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THE



CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. 2.

BRANTFORD, JANUARY, 1889.

No. 11.

The Canadian Honey Producer,

PUBLISHED BY
E. L. GOOLD & Co.,
BRANTFORD, - - - - ONTARIO.

Published Monthly, 40 cents per year.

TO CORRESPONDENTS.

The Subscription price of the Canadian Honey Producer is 40 cents a year. 3 subscriptions at one time, \$1.00 to one or more addresses.

Remittances for fractions of a dollar may be made in Stamps, Canadian or American. The receipt for money sent will be given with the address in the next issue of the paper.

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Always give both name and Post Office when referring to any change in subscription.

TO CONTRIBUTORS.

We will always be pleased to forward sample copies to any.

We will thankfully receive for publication items of interest to Bee-Keepers, and we would like to have every issue of the paper contain at least one good article bearing directly upon the management of the Apiary for the coming month.

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Cook's Manual of the Apiary, cloth, \$1.25	\$1.50
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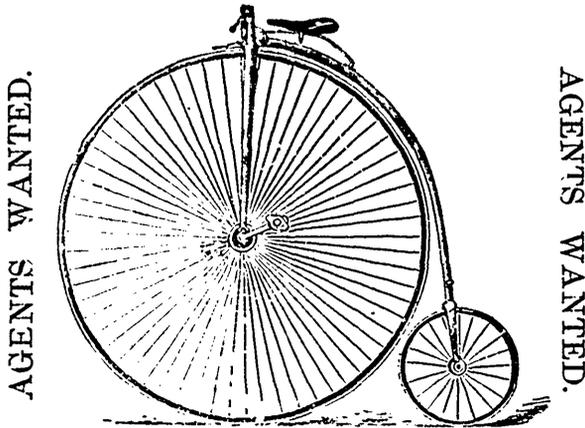
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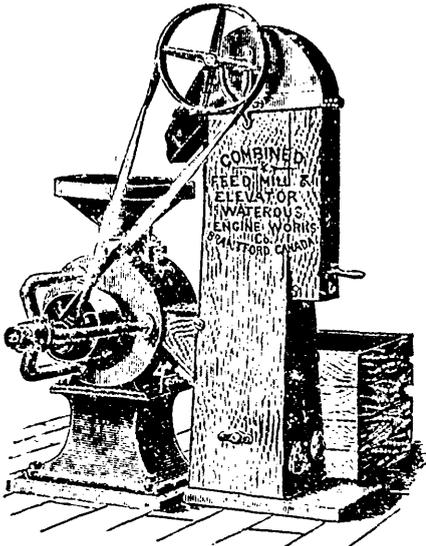
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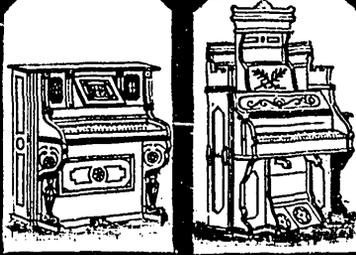
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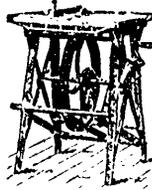
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THE CANADIAN
HONEY PRODUCER.

Vol. 2. January, 1889. No. 11.

The January number is a little late, the object being to give our readers an early report of the Ontario Bee-Keepers' Association Meeting. The attendance was very small but the poor season must account for this. There were about 20 members present at the election of officers; however the Association is in a prosperous condition and every credit is due the officers for the work done to increase the membership. The President has the qualifications of a chairman, and in the interest of the Association we must all support him.

We wish the association every prosperity during the coming year.

We regret that the next annual meeting will not be at Brantford, in union with the International; it was thought by the majority that the business of the Association could not be transacted properly.

Why has the names of two officers, amongst them the editor of this paper, been suppressed from the reports sent to two of the leading daily papers in Toronto. We have sent many a report of a convention, but have never done an act so dishonorable.

Mr. Corneil's paper was an able one and carefully prepared.

Our report of the North American Bee-Keepers' Association meeting has been reprinted in a paper devoted to bees and poultry. No credit has been given to the Canadian Honey Producer, it is probably an oversight but we like our friends to give us credit for our work. All are welcome to the report or anything else in our paper we are sure.

All our readers and every Bee-Keeper has our very best wishes for the New Year.

The Queen Breeder's Journal is upon the scene, its object is to advance that branch of Apiculture. We wish the publisher the success he deserves.

The December number of the *Review* contains an excellent portrait of its editor, W. Z. Hutchinson, also an account of the progress of this paper upon which the editor must be congratulated; sample copies of the number may be secured by addressing the editor at Flint, Mich., U. S.

In the December number of the *Bee-Keepers' Review*, James Heddon and Dr. Miller do not favor open-sided sections. R. L. Taylor, Oliver Foster and Dr. Tinker do favor such. We have heard much upon this question and must say the evidence appears to be in favor of the former. We are very apt to rush at new ideas. To the supply dealer it can make no difference, the four openings make them slightly easier to rip, the material to cut through being less; with a proper header the four openings can be taken out as quickly as the two.

The new edition of A. B. C. of Bee Culture is to hand, this edition numbers the 37th thousand. This book by A. I. Root Medina, Ohio, has a well established reputation and the last edition has many important and interesting additions. To one absolutely ignorant of bee-keeping a book not alphabetically arranged we should prefer, but to any one not absolutely ignorant the alphabetic arrangement is good. Every Bee-Keeper should have this book and one or two other works, just as he should have more than one bee journal; such an investment will amply repay him even if he has only a very few colonies.

We notice the Executive of the Central Farmers, Institute at its meet-

ing Dec. 22nd, resolved that the Secretary be requested to notify the Secretary of the Western and Eastern Dairymen's Association, the Ontario Creamery Association and the Fruit Growers' Association of the date of the annual meeting for the purpose of sending delegates to their annual meeting. Did this body not know of the existence of a Bee-Keepers' Association, or do they ignore this branch of agriculture?

