there being no danger of swarming. If the flow is good they will probably require another super in about ten days, when the first may be raised up and another containing empty combs placed next the brood nest. This, with the average colony, is sufficient, as the supers have a capacity of one hundred pounds each, and as we have an interval between clover and linden the clover honey is well ripened and sealed by the bees, and may be extracted and the combs replaced, ready for the linden or fall flow. Some years ago we practiced extracting from the brood chamber, when most of the brood combs were taken out, the honey all extracted, be it little or much, and if the person who turned the basket was a little careless the larvæ and more or less pollen would be thrown out. It is next to impossible to get a first-class article of extracted honey by such methods, and I believe more bees were lost by robbing them so bare than from any other cause; but that, like the old way of brimstoning bees, is of the past. With regard to ripening extracted honey by artificial means, many bee-keepers have gone to considerable trouble to provide solar evaporating tanks and other means to ripen their honey, and while it may be necessary in certain localities and with

some kinds of honey, the average bee-keeper will find, if he will provide plenty of combs, the bees will ripen and seal the honey under the cheapest and best possible conditions, and if extracted and run into vessels that can be covered tightly, so that it cannot absorb moisture from the atmosphere, it will retain the flavor and aroma that is so highly prized in comb honey. Honey produced under these conditions will create a market for itself if properly put up and brought to the notice of the consumer.

QUESTION: What would you do supposing you had not combs to furnish?

MR. SMITH: Give them foundation.

QUESTION: Which would you prefer, combs or foundation?

MR. SMITH: Combs, if they are clean and nice.

QUESTION: What size supers would you use?

MR. SMITH: On the average, it would hold one hundred pounds. The advantage in having this super is that, as it gives the honey a better chance to ripen, it is to be preferred.

MR. CORNELL: Do you let your queen into the upper storey?

MR. SMITH: No; Mr. Jones used to extract from the lower storey alone. The object in putting brood up into the upper storey is to draw the bees up. They do not breed there.

MR. PETTIT: Do you recommend the Jones hive?

MR. SMITH: I think it makes practically little difference.

A MEMBER: Do they winter well?

MR. SMITH: Fairly well. As well as any.

MR. ACHES: Do you recommend the large super?

MR. SMITH: I think it makes very little difference if the weather is warm and the bees strong. When the brood is placed in the centre they do not get chilled. As they need room they spread out.

MR. GEMMELL: You will understand, Mr. Aches, at the time he gives the additional super it is pretty well on in the season. The result, according to my experience, would be better with a smaller super. I put on a super of twenty-five to fifty pounds.

MR. PETTIT: The great drawback would be the two sizes of combs.

MR. COUSE: I would like to say, in regard to the Jones hive, that I put the upper storey on without the brood. The consequence was that it was too large. They swarmed. I would recommend something smaller; a lower frame.

MR. HOLTERMANN: When Mr. Couse used the Jones hive, I had some experience with it too. We are inclined to think that one upper storey is sufficient. We are working at a disadvantage so long as we do that. We can get this advantage of more room by using the Langstroth frame. I am not a hobbyist on the particular size of frame to use, but, at the same time, it appears to me that if we can get these advantages by using a frame that is generally used, would it not be better to use it? We know supply dealers throughout the country are in a position to give us the Langstroth frame. Would that not be sufficient recommendation for us to adopt it?

MR. HALL: What makes the Langstroth frame a "standard"?

MR. PRINGLE: About thirty years ago, when I bought my first swarm of bees, I had them put into a Langstroth hive. The next time I started I got a Jones hive. I did not like them for the production of comb honey, and for extracted honey they were too heavy. I am now using the Langstroth frame. I suppose it is called the "standard" frame because it is generally used. It gets its name from the inventor, the Rev. Mr. Langstroth. It is a happy medium. I have used half-storey frames, or frames that are only six inches deep. At the time you wish to give your colony more room in the spring, you can give them a half-storey. Even if the bees seal them all over, it is very little trouble to uncap them. They are much easier handled. When

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Mr. Langstroth invented his hive, he invented that frame. It was not too deep. It enticed the bees to enter the super because it was not too deep.

Mr. HALL: Mr. Langstroth did not make that frame. A number of others took it into their heads that it was the best thing to sell. Moses Quinby, a chum of Mr. Langstroth's, had the eight-frame Quinby. They found that the size of hive they wanted. Mr. Langstroth was a splendid bee-keeper, but he did not produce honey by it. Mr. Quinby made his bread and butter by it. I have used the old Moses Quinby hive for over twenty years. I have been fool enough to twice alter that. I have 120 of these hives in my possession now. I can get as good results in any department of bee-keeping, whether in the production of comb or extracted honey. The "standard" is in the man not in the hive.

Mr. GEMMELL: I would like to tell you that in Moses Quinby's book he states that he had received a hive from Mr. Langstroth.

Mr. HALL: Don't call it "standard."

Mr. PICKET: A question was asked Mr. Smith in reference to placing comb or foundation for the bees. The majority of my hives are the old Jones hives. Upon placing our swarms on comb foundation, we found that we could get more honey from the foundation than from the comb. You all know that those swarms that arrive early do not produce honey like those that come late in the season, from the fact that they came at a time when the flow is not at its best.

Mr. PETTIT: Do you say that of two swarms of equal size, at the same time, one supplied with foundation and the other with empty combs, that the one supplied with the foundation would give you better returns than the one supplied with empty combs?

Mr. PICKET: It seems unreasonable, but I found it happen with me. Combs that are more than a year old require some work before they are fit for the reception of honey. When the flow is at its height they will draw out foundation and fill it with honey quicker than they will fill empty combs.

Mr. GEMMELL: You use a six-inch deep storey, Mr. Smith. Do you not find that the bees are apt to swarm? The object of putting the brood above is to prevent swarming and draw the bees up. Don't wait until they need more room. Give them plenty underneath. It is not necessary in all cases that extracted honey should be sealed in order to be ripe. I have seen some thicker that was not sealed. You can clear up those half-storeys.

Mr. CORNELL: I think beginners should be warned against the half-storey. There may come a time when they will desire to let their queens up into the upper storey. Last season I had one yard in which I had forty-two colonies. In the first place, I keep the perforated metal over the first storey; put two storeys on top of that, each containing ten frames, 10x16 inside measure. Later on, when the hive got very full of bees, I let the queen into the second storey. I subsequently raised the second storey—bees, brood and all—to the place of the third storey. I did that so that I would have plenty of brood in the upper storey about the time clover would be done and buckwheat commencing to yield. When buckwheat honey threatened to destroy the white honey, we extracted the honey from the second storey, hunted up the queen, and put her into the first storey, carried the third storeys into another part of the yard, and from those I made my increase. From thirty-five treated in this way I had over eighty nuclei. I had somewhere about forty or fifty wintering. My point is that when such a movement as this is desirable, if you have not your combs all alike you can't do it.

Mr. McEVoy: Where they are running for extracted honey, half-storeys should be used in every place in the world. Take the locality in which I live. Uncap honey in the evening—they will rush that honey into the upper storey. From these half-storeys I have secured a crop of spring honey. This year I had seventy-five.

Mr. HOLTERMANN: In going through the country how many places do you find like that? You know that you are in a locality where there is a great deal of fruit.

Mr. McEVoy: No. I am going to get the bees strong. That is the same in other localities. I am outside of the fruit belt. These half-storeys answer the great purpose.

The more bees you get the more honey you get, and the more honey you get the more money you get, and that is what we are after. There is no bee-keeper on earth but should have half-storeys.

Mr. HOLTERMANN : What do you do with this spring honey ?

Mr. McEVoy : Leave it in the super. There is no bee-keeper in the business but should keep his eye on the brood chamber. In the spring this uncapping creates a flow. I would give the brood a heavy feed. If you uncap a hive you let too much heat out. When the combs in these half-storeys are uncapped you don't find any starved larvæ. Did none of you ever find your larvæ on their backs? When you find a lot of dried larvæ uncap as quickly as you can. Feed your brood. These half-storeys are really necessary, and if you don't get them you miss it—that is, for extracted honey

Mr. SMITH : I think there is quite a difference between Mr. McEvoy's locality and ours. By the time we get bees ready to take half-storeys, they are able to take large ones.

Mr. WELLS : I do not agree with Mr. McEvoy about the half-storeys. It is too much work. My hives are between Jones and the Langstroth. I want all my frames to be one size. When my hives get full of bees I put on a top storey. Sometimes I take out some brood, and if there is a great deal of honey I put some on the top. When that gets full, I put some under it. I find I can get a great deal more honey than with a smaller frame.

Mr. McEVoy : Did you ever try the system I spoke of ?

Mr. WELLS : Yes, and got tired of it.

Mr. MYERS : I was going to remark that this has dropped into a discussion on hives. It does not make any difference what kind of a hive you use. One point has been overlooked. It was brought to my notice by a question asked here. It was something like this : If you have not got either comb or foundation, what are you going to do? The bee-keeper is rather in a bad fix. It would be his best plan to lay out his last dollar in comb or foundation if he is going to produce honey. What he has to bear in mind is to leave the honey right in the hives until the very last thing; and if you have not got combs, spend your last cent. in getting them, but leave the honey until it is thick. If you have not got combs, and you take the honey before it is ripe, it will ruin your reputation as a honey-producer.

Mr. PETTIT : Get a sufficiency of comb. You must use foundation if you have not comb. I guarantee this, that if our combs are clean, the bees will go right up into them. I have combs now twenty years old. They have been used twenty years in succession in the upper storey, and are white now. The bees ask no questions. They go right up and take possession of them. The idea of taking a couple of combs up to prevent the bees from swarming is right. It will do that. The real reason, though, why swarming is prevented is because these combs are taken from the centre. This gives more room, and that is what they want. If you take anything from the brood chamber, you usually get something that is not in keeping; that honey goes along with the other honey when you extract, and you injure the whole. Take a couple of frames out to prevent swarming. Have some colonies somewhere else and put them there. I want to talk about this foundation. Mr. Picket's remark as to what is the proper thing to do should not go out from this Convention.

Mr. SMITH : There is one thing I did not explain—what we do with these combs. We do not extract from these. There may be some pollen. We use them for colonies in the fall.

Mr. McEVoy : Mr. Cornell has asked a very important question about how long it would take to uncap seventy-five colonies. It only takes about eight hours, not longer.

Mr. CORNELL : That is just six and one-half minutes to each hive.

TUESDAY EVENING SESSION.

Upon re-assembling in the evening, the President called upon Mr. R. McKnight, of Owen Sound, for an address, of which the following is a report :

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HONEY.

I may say it is a rather trying ordeal for a man to face an audience and attempt to interest or instruct it in these days when the schoolmasters are abroad in such numbers. A few days before I left home I received a card from the Secretary saying I had been selected to say something by way of filling up the programme on one of the evenings during the sessions of this Association. My circumstances were such that I had no time or opportunity to make preparation for doing so, or even to think or fix upon a topic. On mentioning my dilemma to our President, Mr. Gemmell, to-day, he generously came to my rescue, and suggested "Honey" as a good subject to treat on such an occasion. I am very grateful to him for thus furnishing me with a "text." It is a very commonplace one to treat before an audience of bee-keepers—an audience composed of the brains and matured experience of the class to which they belong in this province. Still, the topic has something in it we don't all understand, and by way of demonstrating this I ask Mr. Blank down there in the audience, "What is honey?" Mr. Blank pauses a while and replies, "Why, honey is honey; everybody knows what honey is." Your answer to the question is a very unsatisfactory one, sir. I will furnish you with a better definition, but one you may not find in the dictionary—one, however, that suits me well enough: Honey is a translucent, saccharine syrup, that all children and most grown up people are fond of. Now, Mr. Blank, No. 2: Where do we get honey? You answer, "We get it in bee-hives." Good. And how came it in the bee-hives? "The bees collected and stored it there." Good. And where did the bees get it? "In the flowers, of course." Aye, and where did the flowers get it? Now you hesitate. That is evidently a "poser." Well, it is the consideration of the last question I propose discussing for a few minutes this evening. I set out with the assertion that the atmosphere is the source whence our honey is derived, and I say, further, that the substance of every green thing on the earth's surface—from the tiny plant to the monarch of the forest—is mainly derived from the same element. Science has clearly demonstrated this fact. It is a fact that is easily demonstrated, too. Fell a tree and burn it up; the ashes that remain represents just what of its substance came from the soil. The rest is driven off and mingles with the air. It is another instance of "dust to dust," and the balance to the source from whence it came.

To understand how honey, and plants and trees from which it is collected have their origin in the atmosphere, we must know something of the composition of the atmosphere, and the nature of plant life. Here let me say that one of the advantages of bee-keeping is that the prosecution of it leads intelligent, observing people into channels of thought they would not otherwise enter upon. To understand it fully, the domain of science must be pretty well cultivated. Hence the bee-keeper of an enquiring mind finds in it ample scope for the exercise of his talents, and usually becomes an enthusiast in the business.

The constituents of the atmosphere in the main are no longer a secret. Every schoolboy knows that it consists of oxygen and nitrogen, in the proportion of nearly one to four in volume, but it has other elements as well, one of which is carbonic acid. This is the source from whence we derive our honey. It is the source, too, that nourishes, and repairs and builds up the plants and trees that secrete honey. The proportion of carbonic acid in the atmosphere is comparatively small, being only about four-tenths of one per cent. of its volume; yet this fraction is quite enough to supply the wants of the vegetable world.

It has been estimated that there are 28 tons of carbon in the atmosphere that overhangs each acre on the earth's surface. As less than a third of the earth's surface is covered by vegetation, and as the atmosphere is ever in motion—moving from place to place—and as the loss of carbonic acid through its appropriation by living plants is ever being given back to it through the decomposition of vegetable matter, there is and will continue to be in the atmosphere ample carbon to supply the ever-recurring wants of the vegetable kingdom. Hence we may look forward to an annual honey crop while the plant remains as now constituted—not always uniform, however. It remains for me now to outline how living plants elaborate honey from the carbon of the atmosphere.

We can only understand this by knowing something of structural and physical botany. We will select a tree for our purpose, because it appeals more forcibly to our senses than a tiny plant. What, then, is a tree? I answer it is at once a living and a dead thing. Every particle of matured wood in its trunk and branches is dead matter. It is death preserved from decay by its environments. It has in it no power to aid in the further nourishment or development of the tree. The leaves, the bark (especially the inner bark) and the sapwood alone are alive, and in these the work of nourishment and development are carried on. It is in the leaves especially that the elaboration of suitable food for the plant or tree is carried on. We ought, therefore, to know something of the structure of a leaf in order to understand our subject. But time forbids a close investigation of it. Suffice it to say that its pores and cells are what we are more particularly concerned with, the cells especially, because it is in the cells honey is elaborated. The epidermis, or outer skin, of a leaf is closely studded with pores. These pores range in number from 800 to 170,000 to the square inch of surface, and it is through these pores the carbon of the atmosphere is absorbed and received into the cells where it is worked into honey. Cells also abound in the inner bark of branch and stem. They are especially active in the interposed cambium layer, lying between the newest strata of wood and bark. These are annually renewed and maintain a living communication between the rootlets on the one hand and the foliage on the other. These cells, wherever found, contain protoplasm which has definite relation to neighboring cells, and with the outlying carbon of the atmosphere. Protoplasm is the living, active matter of the plant or tree. When the carbonic acid of the atmosphere is received into the protoplasmic cells of the leaves of plants and trees, it undergoes three changes before it is fitted for cell building. It is first converted into starch, which is the basis of honey; then into sugar, or honey if you please; afterwards into cellulose, which is fully elaborated plant food.

Every green plant contains starch, therefore every living plant has in it the basis of honey. Who then will dogmatically assert what are and what are not honey producing plants? But this is not germane to my topic. I have said when the carbon of the atmosphere is absorbed by the living plant it is first transformed into starch through the agency of protoplasm and leaf green, and then into sugar. We stop at this stage of the elaboration of plant food, because it is then, and then only, we get out honey; and we get it in greater or less quantities in proportion to the reserved store of starch. If plants had no power to store up more starch than is necessary for their immediate wants, we would have no abnormal honey flows; but they have the power to store up more of this article than they can work into tissue, and do so occasionally. It is under these circumstances we get the big honey crops if we have the working force to collect it. The excess of food over the requirements of the plant, is, while in the sugar stage, determined to the flower, or oozes through the pores of the leaf, flowing over the surface. The former is called nectar and the latter honey dew. They are substantially one and the same thing, the main difference existing in the fact that that in the flower absorbs a portion of its essential oil which gives the nectar its aroma, hence the expert can readily tell the class of flowers from which honey has been collected. Honey-dew is destitute of this aroma, but is just as healthful and nutritious as that collected from the flowers. Perhaps some of you will be ready to hold up your hands in holy horror on the promulgation of this theory, and be ready to declare me as great a heretic as those who are by some believed to be who gave to the world the pollen theory, the trowel-sting theory and the sugar honey theory. I am content to be so considered if you can disprove the statement.

Understand me, by honey-dew I do not mean the vile stuff vulgarly denominated "bug juice." That is a different thing. When honey-dew is present it is frequently devoured in large quantities by the little insect you are all familiar with. The little "beastie" is a glutton of the worst kind, and devours a great deal more than it can assimilate. The excess is voided in the form of excreta. This is "bug juice" pure and simple, and not honey dew. We are often deprived of a good crop by the presence of these creatures, and the fact that their voidings co-mingle with what would otherwise be a pure, healthy article of food.

I thank you, ladies and gentlemen, for the attentive hearing you have accorded me while giving expression to the few crude remarks I have been able to offer in the short

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time allotted me. Before taking my seat I desire to thank Mr. Pringle, because it is to him, indirectly, I am indebted for what I know of the subject. It came about in this way. A few years ago, when he was President of this Association, he asked me to prepare a paper to be read at our then coming meeting, on the honey-producing plants of Ontario. In acceding to his request I was led to look into a branch of natural science from the study of which I have since derived much pleasure.

Mr. PRINGLE: I am exceedingly glad that I invited Mr. McKnight to prepare the paper to which he refers. I certainly have enjoyed Mr. McKnight's address very much, and I am sure the audience has. I think it is most unfortunate that Mr. McKnight has not received a thorough scientific education. I almost envy him his ability to get up off-hand and give an address on so complex a subject as he has done to night, and it is creditable to us to have such a man amongst us.