Some queen breeders are trying to stimulate the virgin queen business; we have nothing to say in its favor for the average bee-keeper. Such queens are difficult to introduce to a colony and much loss will be occasioned by this method. Of course we would prefer selling queens in this virgin condition, it lessens the cost more than the reduction in price, but the results will not generally prove satisfactory. You have the risk of loss in introducing increased many fold. You have again the risk of loss in mating, and the queen may then mate with an undesirable drone, and if the prepotency is on the side of the drone, her value is depreciated more than half.

Annual Meeting Ontario Bee-Keepers' Association.

The above meeting was called to order by Pres. Emigh at the Council Chambers, Owen Sound, Tuesday afternoon 8th, 2 p. m. 1889. Amongst those present were Messrs. Emigh, Couse, Macpherson, W. F. Clarke, McKnight, Gemmel, A. Pickett, Corneil, Schantz, Anguish, Holtermann, J. R. Bellamy. Committee on programme appointed by President: Rev. W. F. Clarke, S. Corneil, and R. Mc. Knight.

The minutes were adopted after some slight corrections.

The Secretary's Report was then read and found showing that the association had made great progress during the past year, the membership numbering some 235, this was supposed to be owing to the premium of an Italian Queen for each member and the efforts of the officers. The Secretary stated that no

doubt owing to the bad year the number was somewhat less than it would otherwise have been. The Book Langstroth on the Honey Bee was not yet delivered, the delay being occasioned by fire in the publishers' office they (the publishers) expected the book would be out during the present month. The affiliated Societies, eight in number, had in some instances the majority of funds on hand.

The Treasure's report was carried, as follows:

RECEIPTS.

Treasurer from Mr. Couse,	\$429 40
Membership fees,	164 89
Government Grant,	500 00
8 Affiliated Societies,	40 00
	<hr/>
	\$1134 29

EXPENSES.

Grant to 8 Affiliated Societies,	\$280 00
Grant to Industrial Exhibition,	25 00
Salary of Sec'y.-Treas.,	50 00
Cost of Directors' meetings; Sundry Disbursements; Cost of Queens to Members,	\$323 54
Balance on hand,	\$455 75

of which \$200 is appropriated.

Report was adopted.

Auditor's report by R. F. Holtermann and John Miller received and adopted.

The report of Affiliated Societies by the Secretary, Wm. Couse, showed 104 members.

	Spring	Count.	Fall.	Comb.	Ex.
Listowell,	238	235	0	1000	
Mt. Forest,	282	356	895	2175	
Western Ont.,	569	535	2300	300	
Norfolk,	324	504	2645	7280	
Oxford,	626	696	1982	3383	
Brant,	402	476	2350	8500	
Haldimand,	276	286	0	0	

In the discussion which followed it was shown that the reason some grants had not been expended was that there was in some places no honey crop secured, and the affiliation was late in some instances and prevented proper arrangement with the Agricultural Shows in their district.

The matter of Affiliated Societies was referred to the Directors.

Mr. McKnight referred to the coming meeting of the International at Brantford, and he thought it was due to the Association that we should meet them in a friendly and hearty way and in strength. He would like

to move that a special general meeting be held at the same time and place and that delegates be appointed to represent the Association.

Mr. W. F. Clarke agreed with Mr. McKnight.

Mr. S. Corneil thought that it would not be necessary to call a special general meeting, but thought delegates should be appointed.

Mr. Holtermann stated that Messrs. D. Anguish, Barber and himself were there on behalf of the Brant Bee-Keepers' Association, to ask the Ontario to hold their annual meeting at Brantford at the same time as the International should meet. He would like to say on behalf of the International that that Association had waited fixing the date of meeting to try and meet the Ontario in any way possible. He thought the Ontario should meet for their annual meeting not a special general meeting.

Mr. Clarke and McKnight thought we were a legal organized Association and must retain our distinction; business would be slipshod, and the business could not be properly done. After some more discussion it was decided to leave the question for decision until the following day.

EVENING SESSION.

The President's address was read as follows: Bee-Keepers of Ontario, I can assure you it is a pleasure to meet so many Bee-Keepers here on this occasion. Notwithstanding the poor honey season we have just passed through we have many things to thank the giver of all good for.

We thank Him for the privilege of meeting here at this our annual meeting, and we thank Him for the past favors and bounties bestowed upon the Bee-Keepers of this province. We have reason to be thankful for the prosperity of this Association during the past year and for the unity that exists among its members at the present time. Our membership at present is 228 an increase of 78 over last year. For this your President claims no extra credit, but contributes the greater share of our success to your untiring and energetic Secretary, combined with the untiring efforts of your board to advance the interests of Bee-Keepers throughout the Province.

I heartily approve of the system we have

adopted of affiliating the county or local Associations with this Association, it will be the means of forming many new Associations and stimulating the weaker into greater activity, and will give a chance to distribute the grant throughout the entire Province and great good must be accomplished thereby. No doubt some of the local boards have not laid their plans this (first) year as they would like to have done, but taken as a whole I think it has been fairly satisfactory.

I would also recommend that a sum be set apart for the affiliated Associations, this sum be equally distributed among the Associations that are legally entitled to it and have become affiliated on or before the 1st of August.

The appointment of the Hon. Charles Drewery, (a practical farmer,) as minister of agriculture to administer to the wants of the apiarist as well as to the wants of the farmer, will no doubt meet the approval of all Bee-Keepers.

The Toronto Industrial Board that has given liberally in prizes, and furnishes ample accommodation to Bee-Keepers, that they might show their product to the world; should receive the thanks of the Association. There are also other Agricultural Societies that are giving bee-Keepers better accommodation than they did a few years ago, this with the assistance the affiliated Association will be able to give, will afford the Apiarists an opportunity to show their product to better advantage in future than in the past.

Now, in conclusion, let me say you will soon be called upon to elect your Officers for the present year. Select the men that have the interest of Bee-Keepers at heart, men that are too proud to do a wrong thing knowingly, and this Association will prosper in the future as it has in the past. Wishing you all a happy New Year and a more prosperous season than the one just passed.

A vote of thanks was tendered to the President for his able address.

S. T. Pettit's paper was then read.

PRIORITY OF LOCATION.

Its opposition, progress, present position and future use.

S. T. PETTIT.

About 2 years ago when this thought was presented at the annual meeting of the Ontario Bee Keepers' Association, the principle seemed to

be something of small value and but little notice was taken of it. Not long after, however, Mr. James Heddon called attention to it and wrote approvingly, but Mr. Jones thought it was a case of "the survival of the fittest."

Soon after this on page 1009 C. B. J. for 1887 appeared a characteristic letter from the pen of Mr. R. McKnight in which we find the following :

"There are some in the fraternity whose generosity would lead them to squeeze out the weak and the small. They would go still farther and circumscribe operations in rural districts by a new force known as "Priority of Locations,—root out big and little from towns and villages and put the business into the hands of specialists."

The new doctrine of priority of location is the most presumptuous of all the claims the monopolists amongst bee-keepers have yet hinted at. "Such a doctrine is begotten in selfishness and opposed to justice."

There now, who in the present age is bold enough to assert that Mr. McKnight is not an original and profound thinker? Listen, while I repeat the strikingly characteristic terms employed—"root out big and little," "the most presumptuous," "the monopolist," "begotten in selfishness! and opposed to justice." But just how leaving a man to enjoy his chosen locality without the crowding of bees other than his own, will so operate as to "squeeze out the weak and the small," and "root out big and little from towns and villages," I confess inability to comprehend and I suppose ordinary mortals will plod on just the same as though that composition had never adorned the pages of the C. B. J.

Amateur Expert writes, "And having done so, proceed to walk into some of the abuses he (James Heddon) so loudly denounces, and then walk into him if he talks of priority of location, etc., and it would all be in good humor." Why to be sure A. E. that is the proper way to do things. Then A. E. goes on to say "don't you know that we are free trader, and stout upholders of a fair field and no favors? or else how would the priority of location doctrine suit our Canadian brethren when they look for a share of our market?" Replying will state that I am willing to believe that A. E. has not given the subject

due thought, or else he would see that our purposing to assist in placing within the possible reach of England's millions of hungry and poor, who in all probability never in their dear lives have enjoyed the pleasure of eating so much as one pound of honey, is a very different thing altogether from squatting down by another already in the business, to the injury or disaster of both, the dissimilarity will be all the more conspicuous when we reflect that we have plenty of inviting unoccupied fields, and that England must look to the outside world for food or perish.—Plainly enough the two cases are not parallel and not comparable.

Mr. W. F. Clarke says, Priority of location is another matter which is attracting much attention among Bee-Keepers. It is proposed by some to pass a law securing to the first comer as a bee-keeper into a neighbourhood the exclusive ownership of the bee forage within certain limits. Well, I must say that if such legislation has ever been proposed or even hinted at, it has entirely escaped my notice. I cannot help thinking however that Mr. Clarke was drawing upon a much abused imagination when he penned that statement. But the President still believing in priority of location; in his annual address of a year ago, again called attention to it. Now permit me to give a few quotations to show that the principle has taken deep root in the better judgments of bee-keepers generally, the fruits of which will be sweet and refreshing to many in the business.

Mr. Allen Pringle says, As to who ought to engage in bee-keeping and who may engage in it. These are questions which each individual has the natural right to decide for himself, so long as he keeps within both the moral and the civil law. When the latter excludes him from corporations he has no right to violate it and when the former excludes him from preoccupied ground he has no moral right to violate that either.

From a dialogue between Prof. Cook and Dr. C. C. Miller at Chicago, N. A. B. K. A., I gather that Prof. Cook also believes in the principle.

Mr. D. A. Jones now, not only concedes to others priority of location, but advocates it as well; listen, "to me it seems that the question of priority of location bothers some

more than it need. There are those who make comparisons of bee men and store keepers, etc., but such comparison is not applicable." Then again he says, "with these points in view no practical man will seek entrance to a section of country already comfortably occupied."

And now we may rejoice in the fact that priority of location, backed up by sound public opinion "has come to stay" until the time shall come when in the march of progress on all sides apiculture shall receive that attention from the people and from legislators that its growing importance merits, and it shall be placed upon a legal and therefore upon a more solid and satisfactory basis; when justice through wise legislation can be done to all the people; and even then the principle of do unto others as you would that they should do unto you will be of service in the new order of things as an outside guard to watch and ward off the operations of unprincipled parties who may be disposed to appropriate that which belongs to others. And now in conclusion I will say, that because I have enjoyed the privilege of collecting the nectar from my neighbors fields, orchards and forests, for a dozen years and more, and that although during all these years I have done them good and not evil; that all this does not make me the owner of the nectar of future years—without a doubt in my mind it belongs to the owners of the soil, whose it is, and who have a right as a community, to control the disposal of it in a just and equitable manner, just as surely as they have the right to dispose of any other valuable product of the soil. But in the meantime let us all appreciate and rejoice in the security that the priority of location principle affords us. I am strongly impressed with the conviction that any Bee-Keeper who in future shall introduce himself upon preoccupied ground will realize that public opinion justly censures him.

Mr. McKnight said he had still to learn that a man had any right to his neighbor's honey as he understood it, if he planted an apiary he had first right to the nectar about there and he only, to this he took exception. If he planted an apiary on his property and his bees swarmed over it, it gave him no right.

Mr. Holtermann explained that Mr. Pettit had told him that he referred to the specialists in "priority," and the legislation referred to a tax or something of the kind on the specialists for collecting the nectar from other people's fields.