A vote of thanks was tendered to Mr. McKnight for his able address.

EXTRACTED HONEY.

Mr. R. F. HOLTERMANN: I was going to say a word in regard to a statement made here. A very full report is to go forth in regard to these proceedings, and therefore we should be careful to look into these matters in all their details, because beginners may take these as a guide. One says comb used for one season is not as good as foundation. We should be careful to point that out very carefully. Another says it makes no difference, which appears to me to be impossible. I would almost infer from one speaker that he would render his combs into wax and use foundation from year to year.

Mr. HALL: Let me say that the store comb should not be used in the brood chamber on any occasion. By not having any brood in them, the queen is not so liable to go up if she has a chance. I speak from personal experience and say you should not do so. Your extracting honey comb should be very much heavier than your brood comb. They should not be left there to be occupied by pollen. Never put drone comb into an extracting super. If you are good bee-keepers you will have very little drone comb in your brood nest. Any drone brood comb that you have will be polished just for the queen to use it. They don't know that she is a prisoner. You don't get the honey in them. If you have nice combs having cells three-eighths of an inch deeper than those in your brood combs, you will have less bee bread.

Mr. CORNEIL: What is your experience in regard to their coloring the honey?

Mr. HALL: I have comb fifteen years old. They are all right if your bees don't brood in them. They don't grow black and they should not be used for any other purpose than store combs.

Mr. CORNEIL: When they are, and become black, does that have any effect on the color of the honey?

Mr. McEvoy: Yes.

Mr. MYERS: No; I have experimented on that several times, and find that there is no difference in the color of the honey. There is, I think, just a little tendency, in the dark combs, to have the bees take a little pollen there.

Mr. McEvoy: Mr. Corneil put a very important question there as to the using of dark comb—was there any difference in honey from these and new, white comb? That can be very simply tested. You will find when they are washed out that there is no difference. First divide with a division board. On one side of that division board put old combs and on the other side put the new ones. Extract the honey and put it in jars, separately. You will find that what is from the new comb is clear and what is from the other is stained, but after they are used a few times you will notice but very little difference in the color; but there is a difference.

Mr. HALL: Another advantage of the combs that are not black—you may put them in the apiary and have no trouble with moths. They can get in if they wish, as spiders do.

Mr. DARLING: With regard to Mr. Corneil's question, I think perhaps what I have seen would throw a little light on the subject. I have tried for several years to take as white a honey as possible for our agricultural show, and I have never yet succeeded in getting as good a colored honey from comb used by brood, and for that reason I have allowed them to build comb enough. As some of these gentlemen say that it does not, then I would like to know in what way they can account for it. When one, two or three sets of larvæ have been raised they darken the comb. Let such combs lie over night outside in the rain; take them in in the morning and what do you get? Something nearly the color of tea. What becomes of that coloring matter when the honey goes in?

Mr. McEVoy: I used to pick for snow-white comb and let them build new comb. The older the comb the more the stain. Take, as I have suggested, and put in a division board and put one-half one side and the other half the other side; fill separate jars and that will convince you.

Mr. WELLS: If the comb is clean I don't think it makes any difference. As long as there is no bee-bread in it I think it is just as good as the white comb.

Mr. SHERRINGTON: I came to the conclusion some years ago that it does color the honey. I have extracted from combs that have been used and you could detect it in the flavor and color.

Mr. MYERS: If you take a comb out of the brood nest, or one that has been used in the brood nest lately, and put it up into your upper storey, and then extract out of that it will be darker. But you take a comb that has been used three or four times in the brood nest, and use that permanently, there won't be any difference. We know that the bees can put pollen into the cells, but you can take that honey out without the least stain of the pollen on the honey. Combs that have been used in the brood chamber for a certain length of time can be used as extracting combs without the least bit of injury.

Mr. HOLTERMANN: After hearing all that has been said, it appears to me that it would hardly be advisable to use these combs for extracting purposes. I have noticed just what Mr. Darling says in regard to the water.

Mr. PRINGLE: My experience is that the honey is not so good coming from old combs. It is more deteriorated in taste than in color.

Mr. PICKET: In regard to the colored water out of those combs. Is it not possible for those combs, after having been occupied for brood, that the cocoon left there by the larvæ and attached to the walls has more of less of the coloring matter. The oftener these combs are used the less coloring matter there will be left in them, as it has been taken out by the honey.

Mr. HOLTERMANN: Do the combs become lighter?

Mr. PICKET: No; not lighter in color.

Mr. CORNEIL: Mr. Darling's point is, I think, a good one. The coloring that the water takes from the comb can be very largely accounted for on the theory given by the President, Mr. Picket. If Mr. McEvoy's remark is true, and others that have been made, that the comb after being used for a few times has the coloring matter removed, why not wash them out? It may seem a difficult undertaking, but there is a way of filling the cells with water without letting air in. Combs can be washed if washing is good. I have had the theory all along that the old combs are as good as others. I have a lot of dark comb and a lot of drone comb. I like drone comb better for the supers. It is far easier throwing the honey out of them.

Mr. HALL: Too much of a temptation for the queen to go up there. I like the drone comb. I have some very dark ones.

Mr. ALPAUGH: The water will spoil the combs in a very short time. It will rot the wax. I soak mine about forty-eight hours to get the bee-bread out of them. With regard

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to filling combs, if anybody wishes to do it, you can set your combs on an angle and put the water in with a dipper. The water only hurts the comb if left in too long. In regard to drone comb being used, it is all right at swarming fever. Use them on swarms and you are all right. They don't want to use them for raising drones. I have hundreds of them and use them before swarming time. With regard to the queen being attracted above, the bees want her to go up and they tease her. I have watched them, and the bees torture her. Where you use queen-bars the queens do not live so long, unless you take pains to give lots of room below. The bees torture the queen to death. They are anxious that she should go on. They will make room for her; they are dissatisfied and will nibble at her and fret her. For all that I use the queen-bars.

Mr. HALL: Through the honey flow I have had them fill up the combs that were not drone, and the patches of drone comb have been dry. Take the temptation away. Somebody here says that no practical bee-man will have much drone comb in their hives. I have a lot.

Mr. ACHES: About using these combs. I have used drone comb for twenty years. You must use an excluder, though, or the queen will go up. I would not advise you to throw away drone comb. I use it right along for extracting purposes.

WEDNESDAY MORNING SESSION.

HOW TO MAKE BEE-KEEPING IN CANADA MORE PROFITABLE.

The following paper was read by Mr. R. F. HOLTERMANN, of Brantford: Greater exercise of intelligence, greater application and greater thought applied to any calling makes it more remunerative and more profitable. In treating this subject, however, it is not my intention to deal directly with that phase of the question. The successful production of any agricultural product depends upon that which lies within the power of man, and that which is bestowed by a Divine Providence. After the recent triumphs of our bee-keepers at the World's Columbian Exposition, and after the distinction which we have always won when our honey had entered into competition with the world, I need not do any more than remind Canadians that Providence has richly endowed our land with the best climate, soil and flora under which the choicest honey can be produced in paying quantities. No Canadian will wish to dispute this: none other dare deny it. Those engaged in agricultural pursuits can primarily increase the profits of their calling by decreasing the cost of production and improving the quality of their products, making them more desirable in the markets of the world. To decrease the cost of producing honey we must adopt the best known methods, and then look for still better. There is no doubt that by better methods in preparation for winter and better wintering, an immense gain can be made. At present too often queenless and enfeebled colonies are wintered. The apiary should be carefully examined, and anything of a doubtful nature in this respect destroyed. Next, instead of guessing that bees have enough for winter, and finding out when too late that they have insufficient stores, they must be examined and weighed as soon as the combs are fairly free from brood. This is generally about October 1st. Any one not able to do this should not keep bees. The capital being the same, and without much increase in labor, by proper preparation for winter and care during that season, colonies will come out of winter quarters as strong as many now are when clover blossom opens, and therefore we would be able to get in an average season fully 50 per cent. more honey from our apiary.

Again, whilst the entire prevention of swarming will probably never take place, by means of room given in the hive at the proper time, shading during the middle of hot summer days, and proper ventilation, excessive swarming can be prevented, and the novice will get honey instead of an increase which too often is not in a condition to winter. The majority of bee-keepers use only one super for comb and extracted honey. This is the falsest of economy. I would sooner have less hives and more supers on them. Bee-keepers could well turn their attention more in the direction of desirable strains of bees.

More attention paid to results and less to the color of the bee would be a step in the right direction. Where would our milking and beefing breeds be unless practical utility had been kept in view in breeding? The quality of honey can be improved in various ways. In comb honey a clean section, free from travel stain, well filled, of even surface and not weighing more than 14 or 15 ounces, is desirable. A clean section can be obtained by having ventilation only from the bottom or entrance of the hive, having clean hives, and by keeping the bees close to the swarming impulse, and removing sections as soon as the harvest is over, using either a wood cover on top with $\frac{1}{4}$ inch bee space between it and the sections, or a quilt with a cushion or heavy lid to prevent the bees from raising the cushion. I prefer, however, to be free from a quilt. Even surfaced sections and sections not too heavy can be secured by means of separators and a section $4\frac{1}{4} \times 4\frac{1}{4}$, seven to the foot, or less. The day has gone by for making comb honey without separators, as it has gone by for a section any wider than above mentioned. In extracted honey we must be careful not to allow dark and light colored honey to mix. The practice of extracting honey before it is properly ripe would injure the development of our markets very much. To talk about ripening honey after taking it from the hive is impractical and visionary, and to take honey unripe and advocate such a practice only leads to having it placed upon the market unripe and stopping its consumption in many homes to which it is taken, and thus doing a great injury to bee-keepers. A well-ripened honey is a food which has already undergone the first stages towards digestion; it has also in it essential oils distilled by flowers, and whatever its source in Canada may be, it has virtues which unripe honey or other sweets can never imitate. We have all the difficulties to contend with that those engaged in other branches of agriculture have, and yet all other branches have for assistance men specially engaged in discovering the hidden secrets in their calling, making investigations which shall enable those engaged in that calling to produce better articles for less money, and to do battle with the difficulties which crop up owing to the times we live in. But not so with apiculture. Let the bee-keepers of the province and of our Dominion make their voices heard in this respect. Bee keepers are a peculiar people, and their is a peculiar calling. The wheat grower, the producer of almost every other crop upon the Canadian farm, is at least free from the suspicion of adulteration, but the bee-keeper, be their produce as free from adulteration as it is in Canada, has to contend with public opinion, which is ever ready, through ignorance and evil thought, to suspect wrong. We have had to fight this in the past, and have been able to do it with some degree of comfort, but recently this has become a more difficult task. Difficult, because those calling themselves bee-keepers have suggested methods of adulteration which did not even suggest themselves to the honey consumer. The method of adulteration has assumed first one guise and then another; at one time to fill unfinished sections; again to give a product to be called that untruthful name "sugar honey;" again its use is suggested to keep extracted honey from granulating when fed back; but the trail of the serpent is over it all, and if we make compromise with principle you may be sure we will suffer as bee-keepers. There is but one course—the honest, uncompromising bee-keeper must show himself to the public as in no way countenancing such a fraud. To him such a suggestion must be a crime against morality. He must show that in no way he will support such an idea or support a man, be he king or peasant, who has lost all sense of right to such an extent as to refuse to see the evil of such a suggestion. Failing this, he must have the stigma rest upon him; that is, he openly supports or secretly winks at and supports adulteration, and, as soon as Canadian bee-keepers do this they must say good-bye not only to an enlarged home market but a large proportion of the market they now have, and they must also say good-bye to the foreign market within their reach. There are only two paths—the honorable and upright, yet uncompromising, the one which will lead our bee-keepers and our nation still higher in the moral scale, or the reverse. Our markets are peculiarly interesting to bee-keepers. Anything influencing them for weal or woe must increase or diminish the profits to be derived from the apiary. It will not be wise to here mention the lowest figure at which first-class honey has changed hands during the last few years, but I am safe in saying that there are numbers of bee-keepers who would be willing to sell their crop in bulk, free of all expense, at 6 cents per pound cash. 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calling, competition must reduce the price. Yet, aside from this, the uncertainty of a market has tended to depreciate the value of honey in Canada. Those selling have been beaten down in price, often through misrepresentation as to what others were selling at. If there was a standing offer of six cents per pound net for our surplus honey it would be a great relief to our country. Before touching upon foreign markets let me say that I feel that our home market is not developed as it could be by united effort on our part to produce a well ripened honey, and bringing honey more prominently before the public. I could not help thinking, when Prof. Robertson was delivering a lecture upon the value of cheese and butter as a food, how much good could be done for bee-keepers by placing the value of honey as a food before the public. Could we not do good by uniting more in bringing this matter before our country? Next, we allow too small a margin to the retailer. Ten cents per pound is not too much for honey; in fact the price is low. If any cutting has to be done let us allow the retailer more; this will be a step in the right direction. I have, during the past year, paid special attention to the foreign markets. Dr. Montague, M.P. for Haldimand, finds the imports of honey to Great Britain about ten million pounds per year. We, during 1892, exported to Great Britain only 10,860 pounds, and less than 17,000 pounds to all countries, and imported 28,699 pounds. This latter was brought in at British Columbia. After urging the Government to do something to assist bee-keepers in opening a foreign market, and reminding them that Ontario contained over 10,000 bee-keepers, they secured for me particulars in connection with the British market, and I have a promise that if the Experimental Dairy products are again shipped to Europe, a trial shipment under Government auspices will also be made of Canadian honey. Also that when Prof. Robertson goes to Europe he will not only endeavor to secure an opening for our honey, but draw attention throughout Britain to Canadian honey. Also the Government are going to see what they can do with our honey in Germany. In recent correspondence with the Department of Trade and Commerce, they gave the prices realized on honey from various countries. There are also the names of firms, no doubt of the highest standing. They are herewith appended, and should any of you feel inclined in the meantime to enter into correspondence with them direct, you can do so. I know of a number of small shipments of Canadian honey this season netting seven cents per pound. Buckwheat honey sells there to good advantage, netting nearly seven cents per pound. Messrs. O. A. Slater & Co., of 19 Old Hall St., Liverpool, England, wish to correspond with those having Canadian honey. Messrs. Cross & Blackwell, (Ltd.) of Soho Square, London, England, say, "We have no knowledge of the value of honey from Canada. There is considerable demand in this country for pure honey which comes from France, Italy, South America and the West Indies. It varies in price according to color and flavor from 28 to 68 per cwt. That is 6 cents to 11½ cents per pound." The High Commissioner, London, England, says, "I also communicated with several other firms with the object of obtaining further and more detailed information, and to a large extent was unsuccessful." Owing to Canadian honey not being known on that market, no sufficient quantity having been sent there apparently to create for it a distinctive name. Messrs. Wurzburg & Co., of 4 Fenchurch Building, E.C. London, England, write, "In reply to your enquiry as regards honey, we beg to say that there is always a certain sale for honey in this market and at Liverpool, but a ready sale depends very much on the quantities on the spot and on the quality of the lots offering. At the present moment a consignment of 300 cases containing each two cans of 56 lb. could be disposed of at about 7½ cents per pound. The price varies very much, not only according to the quality of the honey but according to the fluctuations of market, from six and three-quarters to nine and three-quarters per pound. We receive consignments here from New Zealand, Australia, Chili and California, the latter being the most appreciated on account of its finer flavor. White honey or very light amber honey is always preferred to amber or dark amber. The best way to consign is in cases containing two cans of 56 lb. each, making one cwt. net. We are handling consignments ourselves, and will be very glad to communicate with your friends direct. Cans must be carefully soldered and put in strong boxes, otherwise there is leakage, which involves heavy loss. Sometimes we receive consignments of honey in cans containing 48 one-pound tins (about the size of condensed milk cans) but these are difficult to sell."

Messrs. H. & T. Walker, of 41 Eastcheap E.C., London, England, say there is always a certain demand for honey in Great Britain. It comes principally from Chili, Australia, California, France. Chilian and Australian ranges from $5\frac{1}{2}$ to 6 cents; for California, $6\frac{1}{2}$ to $6\frac{3}{4}$ cents. Honey from Narbonne has lately brought 9 cents to 12 cents. This latter honey is packed in 56 pound tins. This firm charges two per cent. commission. Messrs. Walker do not desire small packages. Messrs. Hodder & Co., Bristol, England, buy Chilian and Californian honey in kegs at $7\frac{1}{2}$. Messrs. Gedye & Son, Bristol, England, deal in California honey. Price depends on quality, varying from 7 to 15 cents per pound. Messrs. Warren, wholesale druggists, Bristol, England, also purchase honey in barrels. The stated prices vary "enormously," according to quality and color. They advised addressing editor of the *Public Ledger*, 8 St. Dustain's Passage, Great Tower, St., London, for more information. In closing, the letter from the High Commissioner's office states: "My impression is that this honey question is an important one, and that a good trade may be done in the article." Again the High Commissioner refers to adulterated honey which comes to the European markets, and specially mentions that honey from parts of the United States has been sent adulterated, and it still has more or less suspicion, resting upon it. It is extremely important that our product shall have a reputation for purity.

We produce honey the choicest, and the present indications certainly go to show that our honey, when it has won a place and reputation in the European markets, will net us 7 cents per pound. It is therefore a question of the deepest importance to our bee-keepers and to our country. Our markets at home and abroad, closer attention to details, greater perfection in production, are important factors in increasing the profits from bee-keeping.

Mr. D. CHALMERS: There is one point in the paper that I do not quite agree with, and that is in regard to taking honey from the bees before it is ripe. I suppose we may understand Mr. Holtermann to say that the honey must be capped over. I do not advise anything different, but I contend that we can ripen honey under all circumstances when bees can. If we have a flow of honey, and should strike a cold spell and the bees not be able to keep that honey warm, it will naturally thin. With that honey under our care we could put it in a warm room and ripen it. The capping of honey is no proof that that honey is ripe. I contend that uncapped honey is just as liable to be ripe as capped honey. Capped honey in the hands of an inexperienced person can be spoiled, while uncapped, in the hands of an experienced person can be ripened. I have honey now in my possession that would compare favorably with any ripened by the bees. I took these sections when the honey flow stopped and placed them in a room, and it ripened right along, and to-day it is in splendid shape, and, as far as flavor is concerned, it is good. If my word goes for anything, the honey that I showed at Chicago and was successful with was mostly uncapped honey. I took it from the bees and placed it in a room and ripened it.

Mr. HOLTERMANN: In what state was it? Was it ready to cap?

Mr. CHALMERS: There was very little capped at the top of the comb. Bees only cap honey because they have no room for a deeper cell. Honey is ripe when it is capped, but I contend that uncapped is just as ripe as capped. In referring to this success at Chicago, we all take Mr. Pringle as an authority, and, as near as I can remember, in his report he said that a certain individual in sampling this honey that I showed, pronounced it the best flavored honey he had ever tasted.

Mr. PETTIT: Were the cells full and did they seem to shine when you raised it up? I refer to this honey that you sent to the exposition.

Mr. CHALMERS: The honey was all shining, but I could not say whether the cells were full or not. The honey is concave in the cells. There is a certain part of the cell at the mouth that must be empty.

Mr. PETTIT: There is a time always when those cells are as full as the bees fill them?

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Mr. CHALMERS: I answer in this way. I won't believe that bees cap honey unless there is something that touches their backs and compels them to it. They certainly would have added as long as they had room.

Mr. PETTIT: Would they have added any more to the filling of the cells, or would the very next thing be to cap them?

Mr. CHALMERS: By the lower part of the comb there was no appearance that the bees had any intention of capping.

Mr. McEVOY: He showed me this honey sent to Chicago. It was thistle, and it was just about the finest thistle honey I ever saw. That honey, although it was not sealed, was ripe. What I tasted was ripe. It might have been filled just ready to seal. From the flavor that honey was ripe. Mr. Chalmers had a cake there. That honey, in his particular case, was pretty nearly perfect. I am an advocate for capping as a general practice. Honey, as a rule, when unsealed, has never that heavy, smooth, fine flavor.

Mr. HALL: I can answer Mr. Pettit's question. We had a ten days' flow of honey, and any honey that was in those combs was ripe. We all know what can be done in ten days. It came in from the field ripe.

Mr. CORNEIL: I want to say in the first place that the nectar in the flowers is not always of the same density. To show how thick it is sometimes, in 1883, the year in which we had such a long continued honey flow, we extracted our hives each alternate day. We commenced in the morning, and we went around the yard in the same direction, so that we came to each hive about the same hour at each extracting. We got large yields, as often as that. I had one hive that put up 37 pounds in 48 hours. There was not a capped cell in the whole super. I took a jar of that honey and cooled it down to 60° to make a test. It was then fit to put on the market. That honey ran between 13½ and 14 pounds to the gallon. There was no capping about it. It is not necessary to allow honey to become capped in order to ripen it. The writer of the paper condemns ripening honey artificially. It is being done. Some of the very best honey on the market is ripened in this way. I ripen my honey in three large tanks. This year I have already sold somewhere about 5,000 pounds, and I have been enquiring as to what prices some of the gentlemen here are getting for their honey. So far as I can find out, I have sold at as good a price on the average as others here present. That is how artificially ripened honey sells in competition with other honey. All capped honey is not of the same density. Bees will cap honey sometimes thinner than it is capped at other times. You can't depend upon having honey at a standard density by having it simply capped.

Mr. HOLTERMANN: I can agree with every statement that has been made since I took my seat, with the exception of one, that is this: It is injurious to advocate taking honey unripe and afterwards evaporating it. There may be a few individuals who ripen their honey afterwards. They are few, and I would like Mr. Corneil to give us a few names of those who are doing that, and we can give names of a great many who are injuring themselves and our market by putting the honey upon the market not sufficiently ripe. Now, in reference to the statement that all honey capped varies in its specific gravity. Under the conditions generally found, the honey which is not capped is of a lighter gravity, and is not as good a product as that which is. We injure ourselves by putting on the market a product which is not ripe. When this unripe honey goes upon the table of the consumer and he does not like it, we lose our market.

Mr. ACHES: I agree with Mr. Holtermann. I heard a good deal about this in 1881, when Mr. Jones advocated this process. Mr. Jones, it appears to me, did not make a success of the business. Mr. Chalmers, was yours wholly artificially ripened or naturally ripened?

Mr. CHALMERS: Partly artificially.

Mr. ACHES: Is it profitable? Do you advocate it? It may be done, but only one out of twenty are successful.

Mr. CHALMERS: No; I don't think the Convention thinks I advocate it.

Mr. ACHES : Mr. Cornell made the remark that he had sold about 4,000 pounds and got a good price. I sold a lot, too. I have a few left. It went to the Northwest, and I realized eleven cents for that. The commission man took it right from me at eight cents for the extracted.

Mr. HOLTERMANN : There is one thing to be remembered. I will go so far as to admit this, that it is better to sell the honey well ripened artificially than to put it upon the market unripe. There are some men who put this thin honey on the market. They are trampling on the toes of men who have riper. The idea we wish to go forth is that it is desirable to have well ripened honey on the market.

Mr. PRINGLE : There is very little difference of opinion on this question. I think we all admit that it is unwise to put unripe honey on the market ; whether it has been capped or not, that is not it. We also admit, I think, that honey that is capped is not necessarily ripe. I have opened some honey that has been capped for some time and found 't much thinner than honey that has been extracted before it was ripe at all. None of you will deny that, so that I agree with nearly all that is in the paper ; but when Mr. Holtermann makes the remark in his paper that the idea that honey can be ripened artificially is imaginary and unworthy of attention, I am not surprised that anyone should object to that. We can ripen honey artificially. We can extract honey before it is capped, and have a first-class article.

Mr. PETTIT : The question I wish to ask is this : Is the discussion we are now having going to be reported ? If it is we expect it to be educating. Do you wish it to go out that we are quite willing that bee keepers, as a rule, should ripen honey artificially, but under existing circumstances wait until the honey was capped ?

Mr. PRINGLE : I certainly advise all to let their honey be capped before it is extracted. It would be a great evil to the honey industry in Canada for bee-men to extract generally until the honey was capped. I do not advocate honey being extracted until it is capped. The thing is possible to ripen it artificially and have a first-class article.

Mr. ACHES : They will gather from this that they can get twice the amount of honey by extracting it before it is ripe. Honey will go down. It is less trouble to do that.

Mr. MCKNIGHT : It is a question that affects the bee-keeping industry to a considerable degree. I have practised what is known as artificially ripening honey when I deemed that was necessary ; when I wished to bring my product up to a standard that I thought should be attained. Mr. Holtermann makes the broad statement that he believes that the artificial ripening of honey has a tendency to injure its quality. That is a broad statement, but it is also a bald one. If Mr. Holtermann would instruct us how honey was deteriorated, it would be worth recording. I believe that the process of bringing up a lower grade of honey to the standard degree of excellence is right. It injures it no more than if it were left in the hive until it was ripened.

Mr. CORNELL : I believe that all agree that it is not proper to put unripe honey on the market. The question on which we do not agree is as to how we are to get it ripened. Mr. Holtermann advocated having it all ripe. Then the sentiment of the Convention is, that to get it all ripe we must get it all sealed. If we could educate small bee-keepers to do that, I would be content. The honey would be better fitted for the market. Take a farmer. He finds the supers all getting pretty full. He extracts the honey ripe or unripe, when he can find time. All the combs will be unsealed, or a piece around the top will be sealed. The lately gathered honey will be around the bottom, and there will be a lot of raw nectar. That is extracted and thrown all together. There is a lot of fermented honey that is put on the market that I think becomes fermented just in this way. If we take the other course and try to educate the people to put it in some open vessel, I believe the general result would be better than to try to induce everyone to leave the combs until they are all capped.

Mr. ACHES : Would not that be injurious ?

Mr. CORNELL : No.

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Mr. ACHES : When is it ripe ?

Mr. PRINGLE : Mr. Holtermann does not say that it ought to be extracted when it is capped, but when it is ripe. If the expert does not know when it is ripe, how are we to expect the amateur to know ?

Mr. McEVOY : When it is thin it is not ripe. Leave it and extract about twice in the season. What is not sealed will be ripened by the long heat of the summer.

Mr. HALL : It is true very often that capped honey is not ripe, but I would say, don't extract your honey until it is capped.

Mr. CHALMERS : I do not wish it to be understood that I advocate taking honey from the bees before it is ripe. I simply stated that, under certain circumstances, we can ripen honey artificially better than the bees can ripen it.

Mr. HALL : That is a dangerous thing to say.

Mr. CHALMERS : Another point we can make is this. In Mr. Smith's paper yesterday he stated that there was a vacancy between the clover and linden flow. The clover with us runs right into the linden. I have a heavy flow of clover at the time the linden opens. If you want to get a distinct flavor of basswood for extracted honey, you can remove your honey at the time this particular flow starts. You can remove your supers.

Mr. PETTIT : I quite understand Mr. Pringle's position, but I was afraid the Association did not. I fully endorse the idea of letting it be capped. We will never suffer from taking that course. There is another thing. The impression has gone out from what has been said here, that you are going to get a lot more honey by throwing your honey out green. That is a mistake. If you have the necessary implements and if the bee keeper has the necessary combs, tier up. If you give the bees plenty of room, there are bees inside who do the capping, who do not go to the field as a rule, and these bees can just as well be employed capping as doing nothing. Bees are very much like human beings. They cannot be satisfied. There is not a millionaire on the face of the earth that is satisfied. If you give bees a ton of honey, they want another ton. The safest thing this Association can do, under the circumstances, is to say to every body to let the bees cap. We never claim that our linden honey is pure linden honey. We only say that it is sufficiently so to give it a distinct flavor. When the linden flow begins, take all the clover honey that is ready to go away, and if there is some that is not ready to go away, just let it go with the linden. You are perfectly justified in saying it is linden honey. You do not claim that it is wholly linden. If you act on this idea of clearing out your supers every time, you must have green honey. Unfortunately the great majority of mankind is not careful.

Mr. CHALMERS : You say that you want your honey all capped, but how are you going to get it all capped, should the honey flow cease ?

Mr. PETTIT : I admit such a time comes at the close of the flow, and, as a rule, just when the flow ceases the bees cease. There are a few bees who go on and work, but the great majority quit. If the weather is warm and dry, just leave it a little while and it will come out thick enough, and it will be just as safe with the bees as anywhere.

Mr. CORNELL : It is not true that the bee-keeper who ripens it artificially will have more honey to sell, because in the artificial ripening he evaporates the water.

Mr. WELLS : I think it is a wrong idea to teach people to extract honey before it is ripe. I have seen extracted honey at the Toronto Fair that was sour. I have known men to follow that teaching, and they had sour honey. It is a bad practice to advocate taking it out before it is ripe.

Mr. DARLING : About ten miles from my place was a man who kept quite a number of bees and shipped his honey to Montreal. He came to me one time saying he had honey in Montreal that he could not get rid of. I said, "What is the trouble?" He said, "I don't know." I said, "What will you take for it?" He said, "Whatever it is worth." I said, "I will give you six cents for your honey, freight paid, if you will send it down." I was to pay the freight and deduct it from the price. That honey came to me in kegs. It was fermented. To get that honey out of the keg I had to take the

head off. The inside of that honey was granulated and the rest was a thin, sour liquid. I made up my mind he had extracted it green. He is not keeping bees or selling honey now. A brother of his came to my place and he had a sample of honey with him that was very white and clear and tasted finely of the clover, and, although the honey was thin, I bought and sold it again to some parties who wanted honey. They told me afterwards they preferred the dark honey to it, as it had a rather sharp flavor. I could not sell it, so mixed it with my own. I didn't know what was the matter with the honey, but I was told afterwards that he extracted his honey every three days. He took his honey too green. It was not ripe. I tiered up my hives last season and did not extract the honey until the end of the fall. When I extracted it at 70° it weighed over 14½ pounds to the gallon. Those who extract their honey before it is ripe, ruin the market for those who put a good article there.

Mr. MYERS: Let every bee-keeper in the land see that his honey is ripe before he puts it on the market. I agree with Mr. Holtermann in regard to capping the honey. I would like just here to move a vote of thanks to Mr. Holtermann for his very excellent paper. Seconded by Mr. Aches and carried.

Mr. HOLTERMANN: The discussion has gone on in a very nice spirit. I said in my address that I thought it was impractical and visionary to talk about ripening honey after taking it from the hive. Are the bees not the ones who can do it at the least expense? In reference to the combs, it is too common using only one extracting super. When the average bee-keeper uses more, we will have less of this putting of unripe honey on the market.

REPORTS OF AFFILIATED SOCIETIES.

Moved by Mr. MCKNIGHT and seconded by Mr. PRINGLE, that the reports of affiliated societies be taken as read, except where there is reason to believe that they have not adhered strictly to the regulations. Carried.

NEW BUSINESS.

Mr. CORNELL suggests that the time for affiliated associations joining be extended for a month.

Mr. HALL moves that the time for affiliated associations joining be extended from the 1st of May to the 1st of June.

Mr. SHERRINGTON: I think the 1st of May late enough.

Mr. MEYERS: I second Mr. Hall's motion. It is only in May that we get rightly pulled together, when we are pretty sure our bees are going to make us a return.

Mr. SHERRINGTON: If we left it till the spring we would never get a meeting at all.

Mr. BROWN: I consider that extending the time is injurious. If you give an inch you generally have to give a foot. Curtail the time, and say January 1st instead of June 1st. The most of the affiliated associations hold their meeting in November or December, consequently they are then ending up the year's business. Is not that the proper time to wind up the year's business, or at the beginning of the new year?

Mr. COUSE: I think it quite necessary to extend the time. Have it January 1st and you will find that none of the associations will join at all. You would find that 13 associations have not 65 members, consequently they could not affiliate before they had the members. There are a great many who do not join until May. A great many do not join until after the circulars are sent out. Previous to that they have not got the members. I do not think you can do it earlier than that.

Mr. CORNELL: If I were president of a local association I would say we had better not affiliate so early, because if we don't get a grant we will be \$5 out of pocket.

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Mr. Pr tion of The to some of t very readily number we patient hear upon the M We urged t a very large would add t it would ad point that w or any farm interest. N become a pr foreign mark when I was hope to get a Association t a terror to people and f the market b only to prod people were s so heavy tha penalties ratl There is no know it was you don't tas can do the sa where too. C been said and had such legi that point. Saunders. V to do so, and understand yo right up. Th

Mr. HOLTERMANN: There is one difficulty. There can be only one object in extending the time to the 1st of June. If we are going to be so much longer before we get the grant, there is going to be the trouble. Our local association was in debt right along until we got the grant. Could we not extend the time to the 1st of June to satisfy these, and get our money a little quicker than we have in the past?

Mr. EMIGH: You will get the grant as soon as the Government grant comes in. It won't make it any later. We write to the Secretary to send on the list.

Mr. MCKNIGHT: It strikes me that a question of a month can do no harm, and it it may do some good. It has been explained now that the date did not determine the time of getting the Government grant.

Moved by Mr. HALL, and seconded by Mr. MYERS, that the time for affiliated associations joining be extended from the 1st of May until the 1st of June; that the words of By-law number 12 be amended so as to read "1st June" instead of "1st May." Carried.

THE DELEGATION TO OTTAWA.

Mr. PETTIT reported as follows: We went to Ottawa as you are aware, under the direction of The Ontario Bee-Keepers' Association, as delegates. We made known our business to some of the members: Mr. Carpenter, Mr. Taylor and a number of others, and they very readily consented to come at once with us to see the Minister of Agriculture. A number went with us. We were introduced and received most cordially and given a patient hearing. We attempted, as best we could, after telling our business, to impress upon the Minister the necessity of this legislation. I can't begin to go over all we said. We urged the importance of bee-keeping, first, to the country. We urged that there was a very large quantity of a valuable product of nature going to waste, that if gathered, would add to the exports of the country and the comfort of the people. We argued that it would add to the wealth of the country, without displacing anything else. This was a point that we impressed particularly. If you undertake the production of horses, poultry or any farm product, it must of necessity remove something else to get room for the new interest. Not so with bee-keeping. It could be set down in almost any township and become a profitable business. We also advocated that it was necessary in order to get foreign markets that we produce a much larger quantity than we do now. I learned when I was in England that we must produce much more largely than we do now, if we hope to get a market. We attempted to show them that one of the very best things our Association thought well to do was to give us a pure honey bill; such a bill as would be a terror to evil doers. Such a bill would be what would give confidence to our own people and foreigners, knowing that Canada had made it impossible to put anything on the market but a pure article—would open their markets to our product. We ought not only to produce and put on the market a pure article in honey, but in everything. The people were anxious that we should, and that the law should be so severe and the penalty so heavy that it would be observed. The Minister agreed. He seemed to think the penalties rather high. Dairymen obtained a bill for the very same thing as we want. There is no butterine made, imported or sold in Canada. If that bill was given, and we know it was given, then why not ours? If you go to a hotel and sit down to eat a meal you don't taste the butter thinking it is something else. You take it as butter. If you can do the same with honey, you can realize how it would hold its sale at home and elsewhere too. Our people are suspicious of the purity of our honey, and many things have been said and written to make the people believe that the honey is not pure, and if we had such legislation as we ask for, it would remove that doubt. They did not concede that point. The Minister said, however, that he would refer the whole matter to Mr. Saunders. We had a personal talk with him. We thought it our right and our business to do so, and instruct him. If you go to Ottawa asking for a bridge or a canal, they understand you at once, but when you talk about bee-keeping you have to educate them right up. There is difficulty in getting this legislation that the butter-maker did not

have. Thousands of people all over the country may adulterate honey, but they can't adulterate butter, hence the necessity of having a law that has penalties attached. I have had more or less correspondence with the Minister of Agriculture, and the Government have all yielded the point to give us a pure honey bill. So that sugar honey is not to be allowed to be manufactured in the country. They have also admitted the penalties, and say that if these same penalties were granted dairymen we can see no reason for withholding them from bee-keepers. That place is just flooded with deputations. At first it seemed very up-hill work. We stayed there and stayed there, however. We said that we would stay there until next June, until finally they did seem to think there must be something in what we wanted. We stated that a great many of our best bee-keepers' industry would be destroyed if we did not get this legislation. They felt that they must give up their business and earn their living in some other way. When things seemed to go slow, I said "I will stir up the manufactures." I telegraphed to all the leading firms in Canada and I asked them if they thought it in their interests, to write to the Government. They did so. I saw so soon as these replies reached the Government and the members, there was a good deal more of yielding. That was a stroke of policy on our part. There is another way we reached these men, that is by talking to them personally. We went to see the Finance Minister and then we went to see the leader of the Opposition, Mr. Laurier. I informed Sir John Thompson that we did not want them to criticise the bill; we wanted them to assist. When we had a good point or a good many good points, we got them type-written and sent them to the members. We struck off some of the proposed bills and sent them to the members too. Now, we think that we are in a fair way to get the bill, but we have the opinion of members on both sides that the matter will need urging; will need watching and pushing. I am very thankful for the patient hearing, and am now prepared to answer any questions.