Mr. Corneil thought a paper should open up a discussion but not to create a controversy; his opinion should have been contained.

W. F. Clarke, said that Mr. Pettit's paper advocated legislation.

Mr. Holtermann—Is breeding in cellar objectionable? R. C. Smith and S. Corneil thought not.

OUTSIDE WINTERING.

F. A. Gemmell packed last September or early in October, about 1st of June he takes them out.

What is the best time to put bees into winter quarters?

Pres. Enigh, it depends probably much upon circumstances, he put his in generally after they have had one fly in November, before frost gets into the hive.

Mr. Holtermann, they appear to consume more stores if left out late.

Wm. Couse, circumstances alter cases.

Mr. Corneil, it is difficult to say; early in November.

R. E. Smith, put them in before cold frost.

Is it desirable to have such young bees early in the season?

D. Anguish, did not want young bees before setting out.

A. Pickett, pulled up just one end of the propolized quilt for ventilation.

S. Corneil, thought that it was of importance to ventilate the hive. Any sensible person, must admit that pure air must be better than foul! By turning up the quilt the air passed in an entrance and up at the opening above.

Mr. Corneil, advocated upward ventilation in wintering, giving numerous instances.

Mr. J. Miller, had at first killed his bees with kindness, later he learned better; again he changed to outside wintering, he wintered there now—dry hardwood sawdust about them for packing, and bees did not dwindle.

R. McKnight, for outside he had copied from Mr. Miller, only cases were larger, bees wintered inside, did not require more than 7 lbs. one year 5 lbs, those outside double the

quantity was consumed at least. There was more spring dwindlers with wintered indoor.

D. Anguish weighed bees for cellar, average consumption 6 lbs. ; for outside wintering, Root Chaff hives came out well ; he had not weighed them, the outside ones dwindle less in taking out. There was but little brood.

S. Corneil, thought that spring dwindling came from bad ventilation, as to wool cushion he tried one of wool and another cotton and found it greatly in favor of wool.

WEDNESDAY MORNING.

Pres. Emigh in the chair. Letters were received from Sir Chas. Tupper. Hon. A. M. Ross, and Thos. Wm. Cowan acknowledging and thanking the association for their election to honorary membership.

After some more business was transacted the election of officers took place resulting as follows :

W. F. Clarke, Pres.

Martin Emigh, Vice-President.

Directors. 1. None

2. J. K. Darling, Almonte.

3. M. B. Holmes, Delta.

4. Allen Pringle, Selby.

5. S. Corneil, Lindsay.

6. Wm. Couse, Streetsville.

7. A. Pickett, Nassayawaya.

8. Will Ellis, St. Davids.

9. D. Anguish, Mohawk.

10. R. McKnight, Owen Sound.

11. F. A. Gemmell, Stratford.

12. R. C. Smith, Tilbery Centre.

13. F. H. Macpherson, Beeton.

After another lengthy discussion upon place of meeting, Belleville was selected; time 2nd Wednesday and Thursday in Jan'y.

Moved by R. McKnight, and seconded by R. F. Holtermann, that this association have a special general meeting at Brantford at the same time that the International meet and that the Treas. and Vice-Pres. and directors be delegates on behalf of the association.

The meeting was then declared open for nomination and election of auditors. Mr. Macpherson proposed that the association elect one, the directors the other. Mr. Holtermann pointed out this was not constitutional.

Mr. Macpherson then said it was unnecessary that auditors be members and proceeded to nominate a bee-keeper not a member.

Mr. Holtermann pointed out this was not

constitutional. Mr. McKnight and S. Corneil supported Mr. Macpherson stating it was, but Mr. Holtermann stuck to the point as taken by him.

The Mayor of Owen Sound who had just welcomed the association to that place being present, and an eminent lawyer, Mr. McKnight proposed leaving the question to his decision at the same time jokingly remarking there must be no fee.

The Mayor in reply said the point was well taken by Mr. Holtermann and he was correct.

Messrs. W. P. Taylor, Fitzroy Harbor, and J. Miller, Owen Sound, were then nominated, the latter declining R. F. Holtermann was nominated and Messrs. Taylor and Holtermann elected.

The meeting adjourned until afternoon.

AFTERNOON, JAN 9.

Meeting called to order by Pres. Emigh.

Mr. Corneil gave his paper upon ventilations of Hives for Winter. Mr. Corneil had evidently gone to a great deal of trouble in preparing his paper and deserves a hearty vote of thanks for his work.

Air just breathed is saturated with moisture nearly blood heat, and deprived of available oxygen, it is poisonous, Mr. Corneil here showed in a gem jar mouth upwards that a candle burned. If breathed into the oxygen was lost and the candle went out for want of oxygen; our bees sometimes die for the same cause. Mr. Corneil illustrated the well known fact that lime water becomes milky through breathing into it.

Mr. Corneil said the breath of bees would be the same.

Mr. Cheshire claimed that the air in the hive must be changed every hour.

How best to secure ventilation.

Mr. Corneil again took the gem jar and by means of a perforated cork contracted the the mouth of the jar, the lighted candle now slowly died out, he again turned the jar on its side and divided the opening horizontally by means of card board and the flame burned brightly, when the card board is withdrawn it dies out, allow smoke to rise at lower entrance the smoke is drawn in but above the smoke is driven away. When not divided the two currents give friction and tends to stop the currents, this is why the candle dies out when the opening is not divided and the friction divided.

For the same reason when only one entrance and that a horizontal one at the bottom the hive is not well enough ventilated.

Mr. Corneil then showed a Langstroth hive with a rim under the brood chamber, the rim had at each end of rim an entrance one above and one below the rim. Mr. Corneil had a 2 quart pail with hot water suspended to warm the hive, and then filled the hive with smoke, by the upper entrance the smoke issued, from various other entrances he showed that the current passed from the lower to the upper and in order to ventilate the hive if one entrance is again divided horizontally it passes in at the lower part and out at the upper part as with the jar. By a rim lower ventilation is more easily obtained, the lower ventilator should be at the back. The friction of the currents is the great objection to a single ventilator. The upright entrance is best for ventilation.