Mr. McKNIGHT: About all that is left to do is to tender our thanks to our delegates for the very able way in which they presented the matter to the Government. I think too that the reception they received—all things considered—reflects to our credit. I was opposed to it last year, and am still opposed to it. I prophesied at that time that they would not succeed and they did not. I would extend that prophecy and say that it will be some time before they get their bill passed in the form that they propose it, and if passed in any less stringent form, it will be no better than the laws we now have. I have very much pleasure in moving a vote of thanks.

Mr. HALL: Before that is settled I would like to ask Mr. Pettit a question. Did those gentlemen take any special interest in finding out, do you know, the extent of the production of honey in Canada?

Mr. PETTIT: I made an estimate and sent it to them by mail, and then we asked for the Government returns. The Government took up all those things. That particular part was not finished, but they hastily gave us an estimate of the production of the honey in Canada. The year was the worst we have known. We sent them another document afterwards to show them the reason why our estimate of the present year was greater than theirs. We showed them that increase of stock and the difference in the honey take would make the total considerably above that. They were very anxious to find out all the figures necessary.

Mr. HALL: I may say that I feel a very great interest in the delegation and am sorry that one of them is at home from sickness. I am very much pleased to receive such a report, and to see that these gentlemen have done what they were sent to do. I was under the impression that they would accomplish it. I have met one man. He is on the Opposition. He said, "The bill will pass, but you must watch it through." I join with Mr. McKnight in tendering our thanks to Mr. Darling, Mr. Frith, Mr. Pettit and those who volunteered, Mr. Brown and Mr. Holmes, to give them our hearty thanks for what they have accomplished. Carried.

Mr. HOLTERMANN: I saw Mr. Sutherland also at Oxford, and saw Dr. Montague, and so far as I can find out, there is not one bit of objection to this bill being carried through in the interest of our home and foreign markets. I would therefore move that

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this Committee be appointed to carry on this legislation, and take whatever steps they see fit to carry on this matter. Mr. McEvoy seconded the motion.

Mr. McKNIGHT: I regret very much that this matter has been introduced, for the reason that it is going to prolong the time taken by this meeting, and not profitably. I opposed the motion last year and gave what I thought good and substantial reasons for so doing. I regret its introduction, but I do not wish here and now to enter on the subject. I am quite sure the resolution will carry. Most of those who supported it last year are here and will support it again, therefore I only see defeat in trying to prevent it being passed.

Mr. HOLTERMANN: What are the funds of The Ontario Bee-Keepers' Association for?

Mr. McKNIGHT: Not to squander foolishly.

Mr. HOLTERMANN: In what way can we find a better way than to spend what money is necessary in the way we propose?

APICULTURE AT THE WORLD'S FAIR.

BY ALLEN PRINGLE, SELBY.

As I had the honor and responsibility of representing the bee-keepers of Ontario at the Columbian Exposition at Chicago the past season, I have deemed it a duty as well as a pleasure to be here on this occasion (at considerable inconvenience) to respond to the request of the worthy Secretary of this Association by giving some official account of my stewardship, and, at the same time, some account of bee culture in general as presented to the World's Fair.

Where there is so much to say or write, it is a difficult matter to get even the gist of things into a paper of suitable length for an occasion of this kind. While the magnitude of the greatest of expositions would have rendered, not days, or weeks, or months, but years necessary for an examination of its vast stores in detail, the Department of Apiculture, though comparatively not large, was, considered by itself, and considering its comparative youth as a science, very creditably represented by the apiarian world at the World's Fair. Twenty foreign countries, (including dependencies) and seventeen States and Territories of the American union made apiarian exhibits in Jackson Park. These were, Canada, Great Britain, Russia, Germany, Italy, Spain, Greece, Ceylon, the Ottoman Empire, Siam, Australia, Costa Rica, Trinidad, Hayti, Mexico, Brazil, Ecuador, the Argentine Republic, Venezuela and the seventeen American States. Of course some of these exhibited but a small quantity of honey and appliances. Among those which exhibited larger quantities were the States of New York and Illinois, the Province of Ontario, Great Britain, Ohio, Michigan and three or four other States. While the bulk of the world's apiarian exhibit was concentrated in the East Gallery of the Agricultural Building in Jackson Park, the balance was scattered through the various buildings, being for the most part in different sections of the Agricultural Building.

When I say that Ontario came out ahead of all competitors at that great World's Fair in the matter of honey, as well as in many other directions, I say what makes every Ontario apiarist proud of his province and of the science and skill he has brought to bear on his favorite pursuit. And when another fact (which everybody now knows) is stated, viz: That this same province, in nautical language, fairly "swabbed the deck" of the world in the matter of butter and cheese, especially the latter, nobody will venture after this to deny that Ontario is "in it" as a land "flowing with milk and honey," of the very best quality. And that is not all. Canadian wheat was also "in it" at Chicago. And here we have bread and cheese and bread and honey to offer the world—the staff of life as well as the sweetness and luxury of life.

The bread that gives life
 And the cheese that's alive,
 And the nectar distilled into honey,
 Will feed bairns and guid wife
 And make home a live hive,
 For gatherin' the siller ca'd money.

As you doubtless already know, Ontario took seventeen apiarian awards: Two provincial awards on the collective exhibit of extracted, and comb and extracted honey, and fifteen individual awards, as follows: The Gould, Shapley & Muir Co., Brantford, award on comb honey of 1892, award on comb honey of 1893, award on honey extractor, and award on brood foundation; R. McKnight, Owen Sound, award on linden extracted honey; J. B. Hall, Woodstock, award on clover comb honey of 1892, and award on clover comb honey of 1893; D. Chalmers, Poole, award on thistle extracted honey granulated; Abner Pickett, Nassagaweya, award on linden extracted honey; J. B. Aches, Poplar Hill, award on clover comb honey; A. E. Sherrington, Walkerton, award on linden extracted honey; J. Newton, Thamesford, award on clover comb honey; S. Corneil, Lindsay, award on clover comb honey; Geo. Wood, Monticello award on linden extracted honey; Geo. Harris & Son, Dunganon, award on clover extracted honey; Allen Pringle, Selby, representing the Province of Ontario, award on collective exhibit of extracted honey, and award on collective exhibit of comb and extracted honey.

This number of awards is more than twice as many as that taken by any State in the Union, or any other foreign country. In fact it is more than all other foreign awards combined. And that Ontario did not receive a still greater number of awards was not because we had not other individual exhibits of honey superior to foreign exhibits which received awards. I think no competent and impartial judge could examine some of those foreign exhibits of honey which received awards and compare them with some of ours which did not receive awards, without admitting that ours were greatly superior. This is no impeachment of the judge, who, I think was both competent and conscientious, and the jurors no doubt did what to them seemed right and proper. To make the matter plain, let us suppose, for instance, that here is a province or foreign state with, say, thirty honey exhibits recommended by the judge for awards; and here are also several other foreign states with one exhibit each or two recommended by the judge for awards, but marked no higher in points of merit by him than the lowest ones of the large number. The jurors, in dropping out some of these recommendations would quite naturally drop from the large number instead of the small ones, for in dropping from the small even one, they would be dropping all, so far as that particular country was concerned seeing that there was but the one recommendation for an award. Hence it is that while there were fifteen individual awards made to Ontario, there were at least a dozen more individual exhibits of honey of excellent quality in our collection and equally as good, to say the least, as other foreign exhibits which received awards. There was no honey at the Fair outside that from a few of the American States that was at all equal in quality to the Ontario honey, with the single exception of that from England and Scotland. The producers no doubt thought it was excellent, but you ought to taste it. Australia, during a honey season of about nine months, produces honey in such quantities and abundance as calculated to excite the envy of some of our western Ontario friends, who only enjoy a honey season of a few weeks' duration, but they need not be envious. What they do get from the linden and clover and thistle is worth eating when they get it; and, compared with the Eucalyptus and other gum honeys of Australia, the West Indies and other tropical countries, it is far away head of them all in color and appearance, as well as taste. I exchanged samples of honey to bring here for your inspection, with many of these foreign countries; but not without great difficulty on account of the confounded customs, for, technically, not even an ounce of this foreign honey "in bond" could be exchanged for another ounce till released from "bond." Some of the foreigners would venture an exchange of samples, while others, having the fear of Uncle Sam before their eyes, would hardly part with a grain or two for a taste. As for myself, I was fortunately relieved from this species of bondage the whole season, as I had in the spring succeeded with much trouble and many arguments in inducing Uncle Sam to accept the duty on twenty gallons of the honey, all of which had, of course, been entered and brought in for exhibition till the Fair was over and not for consumption. Concurrently with the release of the twenty gallons from "bond" was this deponent released from bondage, and he was thus free to sample, exchange samples, sweeten up friends and even enemies (and this is a wise thing to do sometimes) give away, sell, or do anything else with the nectar so long as he kept fairly and reasonably and conscientiously within the twenty gallons. Of

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course the twenty gallons would have a certain elasticity—legitimate enough—because to convert a lot of little jars, and bottles and tins of extracted honey, and sections of comb honey (perhaps leaking) to convert these into gallons, to a nicety, is something which no man, a little rusty in his mathematics, would, in dog days, attempt to do. Let no one infer from this that the Ontario Superintendent believes in or was trying to "cheat the devil." He believes in giving "the de'il" his due every time—especially when there is no way of getting out of it. If the Customs' Shylock failed to get the whole of his pound of flesh during the summer (because of the intense heat and lack of time on the part of his victims for irksome figuring) he got it all in the wind up as he generally does. And, by the way, this same gudgeon has an arithmetical method of his own for the conversion of pounds of honey into gallons, and especially section comb honey, which was positively appalling to the man who had a lot of honey from a lot of expectant exhibitors to sell, and who had to satisfy the aforesaid gudgeon to the utmost farthing before he could sell it. And if one could pay the duty and have done with it without such an interminable red-tape roundabout, it would not be so bad.

First you must make what in tariff technique is called an "entry." And to make an entry you must employ a "broker"—a customs' broker of course—and you must pay the broker, and pay him from three to five dollars every time, even though the article you are "entering" be worth only fifty cents. Then come numerous blanks and forms to be made out in duplicate, or triplicate, and you must swear and sign, (the other swearing is not done on paper as it might not look well in black and white), and sign and swear to this and that anent the article in "bond" which you are making an apparently hopeless attempt to get out of "bond." Finally, the entry for "consumption" is made, (and, mind you, whether the thing is a plow or a jug, or ten-penny nails, or a mushroom, or a cake of beeswax, it makes no sort of difference, they are one and all for "consumption.") This is stage No. 1. Then this entry (including, however, but the other kind of swearing, the other for a wonder they don't seem to get in bond), must be taken to an "appraiser," who takes his own time to get around to appraise the article in "bond." He appraises it, and in doing so if he thinks you have not appraised it quite high enough yourself, he comes to your assistance to raise it a little higher. This appraiser may know about as much of the particular article he is appraising as he does about Jove or the centre of the earth, but thinks that's nothing; what he doesn't know he guesses at, and never once guesses too low. That is stage No. 2. Then the papers must be taken to the "valuator" for his manipulation, which may cover a day, or two days or may be ten. That is stage No. 3. Then they must go to the "liquidator." What he does to them is a mystery too deep for me to make out, for he is not even yet ready for the "duty." However, he does something to them, or nothing as the case may be, and after he is finished his labors (?) on them, stage No. 4 would appear to be complete. Then the papers must come back to the "appraiser" or "broker" who makes them ready for the "collector," stating the amount of duty to be paid. But none of them will receive duty. That must be paid away up in the city, nearly ten miles off. Finally you find the man in the city who is ready for the money; you give it to him and he charges you twenty cents for taking it. This is a fact and no joke, and it is the only case of the kind I know of in the whole realm of commerce and finance where a man takes your money for nothing and charges you for taking it. The agony is at last over just as the proceedings are becoming curiously interesting; and one goes off with his ideas of political science badly rattled, and hardly knowing whether to laugh and start off for the "Midway Plaisance," or damn the whole business. He probably does both till his equilibrium is properly restored. He can then go and sell his goods if he wants to, after having paid the customs cormorants in some cases more than half the commercial value of the goods.

The last thing I put through this custom mill, with the above experience, was a honey extractor belonging to an exhibitor and which was to remain in Uncle Sam's dominions. Having been through twice before with one of the aforesaid "brokers" at my back each time, I determined this time to be my own "broker;" but before I got through the "broker" before you was strongly impressed that he probably had "a fool for his client." He got through, however, all right, but not without sweetening this official and that one with sundry bottles of honey, amounting to about half the broker's fee—thus saving the other half. Notwithstanding this saving, the customs' charges on that honey extrac-

tor were more than half what the article was commercially worth. You may get through that round with the customs in one week and it may take you off and on, two, or three or a month. In all I had three of these rounds to make in Jackson Park. One in the spring, clearing that dubious twenty gallons, another at the close of the Exposition, clearing the whole of the balance to be sold, and that last round with the honey extractor. The United States Government imposes a specific duty of twenty cents per gallon on imported honey; but what with their wine measure and their peculiar arithmetic in converting pounds into gallons and sections into gallons, they get from two to three cents a pound.

As to the prospects of that market for a portion of our coming surplus of honey in Ontario I think they would be excellent, were it not for the heavy duty. But as the so-called "Wilson Bill" proposes to reduce the duty on honey fifty per cent. the prospect, in the event of that being done, would certainly be bright. With all the duty, I succeeded as the exhibitors know, in netting them for their honey 7 to 8½ cents for extracted and 13 cents to 14 for comb. Free of duty, it would have netted them about 9 to 11 cents for extracted and 15 to 17 cents for comb, at least. And, as the next sale of Canadian honey in Chicago would be at an advance on this one, assuming a reduction of fifty per cent in the duty, and allowing for transportation thence, it would net in my opinion 9 to 10 for extracted and 15 to 16 for comb. But why should the next consignment sell at an advance on this? Because this has paved the way—this has created a market. Many buyers came back to me after more Canadian honey when I could not supply them, which, I am proud to say, stood higher in the market than the native product by its side, and brought a higher price. This is no reflection on the native exhibitors who surrounded me there, nor is it any disparagement of their honey. They had the prejudices of the consumers against them—though unjustly as against themselves, being mostly producers. While I was hampered by the duties, they were hampered by the prejudice against the home product on account of adulteration. My eyes were opened in the most disagreeable manner while in Chicago on the question of adulteration of honey. I knew there was but very little adulteration in this country, and I never dreamed there was so much there. Of course I can only speak of Chicago. It may not be so bad in the east or in other cities. There is a great deal of stuff called honey sold in Chicago, or offered for sale, so much that the people generally are very reluctant to buy extracted honey at all out of the shops. There is a general prejudice against the extracted honey, or the "strained honey" as they call it. And no wonder. Now, I do not for one moment say or suppose that the honey producers are the offenders or are altogether to blame for this. I think the cases where the producers themselves adulterate their extracted honey are very rare. But the people still appear to have pretty general confidence in the comb honey; and if American bee-keepers are wise they will endeavor to preserve that confidence by burying that "sugar-honey" project so promptly and deeply that it will know no resurrection.

You will thus see the great advantage we have and will have in the United States market, for not only extracted honey but comb honey, so long as we keep it pure and undefiled. I could take a hundred tons of Canadian honey to Chicago to-morrow and sell it readily at excellent prices to dealers as well as consumers; but, of course, mostly to consumers. In endeavoring to get the best possible prices for the exhibitors, the honey was disposed of in the best possible manner to advertise it. When I got through I had just got the way open for almost unlimited sales to consumers. When, at first I found the large dealers only offering me 6 to 7 cents for extracted honey, saying they could buy car loads for that, (and probably they could) I made up my mind that I would not sell to these big dealers. I went to the consumers and to the consumers I sold, with the exception of a few grocery stores, out of one of which towards the last, the Canadian honey went so fast that I could hardly keep it supplied. It was near my lodgings, and I used to take a load of honey to replenish the stock nearly every night on leaving Jackson Park. Many hundred of pounds did I carry out myself and deliver to save cartage and expressage, which was high enough there to make any man who was not afraid of work his own carter. The exhibitors get the benefit of this. And I took care that every customer who bought Ontario honey knew he was getting Ontario honey, and he generally came back for more Ontario honey. I tell you

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Ontario honey stood high in Chicago when I turned my back on Jackson Park. When people know they are getting a good and pure article, they buy freely and are willing to pay a good price. From what I have seen and heard during a six months' sojourn over there, I am satisfied that the adulteration of extracted honey is quite extensively practised after the honey leaves the hands of the producers; and the suspicion of adulteration among the people is widespread. The address of Prof. Wiley before the International Bee-keepers' Association, which met in Chicago in October last, was not calculated to allay the popular suspicion. This is the Prof. Wiley who is famous or infamous among American apiarists as the promulgator of that *wily* lie euphoniouly dubbed by him a "scientific pleasantry" that comb honey was manufactured clean through by machinery without the mediation of the bees at all. A dubious sort of truce has been patched up between the Professor and the bee-keepers on the other side, which, from certain signs at the Convention is not likely to last a great while. Prof. Wiley, who is, I believe, at present, Official Chemist in the Agricultural Department at Washington, gave the Convention some startling figures about the adulteration of extracted honey in the United States as the results of analyses made by him of many samples gathered from various quarters. The bee-keepers, however, do not accept these analyses as reliable, and they are not entirely without grounds for their incredulity. But there is enough and plenty of adulteration which is patent and obvious without the aid of science to unearth it or the dubious assistance of Prof. Wiley's laboratory to reveal it. And while American apiarists cannot be held responsible for the evil effects on the popular mind of Prof. Wiley's original slander on the comb honey (now dying out) they may be justly held responsible for whatever evil may accrue to them on account of their "sugar-honey" speculation or project, as it was apparently born and bred among themselves.