Now as to upper ventilation that is air entering at entrance and passing upward slowly through absorbants.

The theoretic objection is, that the warm air passes off but many have well succeeded in that way citing instances; the entrance should be regulated by size of colony generally about 1 in. One had in honey board with hole 1½ in. with a tin tube to run to side of hive and then up. With a cushion on top this duct carries off the air slowly, Mr. Corneil illustrated again with the smoke.

Mr. Corneil showed in straw hive the smoke driven out through the straw as to the power of retention of heat he had found from experiment that it would let in heat longer then wood.

In reply to a question Mr. Corneil was in favor of the rim underneath, or if a closed cotton board rim above, ventilators should be at the ends of frames.

Pres. Clarke now took the chair, and a paper was read.

Bees for Pleasure and Bees for Profit, by Allen Pringle.

Mr. Pringle thought bee keeping paid best in connection with other pursuits, the last few years this had been shown; success must be worked for, the best bee for one may not be for the best bee for another, the best hive for one not for another. He advocated care in selling honey and doing all in a business like manner.

A communication was now read from I. Frith, Princeton, upon foul brood, who has been a victim of foul brood for three years, 1886, 1887, 1888. The loss in bees had been \$920. All within 4 miles of Princeton.

Martin Emigh thought that Mr. Frith had written to see what the Association could do about the matter.

The deputation from Brantford stated they were there on behalf of the Brant Association to urge that an Inspector should be appointed by the Association to investigate the apiaries of those advertising queens and bees for sale, and to see legislation to suppress foul brood. The matter was by a motion left in the hands of the board of Directors.

The President's address was taken up upon the Association going into the committee of the whole.

The date of clause No VII was changed from November to May.

It was decided that the board fix the sum affiliated Societies should receive from the Ontario Bee-Keepers' Association.

It was moved by R. F. Holtermann, seconded and carried, that the Secretary be instructed to communicate with the board of Directors of the Western Fair, drawing their attention to the fact that prizes offered for Honey and Bee-Keepers supplies was entirely inadequate, that there should be more cash prizes offered, and that diplomas were of no value to draw out exhibitors, and that in the estimation of the Ontario Bee-Keepers' Association it would be to the best interests of the Western Fair Board to do this.

TO BE CONTINUED.

Norfolk Bee-Keepers' Association.

The Annual Meeting of the Norfolk Bee-Keepers' Association was held in Delhi on December 1st, and was fairly attended. The following gentlemen were elected officers for the ensuing year:

- J. P. Ryder, President.
- C. McNally, 1st Vice-President.
- A. A. Wilkinson, 2nd Vice Pres.
- C. W. Culver, Sec.-Treas.

Directors, John Calvert, Joseph Budd, John Langohr, John Burke and T. Haimen.

The Summer report showed an average increase of about 45 per cent, with 10 pounds

extracted honey and 20 pounds comb honey per colony Spring count.

Mr. Calvert gave very clearly his modes of wintering bees, his loss has been about 5 per cent in large hives. Mr. Wilkinson spoke some on the care of bees in Spring. It was decided to get a lecturer to attend the next meeting which will be held in Simcoe on March 2nd.

C. W. CULVER.
Sec'y.-Treas.

Annual Meeting Brant Bee-Keepers' Association.

The meeting of the above Association was held at the Court House, Brantford, commencing at 2 p. m. Pres. Anguish occupied the chair.

Amongst those present were Messrs. S. T. Pettit, C. Flanders, J. R. Howell, T. Burkett, R. F. Holtermann, D. Phelps, Thos. Murray, O. McAllister, Geo. Morris, S. A. Dickie, John McIntyre, G. W. Barber, and W. R. Brown.

The question as to whether one of the takers of a prize offered by the association had done so under conditions specified was brought up. It was explained that the Agriculture Association had made the statement that they could. After some discussion it was moved by R. F. Holtermann and seconded by J. R. Howell, that the prize be allowed this year with the understanding however that another season such competition be disallowed.

The election of officers resulted as follows :

Pres. J. R. Howell.
Vice-Pres. T. Birkett.
Secy.-Treas. R. F. Holtermann.

Representatives for 1889 for the Ontario Bee-Keepers' Association, R. F. Holtermann and D. Anguish. Mr. G. W. Barber was also elected to put the views of the association in regard to several important matters before the O. B. K. A. at Owen Sound. It was then after discussion, moved by R. F. Holtermann, seconded by W. R. Brown, and carried, that representatives invite the Ontario Bee-Keepers' Association to meet at Brantford for their annual meeting in union with the International.

The first topic for discussion proved to be

foul brood. It appeared that none of the Brant Bee-Keepers knew of any care of foul brood in the vicinity, and all appeared very anxious to remain in that happy state of affairs, and were desirous to have steps taken to prevent the spread of the disease in Canada.

S. T. Pettit, Belmont, Ont., who was present was called upon to speak upon the subject and asked if the Ontario Bee-Keepers' Association was not doing something to secure legislation to prevent its spread.

Mr Pettit stated he felt foul brood was gaining such ground that something ought to be done to prevent its spread ; he had been at the Orford Bee-Keepers' Association and found there that the Secretary, Mr. Frith of Princeton, had after trying to cure foul brood and prevent it from spreading by almost all the methods advocated in the Bee-Journals destroyed above 100 colonies ; he was afraid to start again as a number in the neighborhood like himself had the disease. There were also reports from other parts of the Province and it was reported that a dealer in bees and breeder of queens of prominence had the disease off and on in the apiary now in order to exonerate one falsely accused and to find out those who knowingly or unknowingly had the disease and were spreading it or might spread it by selling ; he thought inspectors should be appointed by the Ontario Bee-Keepers' Association, who might and should visit apiaries which offered bees for sale and inspect the bees. If any one refused to permit such inspection the fact could be simply stated in Bee-Journals.

After some discussion upon the question it was moved by D. Phelps, seconded by R. F. Holtermann and carried, as follows :

In view of the fact that foul brood is reported as spreading in the Dominion, we would respectfully suggest that the Ontario Bee-Keepers' Association appoint inspectors to go through the country and report the condition of all apiaries, those selling bees or queens, also to ask the Ontario Legislature for legislation to prevent the spread, and cause as far as possible the extermination of the disease.

Mr. Phelps in introducing the question of ventilation of winter repositories said, it would appear that many Bee-Keepers believed that bees did not require ventilation in these

repositories, he had in consequence stopped up his ventilator and without any bad effects, apparently his cellar had not been built very tightly.

Mr. Pettit said he believed the reason so many reported as they did, was because their cellars were not built tightly, and of course a cellar which was constructed loosely might benefit by the stopping up of a ventilator. His cellar however had been built very carefully and under his supervision he thought the cellar was almost water tight, then it had been dug in a very hard clay soil which came up level with the top of the stone wall. There was a pipe 215 feet long and in places 6 feet below the surface. The outlet stood above the ground several feet and the pipe had a drain underneath to prevent it filling up with water. The atmosphere as it entered the cellar varied in temperature depending upon the wind and outside temperature. His cellar was generally from 38° to 40° he favored that temperature; the bees did not breed then and appeared to come out in a vigorous condition. He found with the temperature from 40° to 48° more bees died, they consumed more stores and would breed more.

W. R. Brown stated his cellar was very dry, it ran from 35° to 37°.

Mr. Pettit stated it would make a difference if more or less covering was put over the frames, as if more, the interior of the hive would be warmer.

D. Anguish thought that the soil about the cellar had much to do with the proper temperature.

Mr. Pettit stated that the ventilation should be regular, and if possible either in inside or outside wintering not be changed, he knew several instances where loss had been occasioned by not bearing this fact in mind.

R. F. Holtermann stated his bees in the cellar appeared to be wintering well. The cellar generally stood from 43° to 45°, the old quilt and four thicknesses of old bagging was over each hive. When looking in at the entrance the bees appeared to be clustering very quietly, they not having even broken cluster to clean out what few dead bees there were. The meeting adjourned to meet at the call of the President and Secretary.

For the Canadian Honey Producer.

CELLAR VENTILATION.

S. T. PETTIT.

Nearly every body and weather too, go to great extremes; and now the no ventilation theory is approaching its outside limits, and I predict that it will soon begin to oscillate in the opposite direction.

Since perusing the October number of that excellent periodical the *Bee-Keepers' Review*, I have been somewhat troubled at the opinions set forth against the necessity of ventilating bee cellars, and the more so, since it seems to me that the Editor puts it rather stronger than these well written articles do justify, but possibly my judgment is at fault; let us glance at them and see.

Dr. C. C. Miller the first on the list with his present knowledge believes in and advocates sub-earth ventilation and fresh air.

From Oliver Foster's article I extract the following statements: "Too much ventilation cannot be given at any time, providing the air is of proper temperature when it enters the hive. I have a cellar with a sub earth ventilation 100 feet long and 24 inches square." "With 200 colonies in the cellar they often need all the ventilation the facilities will allow."

Mr. H. R. Boardman is very decided that bees do not need much air in the fore part of the winter, hence he has abandoned his special arrangements for giving ventilation: but he says as Spring approaches brood rearing is again resumed which is attended by an increased activity of the bees and a rise in the temperature. This condition calls for an increase in the supply of air. Farther on he says, "I sometimes give free ventilation at night, or when it is cold outside to lower the temperature if it gets too high." In this connection let me say that when bees are oppressed by the suffocating influences of foul and polluted air, they kick up a decided racket and get hot over it, but a constant very gentle flow of fresh air through a properly constructed sub-earth ventilator (no sensible currents) keeps all quiet right along that is if the cellar is right and not over filled with bees, and thus brood rearing can be held back until very late in Spring.

J. H. Martin says:—"My bee cellar is

provided with a sub-earth ventilator, but I have discontinued its use. I also have ventilators opening into an anti-room, these I now keep closed." And now notice what he says immediately after, "The ventilators from the bottom of the cellar up through the roof are of more importance. A gradual draft draws off foul air, and there is no cellar made so tight but it will allow enough fresh air to enter around doors, windows, etc.," don't you see he believes in a gentle draft and fresh air. Again he says, "A slow draft and moderate circulation is the most conducive to an equal temperature and quietness." Again he says, "I have thus a definite plan for the ventilation of the bee cellar. I have also a definite plan for the ventilation of the hives."

It appears to me that Mr. Martin is a pretty strong believer in fresh air and ventilation.

We next come to the article of J. M. Doudna; evidently there is something wrong about the construction of his cellar or ventilating pipe or both when "the frost got in so badly."

Prof. A. J. Cook and Mr. J. Heddon express themselves as being pretty thoroughly convinced that ventilation for its own sake is wholly unnecessary—good authority and strong witnesses I cheerfully admit.

Mr. R. L. Taylor says, "I reason that the matter of ventilation is not of very great importance, because after trying different plans and many different degrees as regards the amount of air admitted I have not been able to see that the manner in which the bees were wintered was affected thereby, at least so far as the final results was concerned," but just a little farther on Mr. Taylor writes as follows: "For some reason which I am unable fully to explain I have occasionally found my bees in the cellar greatly aroused. At such times and when they become uneasy towards Spring, the opening of an outside window for an hour or more has a quieting effect." Just so, and I believe that such is the experience of the craft generally. Some give fresh air simply to lower the temperature, but the bees do not care to enquire into the motives of their keeper; the fresh air relieves and comforts them all the same.