Our apiarian exhibit at the World's Fair cannot fail to enhance the standing and promote the future interests of apiculture in Ontario. Some five to six hundred weight of the choicest of the Chicago exhibit, both extracted and comb, was disposed of to the Dominion Government for the Antwerp Exposition, which opens in Belgium next May. As to our future markets for Canadian honey, I have but little faith in the availability of those that are trans-Atlantic or trans-Pacific. And, while we ought to improve every opportunity of seeking and entering these when we come to need them, I would strongly urge the cultivation and development of the home market and those nearest home. The consumption of honey in Canada appears to be increasing in about the same ratio as the increase of production, there being but little exported and very little to export. Let the production go on increasing as it may. It is safe to say that the consumption might be doubled and quadrupled and there still be abundant room in the home market. Manitoba and the North-west will consume large quantities; and I have my doubts about her capabilities of honey production within her own territory. The adjacent states cannot supply her as they cannot now supply themselves. Honey is as yet but little more than a luxury on Canadian tables. With nothing but the pure articles on our markets, at reasonable prices, it must become more or less a staple article of food. When there is a surplus for export the restrictions on our nearest foreign market will probably have been modified or altogether removed; and if I correctly interpret the trend of things apicultural over there, the United States will not be able to supply their own people with honey unless indeed they should have recourse to the wholesale development of the "sugar-honey" theory, and if they did, the product would not be honey and the people would not have it. It seems to be a fact that some of the best honey-producing States over the way are losing ground in their nectar-yielding capabilities, and losing materially. At Chicago I was surprised to hear from the representatives of those States, of failure here and failure there, and failure one year after another. Whatever the cause or causes—which I shall not here enter into—the fact is there; and my opinion is that there will be ample room in the mouths of this continent for all the honey this continent will (I shall not say can) provide. The question with us is has Ontario seen its best days in its honey-producing capabilities? However this may be, one theory is certain, the Ontario linden honey stands at the very head, and the linden tree is rapidly disappearing down the open and capacious maws of the pulp machines, the saw mills and the fallow fires. It is disappearing much faster than the uprising sprouts and saplings (spontaneous and cultivated) are taking

its place. The basswood tree ought to be planted and cultivated by every bee-keeper in Ontario, especially every farmer bee-keeper. If his circumstances require him to remove the basswood from his woodland, let him plant it around his domicile, along his fences and by the roadsides. Within a few years I have planted nearly a thousand, and shall not have to live long to see some of them yielding nectar for the honey-bee.

Mr. PETTIT: I arise to express my pleasure at hearing that excellent paper. It just reiterates what I told the Convention at Walkerton last year, that our best market was across the line, and that our best plan was to keep our hands clean, and our reputation unsullied. There is a prejudice, and a just prejudice, in favor of Canadian products, and one reason is that they have confidence in the purity of our produce. Make comparisons. While our cheese sold at 11 cents, United States cheese sold at 9½. A United States citizen commenting upon these things said, "One of the strong reasons why is that we make a spurious article that legislation upholds, and the people do not know, but they are being fooled. Since we do not know that we are getting a good article, we don't want to pay much for it."

Mr. McKNIGHT: I was in hopes that the last speaker would have added to his remarks a vote of thanks to the gentleman for the very able report he has made as a representative of the bee-keeping industry at the World's Fair. I am sure every one of you feel not only like giving him a vote of thanks, but you would like to see that vote embodied in a suitable form. I am quite incapable of expressing my feelings as to the way he has discharged his duties there. Everybody knows that when Mr. Pringle sits down to commit his thoughts to paper there are few who can do so more forcibly than he. I have much pleasure in moving that the best thanks of this Association be and are hereby tendered to Mr. Pringle not only for the very able report, but for the way in which he represented us at the World's Fair last year.

Mr. HALL: I rise to emphasize the remarks made by Mr. McKnight in reference to our representative at Jackson Park. I endorse his view of writing out a proper vote of thanks to the man who looked after not only our interests but the interest of our country. — Carried.

Mr. PRINGLE: I am sure I do not deserve the very kind and flattering expressions of opinion and feeling of which I am now the recipient. I simply tried to do my duty, and if I have succeeded in satisfying the bee-keepers in this, that is all the payment that I wish. I am sure I thank you for your very flattering reception of my services.

Mr. HOLTERMANN: There is a very important point touched upon by Mr. Pringle. I refer to the reduction in duty on honey, which is proposed. I would have mentioned this in *The Canadian Bee Journal* before but I thought it was in the interest of Canadian bee-keepers to say nothing about it until it has passed, over on the other side. Should the *Bee Journal* publish it at present, or is it in the interest of bee-keepers here to not to mention it yet?

Mr. PRINGLE: I have incorporated it in my report. If the meeting thinks it inadvisable to put that before the world, the committee can revise that.

Mr. HOLTERMANN: We would like to publish the report of Mr. Pringle, but would it be wise for us to now in the *Bee Journal* to say anything about it?

DISCUSSION RE COMMITTEE ON LEGISLATION.

On Mr. Holtermann's motion to re-appoint the Committee on Legislation the following discussion took place:

Mr. McKNIGHT: I am opposed to the motion, and I want briefly to give my reasons. I believe that the proposed bill is not in the interest of bee-keepers, for the reason that its provisions cannot be carried into effect, therefore I conclude that continued effort to secure what can be of no use to us is superfluous and the funds will be thrown to the winds. Since I was last on the floor, my thoughts have been turned somewhat in a different channel. I believe in the right of the majority to rule.

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I have also expressed the belief that the majority of those present are in favor of the bill, therefore, drawing the inference that McKnight, believing in the rule of the majority and believing that they believe their ideas are in the best interests of bee-keepers, why does he continue to set up his opinion? While I believe in the right of the majority to rule, I do not believe the majority is always right, and I believe in the right of the minority to use their influence to convert those who believe in it to their view. I will always believe in my right to an opinion while believing it to be well founded. That is what I am doing now. I say that the bill, if it becomes law, will be inoperative. It cannot be put into force, and the law enacted that cannot be carried into execution might just as well never be carried. Why do we say the bill cannot be enforced? Because of its provisions. The bill asks for legislation to prevent the importation of "sugar-honey." It is just here that I see where the law will be inoperative. How could the importation be prevented if it could not be discovered? It is not long since experts could not discover when the honey was adulterated; it can now be discovered without a doubt, but can every hundred weight of honey that might come across the border be subjected to that analysis? That bill, if it were law to-morrow, could not be enforced. It will be inoperative. The other conditions are superfluous. We have already all the protection asked for, and therefore to get that protection is no use. I use my influence to prevent money being spent uselessly. Save our funds and use them in ways that would be sure of a return. I have said that bee-keepers have all the protection that the law can afford them. If sugar honey is sold under the name of honey the seller is liable to the penalty of the law. If the law of this country does not afford you all the protection you ask for, I would like you to point me out the fact.

Mr. DARLING: I just want to make a remark or two in reference to the clause of the statute which Mr. McKnight has just read. He claims that that is all the protection we need. I claim it is not. There is not a man who has tried it as an experiment and advocated the putting of it on the market but what has said that it is sugar honey. Now take extracted vanilla. If you take the price list of that, you will find that it varies from \$12 to \$18 a gallon. What makes the difference in the price? Simply this, the best vanilla, sold at \$18 a gallon, is the pure vanilla. You can get, for less money, a small proportion of the vanilla bean mixed with a large proportion of some other bean. Where is the protection? They are all sold as vanilla. Why do they not prosecute those parties? I know we have men who smuggle other things besides sugar honey. The man who would smuggle sugar-honey would be liable to the penalty as for any other smuggled goods.

Mr. HOLTERMANN: There is perhaps no one who has advocated having legislation of this kind more than I have myself. In regard to detecting the adulteration of imported honey, if we have a country in which this is not allowed to be produced, there is no danger of importing from other countries. If this Food Bill covers this, why does that Act not cover the oleomargarine?

Mr. MCKNIGHT: That Act has been quoted several times. If the Act you propose went as far as that goes; if you excluded the importation of honey, adulterated or unadulterated, it would be all right; but you don't. Oleomargarine is not butter, and it is not called by that name.

Mr. HOLTERMANN: I do not think it is necessary to discuss it much further.

Mr. CORNEIL: The demand for this legislation arose at a small local association meeting in the County of Oxford. They sent a deputation to the annual convention of the Ontario Bee-keepers' Association last year to promote the procuring of legislation on this matter. That local association seems to have gone off at half cock. The subject had been discussed in one or two of the bee papers some months before. It has not been found to this day that the circumstances we are trying to legislate against have happened. We are not threatened with the ruining of our market by the production of sugar honey. Does any man know of the production of it since we met last year? It is time enough to cross the bridge when you come to it.

Mr. HOLTERMANN: I do.

Mr. CORNEIL: When the matter was brought to notice first in the bee papers it was assumed that there was more profit in it than in the production of honey where the raw material costs nothing. You pay six cents a pound for the sugar you feed your bees with. Six pounds of honey is the only return you get from ten pounds of sugar. Is it reasonable to suppose that such a business would be carried on? I think it will never come. Mr. Hutchinson is the best apicultural journalist in America. He has made the *Review* the best monthly bee paper published in the English language, but he has made some of the hugest mistakes in regard to bee culture. He is mistaken in regard to this sugar-honey, too. If this is likely to be produced and placed on our market, I want protection as badly as any of the rest of you. I will suffer if others do, but I have not the slightest fear of that, because it won't be produced. I contend then that it is unwise to ask legislation against what does not threaten us.

Mr. PETTIT: With regard to Mr. Corneil's statement that he gave Mr. Hutchinson the credit of being a very sharp man, so do I. Mr. Hutchinson experimented and gave the result in his journal. \$7.50 worth of sugar fed to the bees and converted into sugar-honey, sold for \$20. More than that, it was said that people did not attempt to push it off for what it is not. Yes, they do. Mr. Hutchinson did. He took it to the Exposition and put it on exhibition. They had a poor year. He took it there and he put it against his brother bee-keepers, and it took the prize. He pocketed the money. He sold it to his neighbors but did not tell them until afterwards. When the paper that has been circulated in Canada proves that these things can be done, and have been done, it is a dangerous thing to let it go any further. We should keep our hands clean; if we have a law that means a penalty of \$200 or \$300, or three months in jail, it will be a rod held over adulterators, and I say it is wise to get legislation. If a sample of this stuff should reach the British markets, it would close the market until the youngest man here was grey headed. An Englishman won't forget it. The American people allow their honey to reach the British markets through dirty channels, and I tell you the United States will suffer for that, and are suffering from it. The honey from the United States just stinks in the nostrils of the people of Great Britain because it reaches them in an adulterated condition. We want to do all we can to prevent ours from getting in that condition. The best test we can give is to ask for legislation ourselves. It would look bad for someone else to ask for legislation as they are doing on the other side. Let us do so ourselves so as to convince the people that we want to give them a pure article. To get and hold a market you must have the article. That is the first requisite. The article is within our reach. The next thing is to give the people what you represent it to be—pure. This is a crisis in the history of the bee-keepers of Canada.

Mr. McEVoy: I agree with Mr. Pringle although I am with Mr. Pettit to put down the sugar-honey fraud. I do think we need legislation on it. As far as the paying business is concerned—it will pay. If that stuff is manufactured and put on the market it will soon kill us. It will break down the market for comb honey. I have a letter from a man stating that there had been \$700 worth of sugar-honey sold in one place, and the firm who had manufactured the stuff was going to make 50 tons next year.

Mr. PRINGLE: If that is really the case, that \$700 worth of spurious honey has been sold in the city of Hamilton last fall, and that is known to any citizen of Ontario, instead of writing here or there about it, I hold that his duty is to go on and prosecute that man under the law, and I would ask why that has not been done.

Mr. McEVoy: I only had this letter. The agitation started by Hutchinson and seconded by Professor Cook has raised a hubbub.

Mr. HOLTERMANN: A question has been asked as to where this is practised. I think we have a right to fight a man fairly and squarely every time, and I think that if there is a man present if he knows of it, he should get up and say where it is. The honey was produced in Tilbury Centre. It is common report in that neighborhood. The man's neighbors have told me of it. It was carried on successfully and on a large scale. A portion of that was put on the Detroit market as a white honey before the clover season was on. The dealers said it was the finest honey they ever saw. They intend producing it next year if they get a chance. The reason I have not taken any action is that we

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feel we can get the legislation. You see the importance of such legislation? Our bee-keeping industry is jeopardized, and I do not see how any one can vote against it.

A MEMBER: After gathering the evidence we have heard to-day, I think it would be foolish to end it here. We are very near getting in at the next session. I don't think it would be wise to drop it now. If you think that less than three delegates would do, I would be favorable to that; but if not, send the same three again as they understand it now better than others would. I know the second time I go I am worth far more than I was at first.

Mr. BROWN: It would be an injustice to me as one who volunteered my services and went at my own expense in this cause to drop it, and it would be an injustice to me not to speak. In the face of the very able paper read by our worthy representative, I think it is very necessary that such an Act as we are asking should be passed. Personally, I know nothing about it. I have never seen it done, but I have no doubt it has been done and can be done, but I have no proofs to give. The remark that Mr. Corneil made just now, that it was time enough to cross the bridge when you came to it was all right, but on the other hand, you all know that it is too late to hit the dog after he has bitten you. Of course our friend Mr. McKnight is an able speaker, but I am surprised at the stand he has taken in the face of the paper Mr. Pringle has read. At the same time I heartily agree with him that every man has a right to use his own discretion. If he is opposed to this, why not fight tooth and nail against it just as we who believe in it will fight for it? We should endeavor to produce a pure article. Our honey is pure, as shown by our representative to Chicago, and the people there prefer our honey to their own; and for that reason I would strongly uphold legislation for a pure article.

Mr. PRINGLE: In view of what my friend here said, it is necessary for me to say something. I have taken no side yet. I have neither opposed it or sided with it. There are some questions that are so nearly balanced to the man who considers all sides of the question that it is really difficult for a man not governed by feeling or prejudice or reason, to decide. I have watched the course of things, but have taken no side, only to condemn the adulterated honey. Is it wise for this Association to ask legislation? We are all agreed that adulteration is an abomination, and that we ought to take all possible steps to put it down. To confess the truth, I am still undecided how to vote in this case, because I am endeavoring to act reasonably and justly and in the interests of this Association in whatever I may do. Is the asking of legislation necessary at the present time? I am not altogether convinced of it. After hearing of the manufacture of sugar honey in Canada and its being put on the market at the present time, I am not yet convinced. What ought to be done is this: These parties who have done this ought to be proceeded against at once and punished. If they are proceeded against and it is found that the law is not sufficient to stop it and stamp it out, I am with your heart and soul to go for a law that will stamp it out. The arguments used by Mr. Corneil and Mr. McKnight in regard to our ability to go on with this thing now, of course have a certain weight with me. We are a public body. We are using public money. We ought to put that money to the best use. I am not charging you with attempting to squander the public money. You are all sincere in your opinions that these steps are necessary now. Had I been at the annual meeting last year, and been called upon to take a position I certainly should have said, "not yet." You differ from me in opinion. I do not think the majority is always right, in fact I am generally in the minority. I am in doubt now which side I ought to take. I think I shall just let the matter take its course. I wish to stamp this out, as well as you do, and I want it done promptly and effectually. If we have not got a law that will do that now we must have one. Whether your law will prevent the importation of sugar honey I have my doubts. I have my doubts that when you get your law it will be successful in preventing the importation. The thing has really not been produced in the United States in my opinion. I have been over there for several months and I do not think the article is produced there yet.

Mr. HOLTERMANN: In respect to that question as to whether it has been produced in the United States or not, Professor Cook says it is being made in large quantities. Mr. Root says he does not believe Professor Cook's statement.

Mr. COUSE: One thing I would like to see is the stopping of the production of it. I do not know that our law would say that we could not sell it on the other side of the line. Have we the power to produce it here and sell it on the other side of the line?

Mr. PRINGLE: As I understand it, a man can be prosecuted for manufacturing it. It could be produced and sold as Canadian honey, and the consequence would be that we would be knocked right out.

Mr. BROWN: In your paper you say, Mr. Pringle, that the American consumer prefers our honey. I would like to ask why the people prefer our honey to the American honey?

Mr. PRINGLE: I said that the prejudice in the minds of the American consumers was against the extracted honey, but they still had pretty good faith in comb honey. I, at the same time, said that I hoped the American bee-keepers' would still preserve that confidence in their comb honey and would bury the sugar honey question.

Mr. PETTIT: I don't think we ought to stick at a few cents in obtaining a law that promises such good results. If it would be creditable to the Association I would go without any money.

Mr. PRINGLE: Is there not a danger of approaching the Government for legislation without necessity? Did they not say to you, "Have you not a law to punish the offenders?"

Mr. PETTIT: No; they never said anything of the kind. They wanted us to tack on a bill that those who produced it should label it. That would only make it legal and respectable; and then as to the penalties, I said we wanted to form a law that meant something.

Mr. PRINGLE: Is there anyone in the audience who can tell what the penalties are for selling adulterated honey?

Mr. HALL: Mr. McKnight says we have a law to prevent adulteration. Let me inform you that England is against adulteration. I sold coffee for fourteen years in that country. You could buy that coffee pure, and you could get it mixed with chicory, but it must be labelled in that way. We spoke of the oleomargarine. That is prohibited from manufacture, importation or sale, but you can sell it. You can sell it by mixing it with butter, and you will have to be a pretty sharp man to detect it. I glory in a minority. We started in a minority in foul brood. We started in an insignificant town the spraying of plum fruit trees, and we got a law that is effectual. The Government thus far has given us every encouragement in this. They don't pooh-pooh the idea. Mr. Pringle in his paper spoke about the views the United States citizens had of our honey. I was delighted to hear it. They have confidence in us, and should we permit, through our negligence, a loss of that faith?