I have reason to believe that a properly constructed and properly ventilated cellar

with attention and care from the Bee-Keeper, will keep bees in good health and quiescence and with very little or no breeding until the middle of April or later in this latitude—a very desirable feature in wintering.

Belmont, Ont., Can., Dec. 14th, 1888.

Read at the New York State Bee-Keepers' Association Convention, held at Syracuse, Dec. 11-13th, 1888.

Essential Points of successful Wintering of Bees in the Cellar and on their Summer Stands.

The subject upon which you have requested an essay is one as difficult as it is important; one which should receive careful attention and experimentation by Bee-Keepers.

As I understand the subject, it means the way to winter our bees so as to consume the least possible amount of stores and with the least possible loss of vitality. It may not be out of place to briefly enumerate what may effect these desirable ends, and I shall largely leave it to the experience of those who are in convention as to how far they do effect, and how far the conditions are under our control.

1st, Stores, quality, quantity, position in the hive, and if sealed or unsealed.

2nd, Temperature, its variations, Those variations within a given time and how regulated.

3rd, Moisture and ventilation—their effects at different seasons.

4th, The colony: its numerical strength, age of bees when going into winter quarters, their remaining vitality, and the strain of bee.

5th, Pollen or not pollen in the hive.

6th, Time of setting bees in cellar or putting them in clamps.

7th, The time to commence brood rearing; and the time to take the bees out of winter quarters.

As to stores, in our climate there is perhaps nothing better as a food than syrup made from the best granulated sugar, and yet when we take into consideration the increased quantity of honey thrown upon the market, the unjust suspicion it gives rise to that bee-keepers are "making honey;" the additional labor to the bee-keeper, the loss

in weight between food given and amount stored in combs, and the certainty that through the excitement the bees lose in vitality, experience says to us, *feed sugar syrup no more*. I cannot say if buckwheat and other grades of honey we know as inferior, are as good as the lighter grades for winter stores or not. This I know, they often appear to be as good. This is a point which might be investigated to advantage. Stores should doubtless be sealed; yet in a cellar with a temperature tending to be high this is probably not essential. The centre of the cluster should I think not have combs of honey, but the combs be free for the bees to cluster in, the full combs being towards its outside.

As to temperature, who will dare to tell us the best temperature at which to keep a cellar, if it should remain stationary all winter or increase or decrease as the time for taking out approaches. Who will tell us if a rise or fall of temperature within a few hours is injurious; who will tell us this with certainty. I know bees appear to winter well with a temperature from 45° to 50°, and with very gradual changes, but is it the best? So many theories have been advanced; so many satisfactory results given under apparently opposite conditions that we are loath to accept any of them as definite, and the subject must be carefully investigated with the conditions otherwise equal.

Of moisture and ventilation, I know nothing definitely, having seen bees appear to come out equally well with the cellar apparently perfectly dry, and with everything about it saturated with moisture. With sub earth ventilation and without, with provision for ventilation and without. We must however remember that we may be very much deceived in this matter; at 70° there may to the ordinary observer be no indication of moisture, yet the atmosphere may be almost saturated so much that at 65° everything will become covered with moisture. Again in winter the great difference between the outside and inside temperature is very great at times, and the pressure of the cold air from without very great upon the warmer atmosphere within, so much so that a greater or less current of atmosphere must be constantly passing in, and I often think that this

explains why bees so often become very restless towards Spring when the outside and inside temperature are more alike and the ventilation of the cellar lessened. The remedy of course is making provision to allow more fresh air into the cellar.

The bees themselves as to numerical strength, disposition and vitality, have doubtless much to do with the question. I believe that a colony properly prepared may winter well even if it is not what we call an average colony. However much depends upon the remaining vitality of the bee, if it has become queenless early, and they are all old bees which have gone through perhaps months of anxiety on account of their queenless condition, and the owner sends off at the eleventh hour for a queen and adds to the expense sufficient food for winter. I should say he will probably be able to report the loss of this colony by Spring at least. I destroy such a colony and until I have more light recommend others so to do, *the risk is too great*. In a colony long queenless combs almost filled with pollen are often found. These should be removed in any case, I abhor an abnormal condition of a colony during the latter part of the season as being liable to unsuccessful wintering. A colony which has had a vigorous queen and has not many bees but all young, has good chances for wintering. As to the age of the bee we do not know. Probably a fully developed vigorous bee is sufficient, and here let us remember when comfortable, not working, and with conditions normal, the colony ages very slowly, and to count the strength of a bee by its age is very misleading. The strain of bee doubtless will make a difference. There is no difficulty in controlling this on the female side but practically we can in the honey bee only aim at securing certain blood upon the male side.

I cannot say anything about the pollen theory, only if it is correct is it practical to remove all pollen from the hive. For me there is too much manipulating about it, and next if we decide to do this we must decide that we do not want bees to start rearing brood until they can fly out and gather pollen if in clamps, or if in cellar until they are taken out. I am by no means prepared to say this. And this brings us to the last heading, and the one upon which we have by

no means the most light and definite information. Some now say, set bees in cellar early in October and the latest advocate says, January; theory would lead me to say put them in before the frost can possibly penetrate the hive and carry them in at a time when the outside temperature is if anything a little higher than the inside. Stimulative feeding for brood rearing I have practiced but now condemn, for Spring and Fall you may gain a few young bees, but you stimulate the old to death; nature pretty well regulates this matter, when bees through work wear themselves out, they rear brood, when they cease working and husband their own strength they do not require to raise brood. As to the time we should set bees out, I do not know. I should say when I think we have something like settled mild weather.

In conclusion, you will see there is much that I venture only an opinion upon, and out of it all how many of us can positively say we know this or that method is the best. And how it should speed us on to investigate, to be open to anything which might give us light, and to be ready to communicate to others through the press what we are learning.

R. F. HOLTERRMANN,
Brantford, Canada.

The Farmer's Advocate.

QUIET FOR BEES.