Mr. McKNIGHT: Can you tell me in what way the legislation that was sought last year will better our condition as bee-keepers, than the law allows at present? Until that law is proved to be ineffectual we do not require another. Laws are supposed to be just, and penalties are fixed in proportion to the crime. There is where I think you will fail in getting that particular portion of your Act passed.

Mr. HALL: The Act we want. The penalty comes afterwards. The stealing of a cent is theft in the eyes of the law as well as the stealing of \$50,000.

Mr. McKNIGHT: The laws were made for the people.

Mr. HALL: That is it. They don't want to protect themselves; they want to protect the people. This is a specific law against the manufacture. I can produce to you a pound of sugar comb honey for every pound of sugar you give me. We want to guard against the monopoly.

Mr. DARLING: Mr. McKnight asked a short time since where we expected to get any advantages from this proposed bill that we do not already possess. I answer that by asking another. If that bill he has spoken of gave us all we wanted, why did they have to pass another bill to prevent the manufacture of butterine? If that Act will not

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cover butterine, it will not cover this if sold as sugar honey. Supposing it was labelled "sugar comb." Does the proposed law cover this?

Mr. HOLTERMANN'S motion was put and carried.

The election of officers was then proceeded with, the result of which is given on page vi.

QUESTION BOX.

Q. "How is honey ripened? Is it simply placed in the cells and evaporated by the current of air revolving in the hive, or is there any likelihood of the honey being gathered by the field bees and afterwards rehandled by the bees in the interior of the hive."

Mr. McKNIGHT: My idea of the process of ripening honey is the expelling from it the superabundant watery part of it. If that be what ripening honey means, it is very easily understood how it is done; that it may be done either in the hive or outside the hive everything being in proper condition, but I would like to refer to Mr. Corneil for an explanation of that process. I have my own ideas and, leaving the process of ripening out of the question, my idea is that honey can be just as well ripened outside the hive as inside, and that it can be done from the outside without any evil effects. I have a clear and distinct idea in my own mind of what ripening honey means. My idea is that any system adopted by which that superabundant quantity of water is drawn off is a process of ripening. We understand a standard and what good honey is—its weight, density and specific gravity, and we judge of it by that standard. Everybody knows that nectar is found in the hive in diluted state. It is not up to the standard, and therefore some means must be employed by which that moisture is driven off. If honey is rapidly gathered it will be rapidly sealed and the result is that it will not be ripe when sealed. I believe that the process of ripening will go on according to the temperature of the hive, but will go on much more tardily through having to be expelled through the capping of the comb, than by the process which Mr. Corneil follows. I was amongst the first who got up something special for the ripening of the honey. It must be ten or twelve years ago, that I got an article made. My machine is a double tin can, with the bottom of the inner can about a couple of inches above the bottom of the lower can. The bottom of the lower can is an ordinary tea kettle bottom so that I might set it on the stove hole. There is a faucet right through the two cans. I pour water into the space between the inner and outer cans, so that the honey, being in the inner can is heated by the water boiling in the other one. That is my process. That is what I understand by ripening honey.

Mr. R. H. SMITH: You mean artificial ripening I suppose?

Mr. ALPAUGH: My opinion of it is that the honey is ripened in the hive. The bees can ripen the honey more in 24 hours than you can ripen it in one week. By going to a great expense may be you can ripen it in less time than the bees, but in trying to ripen honey in large quantities, before you can evaporate it, there will be fermentation started. It may be so little that it is scarcely noticeable, but it is started. Take thin honey just as it is gathered, and see if you can ripen it. If you take it when it is nearly ready to cap, that is only finishing it outside the hive.

Mr. CORNEIL: I can take a quantity of honey—say ten pounds—and mix it with ten pounds of water and put it inside an evaporator, and inside of four hours I can make it thicker than any honey Mr. Alpaugh ever saw.

Mr. ALPAUGH: And not fit to use.

Mr. WELLS: The bees keep fanning, and thus evaporating. Weigh the honey at night, and you will find in the morning it weighs much less. They keep fanning all night.

Mr. HALL: My observation is this. You feed the bees with a very thin syrup. When they go home they scatter it inside the hive. I have noticed in gathering honey

that the outside combs were shining with honey. Going there in the morning, there was not a particle to be seen. My theory is that they move it from place to place and the action from the stomach of the bees evaporates it. I believe the first stage of evaporation is done by the stomach of the bees. I also noticed in feeding bees where I could see them, they would get in a cluster and hang there. I suppose they were staying there to hold it in their sac to evaporate the moisture. I have noticed the bees going in full and feeding the downy bees, and the downy bees spewed it into the cells. This transfer would evaporate it.

Mr. McEvoy: The heat of the hive has a good deal to do with it. You can get the honey evaporated but you can't get the flavor that the bees give it, by outside evaporation.

Mr. PETTIT. Mr. Hall used the term "evaporate from the stomach." My theory is that bees gather the nectar and put in it what we call the honey sac. I believe that sac has the power of evaporating the water to a certain extent, when the bees are not so rushed. That is not evaporation. I have noticed this throwing off of water, but it is not that they have been taking water. It is part of the honey. They throw off this watery substance. The young bees get it after they take it to the hive and they retain it for a shorter or longer period, according to the necessity of the case. If they are crowded a good deal they do not retain it so long, and as a result it goes to the cells thinner. The bees have in their system the power of separating the water from the nectar.

Mr. McKnight: Do you believe that is the whole process?

Mr. PETTIT: No; that is part of the process.

EVENING SESSION.

OUR PERSONAL RESPONSIBILITIES.

Mr. J. K. DARLING, of Almonte, delivered the following address:

There are times when, as we jog along through life, we meet some things that make us glad and some things that make us sad. I am glad that I have come to this town for several reasons. I have taken a pleasure in knocking about from one place to another, but I must say that I have been as favorably impressed here as I have been for some time. I was present here yesterday when the Mayor gave us his address of welcome. He spoke of the natural beauty of the place; of its financial prosperity and of some other things that he thought were worthy of our notice. There were some things, however, that he did not speak about, that I thought I would mention, in a word or two; that is the artificial beauty of the place. I was very much pleased when day-light came around, the day after I got here, and I saw the width and symmetry of the street and the buildings that are ranged on both sides. I do not know that I have ever been in any place that I was so much struck with the beauty of as this place. I do not know that I believe in cities being laid out as if they were on paper. They remind me of an architect who drew up a plan for the Governor's palace. He thought he had just the place. He put it in the centre of the town, with streets radiating in every direction, and the house was built and occupied. I don't know if it is true, but the story goes that when washing day came around, there was no back yard in which to hang out the clothes. I have not seen anything here that would mar the natural beauty of the place. I have been from home, and I have generally carried back with me the thought that home was the best place of all. I expect to go home with the same feeling again, but I have not been anywhere where I have had a better impression of what I have seen and heard than in the town of Lindsay. Perhaps you know why we have come here. Perhaps if I would ask you the question, "Why we are here?" you would say, "To learn." However, I will say

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that whether we have come with that purpose or not, we have all come here as educators; whether we will it or not, we stand before the world as educators. Man is an imitative animal. He is more. He is an animal with intelligence. He in turn becomes a teacher to those he comes in contact with. Whether we will or not, we all exercise an influence on others. When I say that I mean myself and yourself. We are here as educators and we are going out of here as educators. We are here to receive and we are going out to give out. As I said a little while ago, man is an imitative animal. The ideas that he receives from others, he again transmits. According to that we are mediums. We are responsible to those around us for the deflection or reflection of this influence. If we receive any ideas from another and transmit them again, they are becoming, more or less, our ideas, and they in turn become ours to other persons. What we feel and what we know glide out imperceptibly. It is impossible to have our hearts and minds filled with one thing, and hold conversation on another and different thing altogether, for any length of time. Truth will out. Then if we refrain from speaking. Perhaps our consciences are astonished at ourselves. Our actions are the index of our thoughts. We often hear it said by persons who have the training of youth, that their tempers must be subdued; their wills must be broken. Well, now, I would give very little more for a boy who had the temper taken out of him than I would for a jack-knife in the same condition. We must use our position as educators to see that these wills are guided in a right direction instead of leading them down to something that will be a disgrace to them; these fiery tempers, this push, will lead them on to something better and will lead them on to do something we have tried to do and in many cases failed in. We have got to do at once what we are going to do, or perhaps the opportunity is lost forever. These boys in turn become educators whether they will or not. The boy that is on the street is watched by those who are around. The girl that is going to school is watched by her companions. These are educators in a certain sense, as the young will follow their example. I do not know whether any of you have heard the story of a lady who could tell what kind of a girl she had in her house by hearing how she spoke to the cat. The girl that would find the cat some place where she ought not to be, and would say "scat" was just about all that she ought to be. You know it is often said in a sort of slang way that we are going through this world for the last time. It is a solemn fact. We are going through this world for the last time, and as soon as we pass away others fill our place. This, that is so often said in banter and in a thoughtless manner, is such a solemn truth, that it ought to make us use the moments as they fly. Let us make our impress on others. In some of our industrial establishments they have a sort of an electric clock that is a regulator or tale-bearer on the night watch. On the face of the clock is a little pin that is connected with an electric wire. If the watchman is where he ought to be, at the end of every fifteen minutes he can put a key in the hole in the face of the clock, but if he lets that fifteen minutes go by, he could not drive the key in with a sledge hammer. That is the way with us in life. We are not bound down to minutes, but we must be prompt. If we could accomplish what we set out to do, we must not let duties pass. Let us be careful that opportunities are not lost and lost forever. I have thought that perhaps the little insects that we have to deal with are not such bad educators in that line. Now, as bee-keepers we know that in many things we have to be prompt; if not, we might as well not do anything at all. I do not know that I should occupy very much of the time here. I feel that what is said here to-night will probably be remembered by some, not so by others; but I just wish to go on record as one who is trying to leave behind me an impress for good. I hope that every one of us will feel it our duty not to live for ourselves only but for those who are around us. I feel that we ought to do the best we can for others. We are not living for ourselves. I have been pleased with the reception that we have received here, but I forgot in the first part of my short address to say how pleased I was with the music we have listened to here to-night. I am also pleased that we have a larger proportion of ladies at our meetings than we have had before and hope that our annual meeting will improve in that respect until the ladies will just feel the same interest in these meetings.

BEE-KEEPING AS A CALLING.

Mr. PETTIT followed and said: My speech will not be a flowery one like the address you have just heard from Mr. Darling. I am going to talk just a little about bee-keepers. I want to begin by saying that I do not believe, as bee-keepers, we prize our calling as we ought to. I do not believe we appreciate our calling as we ought to and as it deserves. I don't believe we get in love with it and make a perfect success of it as a rule. To make a success of anything in life, you want to think of it; turn it over in your mind; enthuse yourself with it; get in love with it; then you will do the next best thing—talk about it. Impart that spirit to other people. Our calling as bee-keepers is worth our best attention as worldly things go. I think we have tested our honey by the side of the honey of the world. It has had that severe test, and it cannot be disputed that we have the very best honey in the world. We not only have the honey, but we have the country to produce it. The way to make a market and keep it is to make the honey what it ought to be and have a large surplus on hand. I believe there ought to be a local association started in every county in Ontario, and I believe that each one of these ought to be affiliated. I believe that each one of these associations out to send delegates to the parent society, then we would have a representative association. Such an association as that has power with the people; then the people will respect us as they do not now. (I don't know that they disrespect us.) What about the funds? If we persevere in this matter and make it what we ought to do and will do, it will be of so much importance to the country that we can approach and ask the country for more money. It would be to the advantage of the country to give us more if we prove ourselves worthy of the position we occupy. I am just going to give you a few figures so that I can show you what other associations get. I do not advocate asking for more money until we do more. The Central Farmers' Institute gets \$1,600, the Fruit Growers' Association \$1,800, the Eastern Dairymen's Association \$2,000, the Creameries Association \$1,499 and the Western Dairymen's Association \$2,750. Remember all these are Ontario organizations and the last three named, the Dairymen and the Creamery Associations, really represent the same class of people—people who keep cows. They get \$6,249. I believe that is money well spent. I believe the Government is justified in giving it, and we, if you take my advice and go to work, would place ourselves in the proud position to feel that we are doing more, and the Government would not be censured for giving us more; but we must do something before we ask for it. I want to throw out a caution. You remember the statement made here to day that sugar-honey is being produced in this country and sold. If it is a fact, it is a terrible state of things. I want to caution everyone here—don't tell anyone, but we will soon be in the same position as the Americans when they sold bass-wood hams and wooden nutmegs. We do not want to show a selfish spirit, and we do not want to show that we like ourselves better than we like any person else. There are people we meet who put me in mind of a little boy who showed rather a haughty, proud disposition. His mother said to him, "Don't you like your mother?" "No," he said. "Don't you like your dear mother who does so much for you?" "No." "Don't you like your papa who buys you candies and toys?" "No." "Don't you like your brothers and sisters?" "No." "Don't you like anybody in this world?" "I just like myself."

Mr. DARLING: In regard to what we might get the Government to do for us. We cannot approach the Government and show them what we are doing. We must first show them the amount of honey that is produced. Let us think of it and take some action on it. If we can't do it let us get the Government to do it.

Mr. HOLTERMANN: When the census was taken, the Government reported about 170,000 colonies kept in Ontario.

Mr. PETTIT: Four-fifths of the bees kept in Canada are kept in Ontario.

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QUESTION BOX.

Q. What effect has upward ventilation on bees in summer or winter?

Mr. R. H. SMITH: The effect in the summer, of course, is to reduce the temperature in the hive, and, if it is very hot weather, to give the bees a better chance to work. I may say that last summer while visiting in St. Thomas, I had my ideas considerably changed on the matter of ventilation. I was always under the impression that it went up. In visiting one place I was shown the apiary, and I there saw that the ventilation was downward instead of upward through the hive. In regard to ventilation in winter; it is only necessary to have ventilation then to carry off the surplus moisture. If the moisture has no escape it usually condenses and gets mouldy.

Mr. COUSE: I don't know that I can say very much about it. My ideas are something similar to Mr. Smith's in regard to upward ventilation. I found last winter where the hives were closely covered on top and the cellar being cold, there would be ice in the hives. There was no fire where the bees were. The moisture was frozen on the bottom. Those that had upward ventilation were not so. There ought to be upward ventilation, particularly where it is cold.

Mr. ACHES: I ventilate by giving them plenty of ventilation below. Place them about half an inch from the bottom board so as not to let the heat escape. I would not allow upward ventilation in my hives. If there is any moisture it goes up. There is no moisture in my hives in the winter. I want heat in my hives. The honey will ripen more quickly by having heat.

Mr. MYERS: Where will upward ventilation stop? Mr. Smith hinted that there would be upward ventilation if we had a light covering on to let the moisture pass. How light has the quilt to be before there is upward ventilation? Could we not get at something, as a society, that would define upward ventilation from what is not considered upward ventilation?

Mr. ACHES: Put a cushion on. The heat is kept in. I don't leave the top on.

Mr. SMITH: In reply to Mr. Myers, I do not think that any thickness of covering would stop ventilation if it were upward.

Mr. HALL: I would like to know what you mean by "upward ventilation?" I don't want the upward ventilation if you can give them bottom ventilation.

Mr. ALPAUGH: As regard upward ventilation in winter, it depends quite a bit whether it is out doors or in. If you take it in the cellar where it is moderately warm, it doesn't matter whether you have upward ventilation or not. I have had them with the quilts off or on—it doesn't make any difference. In winter outdoors you must make a little ventilation somewhere, or otherwise you will have mouldy combs. To ventilate my bees outdoors I raised the quilt just a little to allow the moisture to escape. For summer I sometimes give upward ventilation or downward ventilation at the top. Any way I make an opening in the top of the hive. The air rushes in as long as the bees fan. For comb honey I don't open up at all. The clear air rushing in there prevents them going up.

Mr. SHERRINGTON: I don't want ventilation in the summer at all. I find the closer I keep the hives covered, the better the bees work. As to winter ventilation, they winter out doors and I raise my hives and put a rim under. I leave an entrance open.

Mr. McEVoy: You ought to put a cloth across the frames and never put the lid down on the hive tight. If you can watch them and keep the show clear from them, it is better to do so. If it is a strong colony and the lid is tight, it will steam up. It is not safe to leave the lid down tight. There is no ventilation with that.

Mr. STORER: My plan is to bore a hole in the centre of the hive at the ends of the frames and leave it open all winter. Cover the bees with shavings on top. Leave the fly hole open. For three winters I have kept them that way and always successfully. I use a little cushion on the top, in the cellar.

Mr. HOLTERMANN: I am specially interested in this question as I have made a change in my method of wintering. I would like to get further information. In winter heretofore I have used a cushion. Might I ask for an expression, a show of hands to let us see how many use the propolised cloth?

Mr. PETTIT: I would advise you to raise the hive and put a cushion on it. I have stands for the hives to stand on. Nail strips of board along the top so that you will have a stand eighteen inches high to put the hives on. One board is about three inches higher than the other. There is an entrance in the front, three inches high. The hive is about nine inches deep—a little more. Raise it in front, so that you have both a front and back entrance.

Mr. PICKET: How many leave the propolised cloth on?

The vote was in favor of leaving it on.

THURSDAY MORNING SESSION.

REPORT OF THE FOUL BROOD INSPECTOR.

During the season of 1893 I visited bee yards in the counties of Lambton, Middlesex, Elgin, Ontario, Oxford, Brant, Wentworth, Halton, Peel, Wellington, Perth and Huron. I examined eighty-nine apiaries and found foul brood in thirty-four bee yards. In three apiaries the disease had not made much headway; while in four it had. The remaining twenty-seven foul broody apiaries were in a horrible state with foul brood; and the death rate in several of these diseased apiaries was the largest I ever saw. Before I examined these thirty-four foul broody apiaries, over five hundred and fifty colonies had died of foul brood. It would have taken a good deal of time to examine every colony in every diseased apiary, and would have delayed me very much at a time when I was wanted as soon as possible in other places, so, for this reason, I cannot tell how many diseased colonies there were in the thirty four foul broody apiaries when I visited them the first time. I took the greatest of pains to explain everything to the owners of these diseased apiaries; how to cure their foul broody colonies by the methods of curing foul brood, which is by far the best of any in the world. And, as it cannot and never does fail when properly done, it should be followed by the bee-keepers of every land. Bee keepers in two counties, while overhauling their colonies very late in the fall, came across a kind of dead brood that they dreaded might be foul brood. I got orders to go and examine those apiaries, which I did. I found it to be genuine foul brood. As these apiaries were large and a good distance from other bee yards, and in the hands of good men who were very anxious to get their apiaries cured in the most profitable way, I told the owners to fix them up the best way they could and cure early in the next honey season. I have had a few apiaries that came in late left over each year. Judging from those I examined the second time, and from those I heard from, I am well pleased with the grand cures the owners made; and I believe that those apiaries that came in too late in the fall to cure profitably will be cured in June. I was very sorry to have to burn fifteen colonies with foul brood in the county of Middlesex. I always do everything I can in every possible way to get the bee-keepers to cure their foul broody apiaries. I have written many long letters hours after I should have been in my bed, to the owners of foul broody apiaries, explaining to them how to cure foul brood, and I have spent several dollars out of my own pocket in helping to get the cures made. But when I do all I can and the owner won't cure, then I have to burn up the diseased colonies for the public good. I have been four seasons inspecting the apiaries of Ontario and found foul broody apiaries by the wholesale every year. I had to get the curing done by all classes of men. Many of these men had to be looked after very closely to keep them from making big mistakes. I got the curing done in grand order and in the most peaceful manner. I am very much pleased to say that no man could ever wish to deal with a better lot of men than I met with on my rounds through Ontario. My time, car fare and livery hire amounted to \$504.55.

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Mr. MYERS: You say you found a great many apiaries in which foul brood existed. Do you think foul brood is being cured as a whole, in the Province of Ontario, or is it spreading?

Mr. McEvoy: It is decreasing.

Mr. ACHES: I am a delegate from Middlesex. What instructions did you give these individuals, especially beginners, as to how they should treat their bees in order to prevent the spread of the disease in the vicinity?

Mr. McEvoy: That is in reference to late in the fall?

Mr. ACHES: When honey it not coming in.

Mr. McEvoy: When I was in Strathroy, in the county of Middlesex, I explained to the owners of diseased yards thoroughly how they were to work at these in the evenings. If they examined them on a morning of a fine day when there was honey coming in, robbery would take place. I told them to do the work in the evening. Take the bees out and shake them down and give them a foundation. If there is no honey coming in, feed them sugar syrup. Take them in lots and shake them. It means reduction of bees. If other bees get track of it in daylight, they will rob the honey and spread the disease. Do it at night.

Mr. ACHES: My reason for asking was that I was in the town of Strathroy and almost every one I met asked me what instructions the inspector gave. They were treating the bees in the middle of the day. I thought likely some of them were spreading the disease.

Mr. PETTIT: It seems to me that the law should provide for a man treating the bees in the way the orders were given, and not allowed to open the hives during the day.

Mr. HOLTERMANN: I was at the Strathroy meeting, and I may say in support of Mr. McEvoy that there was a general feeling that the foul brood inspector had done his work thoroughly and well. I move that the report of the foul brood inspector be received and filed. Mr. Gemmell seconded the motion.

Mr. CORNEIL: There is a real pleasure in being able to say an agreeable thing sometimes. I congratulate the inspector on the improved report that has been presented this year. He has given us far more particulars than he gave us in former years. I shall support the motion with pleasure. The motion was carried.

Mr. HOLMES: How far is the most easterly point at which is treated foul brood in this province?

Mr. McEvoy: Prince Edward County.

THE MANAGEMENT OF OUR APIARIES AND SHIPPING BEES BY RAIL IN SUMMER.

The following paper was read by Mr. CORNEIL in the absence of the writer, Mr. C. W. Post, Murray, Ont: During the last few years establishing out apiaries has become a necessity with the specialist, not so much for the reason that certain localities have become overstocked with bees, but from the fact that it is very difficult to find a locality with all conditions favorable for a continuous flow of nectar from the beginning of the clover bloom until the closing up of buckwheat and other fall flowers. In this article I will go no further than what I have learned from actual experience. My home apiary is a poor locality for white honey, but one of the best for buckwheat and fall flowers. For that reason it is for me a necessity to establish out apiaries. My first attempt was in 1885, hauling the bees and surplus arrangements on spring wagons. This I continued for five years, and during that time, with the increase in colonies, it became a long, tedious job to handle them on wagons. As I am living on the line of the Central Ontario Railway and only a short distance from Weller's Bay Station, a thought suggested that it could be managed to handle them in car loads. So in 1890, I began in a

sort of experimental way to handle bees in car load lots; and, from the experience gained in the past four seasons, I have learned and know that bees can be successfully shipped by rail in full car load lots in the very warmest weather. I will give in detail my system of management, from preparing them for shipping in May and early in June until they are returned home the first of August, and if there is a better or different way from mine I hope it will be brought out in discussion, that we may all receive a benefit from it.

I use and prefer the nine frame Langstroth hive with bottoms secured with Vandusen clamps. The sides of hives are cut to project one-half inch beyond the front end of hives. Each hive is furnished with wire cloth screens framed with one-inch straight grained basswood. The size of the top screen is the outside dimensions of the top of the hive, and the bottom one is one-half inch longer, or just the length of the sides of the hives. It also has a one-inch screw in each side to correspond with the one in the bottom board.

To prepare them for shipping, take off the bottom boards and put under the screens—wire cloth up—and with a hammer drive the clamps on solid and sprig in a one-inch wire nail behind them, then nail on the top screens—wire cloth up—and, after they are done flying in the evening, put on the entrance sticks which are cut three eighths of an inch in thickness by just the length of the ends of hives, so they fit between the sides of hives and fit down snug on the ends of the screens. Being thus secured, if the screens get shifted, the bees cannot escape.

I ship my bees in a stock car and place them with the combs running lengthwise of the car. The first tier is placed on 2x4 scantling, which allows ample ventilation below. The next tier is placed two feet above them on 2x8 plank resting on the sides of the car, spaced so that the ends of two rows of hives rest on the planks, leaving the bottoms of hives unobstructed with an upright in the centre and above that is the third tier arranged in the same way. Shipped in this way, one end of a car holds 180 colonies, while the supers, sun-caps, stands, etc., occupy the other.

I run my bees north from twenty-five to forty miles, and they are confined in the hives forty-eight hours. During this time they require a large quantity of water, which is given them by means of a fountain pump.

I much prefer locating my apiaries close to a station as I have done for the last two seasons, as it requires no handling on wagons. On arriving at our destination, and the car is placed right at the yard, we first unload and place the stands, then place the bottom boards on the stands. Next comes in the sun-caps (each sun-cap holds a queen excluder and honey board). Now we are ready for the bees. One man carries them to the car door and two other men set them on hand barrows and carry them to the stands on which they are placed, and, if the sun is shining, a sun-cap is placed on crosswise. By watering them well as unloaded, it is better not to liberate them until after sunset as it prevents them from mixing. After liberating, put on the sun-caps and leave them till morning. The next day we take off the top screens and, if the honey flow is near, and colonies strong, put on the top stories and fix them all up, but I don't put on the queen excluder until honey begins to come in freely. Now, as there is seldom any shade in these out apiaries I manage them as follows: I prefer in summer to have the hives front north-east so that during the hottest part of the day the sun strikes the back ends of the hives. But if the lay of the land does not admit of that, set them any way. I also leave the screens under the hives during the summer, and if the weather is very warm, I raise the back ends of the hives on half-inch blocks which allows a free circulation of air under the cluster. They cannot hang down to the bottom boards and obstruct the ventilation, but the cool air passes under the whole brood nest and they are perfectly contented. If very hot, I raise the back ends of the four-inch sun-caps and slide them forward till it rests on the honey boards, which allows a circulation over the honey boards, and, added to this, all hives painted dead white, the melting of combs and bees uncomfortable from heat is a thing of the past.

I believe that our apiaries can be run more profitably for extracted than for comb honey (at the present prices) therefore I make a specialty of the former. For a number

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of years I have furnished each hive with two top stories, eight Langstroth frames each, but I believe we can get better ripened honey by using one set of combs above the brood nest; but at the same time I want two sets in case of emergency. I begin to extract when the combs are about two-thirds capped and take them clean as we go. With two smart boys to carry combs and draw off honey, extracting is a very short job compared with doing the same work ten years ago.

I have used nearly all kinds of extractors but I now use and prefer the New Gould Reversible Extractor. If there is one as good I never saw it. I extract, and keep the different grades separate. When basswood begins to fail, everything is cleaned up and the bees prepared for moving. At the last extracting I place five sixteenth inch strips of wood across the ends of frames in the top storeys, take off the queen excluder and set the top storeys back on the hives. My top storeys telescope over the hives three-quarters of an inch and a wire nail is sprigged in each side to hold them together, then the screens are placed on the top of hives and in the evening after they are settled down, tacked on the entrance sticks and they are ready to load on the car. They are placed in the car as before, but only two tiers high, as the top storeys take up the place. At this season of the year colonies are very strong and the weather warm. They must have plenty of water, but the old adage that "A little too much is just enough" will not apply here, for a little too much is as dangerous as none at all. Never water unless they cluster on the screens; then spray them lightly but often, and they will soon settle down between the frames. If you give them too much and get them steaming, the game is up.

When they arrive home, they are drawn on a large spring wagon to the yard and set on the stands without the bottoms, and the sun-caps placed on crosswise to give thorough ventilation. After sunset they are liberated and the next day, if the weather is favorable they will be working on the buckwheat as briskly as though they had never been moved.

I intended to say something on overstocking, but I find after getting my bees back home that I have already said too much and I will leave that subject for some future time.

Mr. McEVoy: I think, without any exception, Mr. Post is one of the best bee-keepers we have in the province.

Mr. GEMMELL: I must say that Mr. Post's paper is an excellent one. I have moved some bees in wagons, by putting only a screen on top. When I moved my bees it was generally to take advantage of the fall flow. If you drive them home late in the fall very little ventilation is required. If you move bees in warm weather you want lots of ventilation. In order to keep the frames from moving, a nail is driven down through, and, as soon as the wire cloth screen is pressed down on the top, it keeps them firm. I take a piece of twine and fasten them firmly. The binding twine seems to fasten them sufficiently for any ordinary moving.

Mr. ALPAUGH: Are those little nails sufficient to keep the frames from flopping?

Mr. GEMMELL: No; something is required underneath, if moved a great distance, or even on the cars.

Mr. McEVoy: Are those five-sixteenth strips to keep them from moving?

Mr. CORNELL: These remarks are in relation to the hanging frames.

Mr. JONES: Have you sprayed your bees in going out?

Mr. GEMMELL: No; I generally move early in the morning or late in the evening I have at times taken an ordinary whisk broom and sprayed them on the top.

Mr. CORNELL: I have had some experience in moving bees by rail, and if anyone had told me the amount of heat they could get up in the car I would not have believed it. They were put in a box car. I moved some bees a distance of about thirty miles. There was a good deal of shunting and bunting of the cars. When about sixteen miles from here I looked at the bees. They were not over heated at that point. When the train

reached Lindsay, there was a good deal of bunting again, and when I came to open the car door, the blast of hot air that struck me was something wonderful. A great many of the bees were scalded. That was about the 20th of May.

Mr. ALPAUGH: I never shipped bees but once on the cars, and that time I had a little muss. They got heated. For moving bees on a wagon, I have always got along very well with top ventilation, that is if you raise the screen up about one and three-eighth inches from the top. I make the frame of which the outside measure is the width of the hive, sideways. The end pieces of the frame are deeper than the side pieces, so that they come down on the hive and sit on the frames. The screen is tacked on the top of this. To prevent the screens from moving, I put two heavy screws through the end of the frames down into the hives. At the entrance I put on a screen the full size of the entrance.

Mr. HOLTERMANN: We do a good deal of shipping of bees. We ship bees as far as Prince Edward Island and the North-West Territory. They have gone to Regina by rail and two hundred miles by stage to Edmonton. We have yet to ship a colony that has been lost. The way we do it is this: We take the colonies in which the combs are not perfectly new; that is, if you are selling bees, take a colony where they are not new. About the top of the hive you must use your own judgment as to the season, strength of the colony, etc. Nail a board across and on top of the frames a part of the distance over the top in the front and rear wire cloth raised to form a porch. We cover the entrance with a sort of a cage, to prevent clogging.

Mr. MCKNIGHT: If the question before us warrants us in going into the discussion of shipping bees by other than rail, I have some experience. I quite agree with the gentlemen who have advocated careful preparation when they are to be transported by rail, but I do not at all agree with those who give so much preparation to transshipping by wagon. I used to believe as they, and I used to practice my belief by consuming a good deal of time in the preparation. I have moved bees for several years now, and, whether with the extra preparation or without it, I never knew yet that I have lost ten bees. A good deal of this preparation is unnecessary, and a good deal of the ventilation that is given may be done without. I use the "Simplicity" hive, and they are bevel edged. I got frames made just the same as the frames of the honey board, but $2\frac{1}{2}$ inches deep, so that there would be a space. I no longer use these. I no longer use any wire cloth in shipping my bees. I no longer use any preparation in staying the frames—they never get out of order, unless the hives are new. I confine my bees always about fifteen hours without any upward ventilation, and with very little bottom ventilation, in the early summer and the fall. I enclose them and secure them close; that is all I aim at—to keep them in. I start them off early in the morning. They go about fifteen miles and the roads are pretty rough.

Mr. PETTIT: You say that you do not take any pains to prevent the frames slipping out of place and that they do not slip. Do they hang on supports?

Mr. MCKNIGHT: Yes.

Mr. HALL: Mr. McKnight is perfectly right in moving bees at the time he does and how he does it, but these bees are to be moved in hot weather. I do as he does at that time of year, except that I have a breathing space at the entrance. I would use the directions given in that paper at the time stated there.

Mr. MCKNIGHT: I only recommend it being done in that way at the time I do it.

Mr. HALL: Perhaps your bees have a little knack of building brace combs? At the time of year you say, they will travel in that way. So far as you have gone you are all right.

Mr. MCKNIGHT: My experience is that bees are very quiet in moving.

Mr. HALL: My experience is that I have no comb, mused honey or dead bees if left unattended.

Mr. PRINGLE: It all depends. Bees can be shipped as far as Nova Scotia. When I shipped in cool weather I took the same precaution that Mr. McKnight did and they

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went through safely, but to ship bees a long distance by rail in hot weather they must have plenty of ventilation at both top and bottom. Bees can be shipped successfully, as Mr. McKnight has said, but at other times it would not be a success. I simply have an adjustable entrance—a zinc entrance. I slip the zinc out and nail a piece of wire cloth on. That is all I give them below. In very hot weather I have shipped to Nova Scotia and they went through safely. Two or three colonies will go by rail in a car safely, if fixed up in a certain condition, while if there were a lot of bees they might perish. When you have a lot they must be carefully attended to.

Mr. PETTIT: Mr. Atchley throws cold water all over the hives and inside of the car. This water, in warm weather, will create a very great ventilation. It takes off a great deal of heat. That is my point.

Mr. MCKNIGHT: I put a saturated sponge in mine.

Mr. COUSE: We had to take eighteen or twenty colonies and we loaded up a waggon. We had to take them some distance. It was in August. We put wire-cloth over the frame and a wire screen over the entrance. The colonies were strong, but when we got to the end of the nine miles which we were going, there were not enough bees to spread all over the wire top—the rest were all smothering. We took off these screens and they all went out and never came back.

Mr. GEMMELL: The ones that I lost in the very same manner, were all clustering at the top, and they were sticking out their tongues. Once I opened the hive the bees came out in a cloud.

Moved by Mr. MYERS, and seconded by Mr. ACHES, that the thanks of this meeting be tendered to Mr. Post for his paper. Carried.

QUESTION BOX.

Q. Does the system of managing bees, known as the "Alpaugh system," do away with the swarming, or is the swarming more under control than otherwise?

Mr. ALPAUGH: Yes; it does.

A MEMBER: Are the bees at the end of the honey flow in proper shape for winter?

Mr. ALPAUGH: Probably not.

A MEMBER: Will we have more or less drone comb than by the other management?

Mr. ALPAUGH: That is a question that is to be decided yet.

A MEMBER: More or less increase?

Mr. ALPAUGH: Less. I suppose this is the system that was talked about a year or two ago, which I do not practice myself now. When I first thought of this system, I was wintering inside. They did not seem to have time to brood up, and when the flow came on in the middle of June, they had not time to brood up sufficiently. Now I am wintering entirely outside.

Q. At what age is it desirable to supersede queens?

Mr. HALL: At the age the workers decide on. At the age the daughters of the queen decide that their mother should be superseded.

Mr. CORNEIL: Some queens will be good at the end of three years—too good to supersede.

Mr. MCEVOY: Kill them off at two years. You will get a bigger crop of honey.

Mr. MYERS: Do you ever find bees allowing the queens to live until they are useless.

Mr. HALL: Yes, I do; but it does not answer to kill our queen bee because she is so many years old.

Mr. COUSE: I would prefer to have young queens. I find in looking over colonies in the fall that I have more young bees than I would with older queens.

Mr. ALPAUGH: You can hardly supersede queens where there is a fall flow, but provided you live where you do not get any fall flow, I believe there is something to be gained by killing the queen at the end of the second year. Kill all your queens after the flow is over, say about the first of August or a little later. Kill them off. I have practised this only a very little, but what I have done is successful.

Mr. HALL: When Mr. Alpaugh is twice the age he is now, he will alter his opinion.

Mr. ACHES: Select a good queen from a good stock. By all means select a young queen. I approve of the practice for one who understands the business.

Mr. PETTIT: It is a mistake to make a practice of destroying your queens at a year old, indiscriminately. Bees supersede their queens oftener than people are aware of. The bees do the selecting. They know when she does her work and they attend to that matter and supersede her if she is not up to the mark. I am not sure that you are going to raise as good a queen at a time of the year when there is no honey flow, as the bees will raise when they want to do it. Another point—you follow that practice right on for a number of years and the bees become habituated to it, and after a while they get out of the way of watching to supersede their queens, until they lose that instinct, so that they would not be as careful to supersede their queens, hence we would deteriorate the stock of bees. If you allow the bees to do it themselves the strain of queens that live long perpetuate that strain, so that we keep our bees as good as they were. The feeling now of killing queens is not as strong as it was at Walkerton, and it will be less in five years.

Mr. McEVoy: If I had to leave it to the bees I would kill at one year.

Mr. HALL: I have a queen four years old last spring. I intended killing her at the end of the honey flow, but when the time came I drew back.

Q. Is it desirable to exclude drone comb from the brood chamber?

Mr. PRINGLE: No; it is not desirable to exclude it altogether. I prefer giving them a little.

Mr. GEMMELL: Would you prefer giving them some, provided you gave them sheets of foundation.

Mr. PRINGLE: They make it themselves. They have it anyway.

Mr. McEVoy: I have not got six inches of drone comb in ninety hives. I have not got any drone comb that I know of, but of course they work in a little piece somewhere.

Mr. PETTIT: You want a lot of drone comb in every hive. What is a lot? I would say at least one-tenth. I would not care if it was one-eighth of all the combs in the hives. The bees want drones and they will have them. You give them the beautiful combs and they are going to mutilate those combs. They spoil the combs. Your bees are restless. If you give them the drone comb to start with they feel happy from the very start. Let your drone comb be placed on the outside. I have twelve combs in my hive. I don't believe you will have as much swarming, because if there is discontent it will engender swarming.

Mr. ACHES: I believe that circumstances alter cases. We do need drone comb. Where would you put it?

Mr. PETTIT: In the brood chamber.

Mr. PRINGLE: I believe there ought to be a little drone comb in every brood chamber, about from four to six square inches.

Mr. ACHES: Do we need it in our extracting cases? Is it profitable there? Do you think it well to have some on the upper cases?

Mr. ALPAUGH: I am one of those who believes, along with Mr. Pettit, only I go still further than he does. It is not desirable to exclude drone comb from the brood chamber.

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They want it there, but not much. I give from one to two frames. Those drone combs do not seem to do any harm. Drones are all right in the hive, and probably they won't brood but once. There is this about having drone comb in the lower storey. I have super after super filled with drone comb. They fill it up if they have all the drone come they want.

REPORT OF COMMITTEE RE FREIGHT RATES.

The following written report was made by Mr. McKnight to the Secretary :

OWEN SOUND, December 28th, 1893.

S. CORNEIL, Esq., Lindsay.

Dear Sir,—In answer to your enquiry as to whether I have done anything in connection with the reduction of freight rates on honey, I have to say I have taken no steps to ascertain whether such can be effected. I have, however, satisfied myself that we have not much to complain of. I have secured a copy of the "Canadian Joint Freight Classification," to which all carrying companies in Canada have agreed. It will be necessary to submit our case at the annual meeting of the representatives of these companies before we can secure any modification in the present classification. Honey in boxes, kegs or cans is now rated first-class. Comb honey is not rated. The question is, is there any reasonable prospect of getting this rating lowered? I think not; for the reason that things of a very similar character have the same rating. For instance, castor oil—which is usually shipped in cased tins—is also rated first-class. Syrup, when boxed, is the same, and there is notably as much of both these articles freighted as there is of honey. If honey freights are too high, then both the above articles are too high. Honey in barrels is rated second-class; at best, we can only hope to get extracted honey when boxed or cased, reduced to second-class, and the difference between first and second-class is trifling. The difference between first and second-class rates between Napanee and Windsor (which embraces the western railway division of the province) is only six cents per hundred pounds. Between Napanee and Owen Sound the difference is seven cents, and *vice versa*. Broadly considering the whole subject, my conclusion is that we have relatively little to complain of. If I should be prevented from being present at the meeting you may present this as the result of my enquiries, as well as my opinion of the situation.

Yours truly,

R. MCKNIGHT.

Mr. PETTIT: I think we should push this matter. All these articles mentioned are very high. If bee-keepers would appoint a committee to look after the matter, I have no doubt something could be effected, but maybe not the first year. I am satisfied we pay too much in shipping our honey.

Mr. PRINGLE: As I was named as one of that committee I may say a few words. I have been asked by several parties to bring this matter before the Association. I have had no time to attend to the matter, but I do think that something might be done. I have talked to railroad men. I have shown the inconsistency of passing honey in kegs and barrels as second-class and putting the same honey in tins, securely boxed, first-class. I argue that the extracted honey in tins, well boxed, ought to go at the same rate as the extracted honey in kegs and barrels. I think it would be worth while to follow it up.

Mr. COUSE: That is just the line I was going to speak on. I think that there is no reason why honey in barrels and kegs should differ from syrup. The railroad men claim that there is such a muss with honey, as a rule. Honey in cans, they say, often leaks. Another thing, if you are shipping honey a great distance at the present time, the rail-

road companies will make you guarantee the freight. In shipping some honey to British Columbia, I asked what the rate was. He said, "You will have to prepay the freight." It had been previously quoted to me at \$4.25 a hundred. He said, "If you will guarantee the freight at the end, I will ship the honey for you." The rate from Streetsville to Vancouver was \$4 a hundred. The rate on comb honey is higher.

Mr. HOLTERMANN: I would feel inclined to agree with Mr. McKnight in the fore part of his letter; at the same time there is one important point at least, namely, that it is certainly an injustice that we should have to pay a higher rate for honey in tins than we do in kegs and barrels. It can be done by pressure.

Mr. McKNIGHT: It is the association of common carriers that classify. They group certain articles into certain classes, so that there may be a uniform rating throughout the country. We know now how honey is classed. If we think it is classed too high, the change can only be made through that association. That is the first place we will have to go to change the classification. The classification, as I understand it, does not necessarily affect the rate. The rate is put by each individual company.

Mr. PRINGLE: Supposing we set out to effect that primary object first—to get the classification readjusted, that is, to get extracted honey in tins, properly boxed—do you think the companies would forthwith put the higher rate on all?

Mr. McKNIGHT: No; I don't think so.

Mr. PRINGLE: Then we would have secured our object.

Mr. McKNIGHT: I think it is worth while continuing our efforts.

Mr. PRINGLE: I move that the old committee, or a less number, be reappointed to prosecute the work.

Mr. DARLING: I would rather that some other person be substituted in my place.

Mr. PRINGLE: The President can nominate the committee.

Mr. McKNIGHT: If I thought I would have to go any place from home I would not undertake the thing. I think all that can be done, can be done from home.

Mr. CORNEIL: Mr. Gemmell, Mr. Holtermann and Mr. Pringle should make a strong committee on that.

Mr. PRINGLE: I would suggest that Mr. McKnight be retained on the committee.

Mr. PETTIT: It required personal attention. One reason that honey has been rated high is because of the price. Show them that it is down to one-half now.

Mr. JONES: I do not think we should incur the expense of going personally to attend to the matter. It can be done by correspondence.

Mr. HOLTERMANN: So far as I am concerned, I will pay my own expenses. I would suggest that the committee named should select one or two of their number to make a personal application.

Mr. ACHES: I move that Mr. McKnight be retained on the committee. Carried.

NEW BUSINESS.

Mr. CORNEIL: I beg to move that Mr. James Fletcher and Mr. Frank Shutt, of the Experimental Farm at Ottawa, be elected honorary members of this Association.

Mr. PRINGLE: It is an important matter, and I have great pleasure in seconding the motion. It will be, no doubt, a matter of utility to us—the association of these gentlemen with us.

Mr. DARLING: I am personally acquainted with Prof. Fletcher, and have been for some years. I have had considerable correspondence with him, and he has taken quite an interest, and has, in connection with myself, carried out some experiments, and I am pleased that it has come up in the manner it has. I shall support the motion. The motion was carried.

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Mr. PETTIT: There is one thing that seems to me we are in danger of losing sight of. We want a committee to revise the report of these proceedings, and I will move that the President, the Vice-President and the Secretary be that committee.

Mr. HALL: I think it is a good selection, and I have much pleasure in seconding it. After some discussion the motion was carried.

Moved by S. T. PETTIT, and seconded by J. B. HALL, that the Ontario Bee-keepers Association now in session assembled, return their sincere thanks to Thomas William Cowan, F.G.S., F.R.M.S., for the interest he always takes in the welfare of Canadian bee-keepers, and especially for that excellent and helpful letter on the so-called "sugar honey," which he sent us in February 1893, and which appeared later in the *Canadian Bee Journal*. Carried.

Moved by R. MCKNIGHT, and seconded by W. J. BROWN, that the best thanks of the O. B. A. be and are hereby tendered to the mayor and corporation of the town of Lindsay for the kindness shown in many ways during our stay in their town, and for their liberality in placing at the disposal of the Association the use of the council chamber. Carried.

The proceedings were then closed.

MEETING OF DIRECTORS.

At a subsequent meeting of the Board of Directors the following items of business were passed in due form:

Mr. S. CORNELL was reappointed Secretary. Mr. M. Emigh was re-appointed Treasurer. The President, Secretary and Mr. R. McKnight were appointed as the Executive Committee.

Mr. A. PRINGLE was appointed delegate to the Central Farmers' Institute.

Mr. R. F. SMITH was appointed as representative to the Industrial Exhibition, and Mr. F. A. Gemmell as representative to the Western Fair.

Two hundred dollars was voted to be distributed amongst the affiliated societies; \$20 to be the maximum amount to any one society.

The usual grants of \$25 and \$10 were made to the Industrial and Western Exhibitions respectively.

Moved by Mr. PRINGLE, and seconded by Mr. MCKNIGHT, that the *Canadian Bee Journal* be given as a bonus to the members for 1894, and that we accept the offer of the publishers to supply it at 65 cents for each member. Carried.

Stratford was chosen as the next place of meeting.

BY-LAWS.

I. This Association shall be known as the Ontario Bee-keepers' Association, and shall be composed of those interested in bee keeping who become enrolled as members by paying the annual membership fee of one dollar

II. A general meeting of the members shall be held once a year and shall be known as the Annual Meeting.

III. The time and place of holding the Annual Meeting shall be fixed by the Board of Directors at their first Board meeting in each year.

IV. The President, Vice-President and District Directors shall constitute the Board of Management.

V. Five members of the Board shall constitute a quorum.

VI. Vacancies on the Board by death or resignation shall be filled by the President.

VII. The officers of this Association shall be elected by ballot, with the exception of the Auditor, who may be elected by an open vote of the Association.

VIII. It shall be the duty of the President to preside at all meetings of the Association, to call for reports, to put motions when seconded, to decide upon questions of order, and to declare the result of ballots and elections. The President, in connection with the Secretary, shall have power to call special meetings when necessary. The President shall be *ex-officio* chairman of the Board of Directors and shall call it together when necessary.

IX. In the event of the death or absence of the President, the Vice-President shall discharge his duties.

X. It shall be the duty of the Secretary to keep and preserve the books of the Association. To call the roll and read the minutes at every meeting of the Association. To conduct all correspondence of the Association. To receive and transfer all moneys received for fees and otherwise to the Treasurer, having taken a receipt for the same. To make out a statistical report for the Association and for the Government. To furnish the officers of county and district associations with forms for organization and annual reports, and to give notice of Association and Board meetings through the press or otherwise.

XI. It shall be the duty of the Treasurer to furnish such securities for the moneys of the Association as the Board may determine. To receive from the Secretary all moneys belonging to the Association and to give receipts for the same. To pay them out on order endorsed by the President and Secretary, and to render a written report of all receipts and disbursements at each annual meeting.

XII. Any county or district bee-keepers' association in the Province of Ontario may become affiliated to this Association on payment of five dollars which shall be paid to the Secretary on or before the first day of June in each year, but every local association so affiliated must have on its membership roll at least five members who are also members of the Ontario Bee-keepers' Association at the time of its affiliation and must continue to have a like number of its members on the roll of this Association while it remains in affiliation.

XIII. Every affiliated association shall receive an annual grant out of the funds of this Association. The amount of such grant shall be fixed by the Board from year to year.

XIV. All grants to affiliated associations shall be expended in prizes for honey shows, or for shows of apiarian appliances, or for lectures pertaining to bee-culture, or for advertising district or county meetings, the distribution of apiarian literature, or in sending delegates to the meetings of the Provincial Association, or for any or all of these.

XV. Every affiliated association shall report to the Secretary of this Association (on a form to be supplied by the Secretary) before the first day of January in each year, which report shall be signed by the President and Secretary of the affiliated association.

XVI. County or district associations seeking affiliation should forward to the Secretary an application according to the following form: "We whose names are written in the accompanying form having organized ourselves into a county (or district) association to be known as County (or District) Association No. — desire to become affiliated to the Ontario Bee-keepers' Association, and we agree to conform to the Constitution and By-laws of said Association."

Form of application as follows:

Names of those already Members of O.B.K.A.	P. O. Address	Fees.	Names of those not already members of O.B.K.A.	P. O. Address	Fees.	Remarks.

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XVII. Every affiliated association that neglects or refuses to pay the annual affiliation fee, or neglects or refuses to forward to the Secretary the annual report on or before the date fixed may be deprived of their affiliation privileges by the Board.

XVIII. Should an affiliated association become defunct after the payment to it of the grant from this Association, any unexpended balance of said grant shall be forfeited and paid over to the Treasurer of this Association.

XIX. Each affiliated association shall be entitled to the privilege of two representatives at the meetings of this Association, in addition to those who are already members of this Association, and such representatives shall be entitled to all the rights and privileges of members of this Association.

XX. Every delegate from an affiliated association shall furnish to this Association a certificate signed by the President and Secretary of the body which he represents, showing that he has been duly appointed a delegate of such society.

XXI. Each affiliated association shall be entitled to the services of an Association lecturer (when such exists) once in each year. Half the expenses connected with each lecture to be borne by the district or county association and half by this Association.

XXII. Districts or counties where no affiliated association exists, but into which an association lecturer is sent by this Association, the whole expenses of such lecture shall be borne by this Association.

XXIII. The order of business by which the meetings of this Association shall be governed, shall be in the discretion of the President, but subject to appeal to the meeting when objection is taken when a majority vote of the members present shall decide on the objection, and in such cases the vote of the majority shall be final.

XXIV. These by-laws may be amended by a majority vote of the members present at any annual meeting.

SCHEDULE OF DISTRICTS.

- (1) Stormont, Dundas, Glengarry, Prescott and Cornwall.
- (2) Lanark, Renfrew, City of Ottawa, Carleton and Russell.
- (3) Frontenac, City of Kingston, Leeds, Grenville and Brockville.
- (4) Hastings, Prince Edward, Lennox and Addington.
- (5) Durham, Northumberland and Victoria.
- (6) York, Ontario, Peel, Cardwell and Toronto.
- (7) Wellington, Waterloo, Wentworth, Halton, Dufferin and Hamilton.
- (8) Lincoln, Welland, Haldimand and Monck.
- (9) Elgin, Brant, Oxford and Norfolk.
- (10) Huron, Bruce and Grey.
- (11) Perth, Middlesex and London.
- (12) Essex, Kent and Lambton.
- (13) Algoma, Simcoe, Muskoka and Parry Sound.

REPORT OF DISTRICT (OR COUNTY) BEE-KEEPERS' ASSOCIATION No. _____ FOR THE YEAR ENDING DECEMBER 31ST, 18__

Members.		P. O. Address.	Number Colonies.		Honey Taken.		District or County Exhibitions.		Lectures delivered		Remarks.
Names of those who are members O.B.K.A.	Names of those who are not members O.B.K.A.		Spring count.	Fall count.	Comb.	Extracted.	Where and when held.	Amount and kind of prizes by O.B.K.A.	Amount and kind of prizes not by O.B.K.A.	When given.	

We certify that the foregoing is a true report of District (or County) Bee-keepers' Association No. _____ for the year ending 31st December 18__

Dated at _____ this _____ day of _____ A.D. 18__

President.
Secretary.

BY-LAW IN REGARD TO INSPECTORS, PASSED AT A MEETING OF THE DIRECTORS HELD AT THE ALBION HOTEL, TORONTO, APRIL 23RD, 1890.

I. Be it enacted by the Directors of the Ontario Bee-keepers' Association, and it is hereby enacted, that the remuneration for the Inspector for foul brood among bees, or sub-Inspector (as the case may be) shall be four dollars per day, while actually at work under the instructions of the President, and actual travelling expenses for railway and stage fare and livery hire.

II. The Inspector or sub-Inspector shall prepare and transmit to the Secretary of the Association a detailed statement of his work for the Association, such statement to be verified by oath, and to be in the hands of the Secretary at least three days previous to the Annual Meeting of the Association.

III. The Inspector and sub-Inspector shall conform to all the rules and regulations of the Association made for their guidance.

IV. The Inspector or sub-Inspector shall conform to the directions of the President as to disinfecting his person and clothing.

REGULATIONS TO BE OBSERVED BY THE INSPECTOR AND SUB-INSPECTOR OF FOUL BROOD TO PREVENT THE CONTAGION BEING CARRIED FROM DISEASED TO HEALTHY APIARIES IN CONSEQUENCE OF THEIR VISITS.

I. It shall be the duty of the Inspector or sub-Inspector to clothe himself in a disinfected suit, made of grey Holland before examining any apiary suspected of having the foul brood disease. If a bee veil is worn that must have been disinfected also.

II. It shall be the duty of the Inspector or sub-Inspector to wash his hands and face in a solution of corrosive sublimate in water, 1 to 1,000, after examining diseased hives. It shall also be his duty to wash in the same solution all knives, smokers, tools and implements used while manipulating such hives.

III. It shall be the duty of the Inspectors to provide themselves with a sufficient number of suits so that disinfected garments can be put on in every case before entering any suspected apiary.

IV. It shall be the duty of the Inspectors to disinfect those suits and bee veils by soaking them for half an hour in the above described solution in a wooden tub or earthen crock.

V. It is recommended that the suits above-mentioned shall include hats or caps made of grass linen or some similar material, which shall be disinfected with the other articles of clothing.