Many are the differences of opinion as to the best mode of wintering bees, but all agree that they must be kept quiet during the season that they cannot leave their hive. If kept on their winter stands in clamps or sawdust hives, or without any other protection than the single walls of the hive, they should be so situated that they will not be disturbed either by man or beast. Jarring the hive awakens them, makes them gorge themselves with food, and unless they can get a fly shortly after they are apt to get the dysentery and perish, or at least become so weakened that in spring, dwindling sets in. Mice often prove a fruitful source of disturbance; they get over the frames where it is warm and comfortable, the heat rising from the cluster below; sometimes they do not seek to go below; but often they do, and they get down into the combs and live on the fat of the

hive. The bees being continuously disturbed, perish. I have made it a point for years, to put something to destroy mice in the clamp hive and cellar: the object being to get it in a place that the mice can get it when approaching the hive, and it can do no injury to other animals. Flour, sugar and arsenic mixed is effectual, but the great objection is the very deadly poison. "Rough on Rats" is good, put on pieces of bread in the cellar or above the packing of hive or clamp. The mice are likely to reach it first thing. The cheapest, least dangerous and best poison for rats and mice for this purpose or any other is, however, a mixture of flour and plaster of Paris. Put it upon a saucer; the vermin eat it, and it forms a solid cake in their stomach, and they of course perish.

FOOD.

As the honey season has been poor there will, no doubt, be many colonies deficient in stores, and many perish from starvation. With those in clamps or outside but little can be done, as the first indication of their condition will be that they are dead on the bottom boards and on the combs. With those in the cellar, however, it is somewhat different. If the hives are watched, the bees will be seen at the entrance and on different parts of the hive in a restless, and sometimes half-dead condition. Such a colony may be saved by sprinkling a thin syrup lightly over them, and when they have entirely recovered, giving them either candy made for the purpose or a solid cake of sugar, placing it in either case over the frames and under the quilt. A cake of sugar may be made by boiling the best of sugar with a small proportion of water. When thick enough to become hard when cool, it can run into moulds and cooled. The best moulds can be made out of boxes, one to two inches deep. The boxes are lined with clean white paper, which is laid into them loosely, and is of one piece. The paper adheres to the sugar cake, and does no harm, permitting the box and cake to separate. Of course the sugar cake should be placed, sugar down on the hive.

Sugar candy, which is probably no better than the cake, is sold by supply dealers, and made from the best of sugar. It is made by

constant pulling whilst cooling, as taffy, and finally drawn out in sticks. The advantage is that it crumbles somewhat when warm, and gives the bees ready access to it; yet it never becomes soft and runs. Any bee-keeper can make it for himself. With all winter feeding there is great risk through disturbance, and if many other colonies must be disturbed to attempt to save one, that one had better be left alone, as it is liable to perish from being disturbed, and you may injure others that would likewise be good.

The majority are of opinion that bees should remain in a very equal temperature, and if any variation takes place it should be very gradual; rapid changes being very dangerous. Last winter an experiment was however tried by G. W. Demaree, an eminent American bee-keeper, which gave results very different from views generally held by bee-keepers.

He claimed that bees remained naturally in a quiescent state, and at intervals during the winter they aroused themselves from this state, consumed a certain amount of food, and then sank back into the quiescent state. Acting upon this opinion, he several times took several colonies into a warm room and brought them into a thoroughly active state, from which they lapsed into the quiescent, and were returned to the cellar. The bees, he reports, came out in excellent condition, and he wants others to try the experiment this winter. Of course anything so revolutionary should be tried on a very small scale, and results carefully noted. One would not want to stake their all upon such a venture. The season thus far has been mild, and outside the consumption of honey must have been unusually great. The constant arousing from repose to activity draws on stores and exhausts vitality.

Rendering of Bees Wax.

In the American Bee Journal, under the above head, G. T. Hachenberg, M. D., says:

I have tried different methods of rendering wax, and some that cost me a good deal of money. I must humbly confess that this wax business had been the "sand in my bread." Finally I made a sun wax extractor, and was pleased with the purity of the wax it afforded

me. But for an extensive apiary it is a process too slow and uncertain. The fault with a sun extractor is that the solar heat may be sufficient to melt away surface wax, but it lacks penetration (as wax is a poor conductor of heat), and unfortunately a heavy body of it will not melt away before the rays of the sun as would a cake of ice. And another defect is the loss of heat by conduction.

To meet in a measure the above difficulties I took a good sized store box and knocked out two connecting sides of it; these I covered with two glass windows. Inside of this box I placed a large hotel tin-tray, that I have, with a sufficient incline for the melted wax to run off. The wax enclosed was exposed to the direct rays of the sun, and as it melted (by a process too slow for me) it was received in a tin basin.

To improve things I placed a kerosene lamp burning rather low, within the large vacant space of the box—not to heat the tray as much as to compensate for the loss of solar heat by conduction. By this operation I increased the flow of wax a hundred fold, and it was as free from impurities as if the sun alone had done the work. The advent of cold weather put a stop to these operations, leaving me several hundred pounds of wax unrendered. I dumped the whole into a large water tank heated by a furnace. After the mass was all melted down, cooled, and rid of all the substrata impurities, I remelted it in dry heat with a high temperature, leaving the melted wax to run through a close wire strainer into hot water.

CIRCULARS RECEIVED.

G. M. Goodspeed, Thorn Hill, N. Y., U. S. A clubbing list of leading Journals.

E. H. Cook, Andover, Conn., U. S. Clubbing list of leading Journals.

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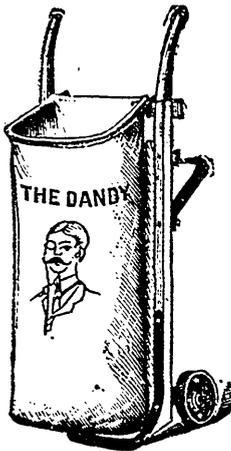
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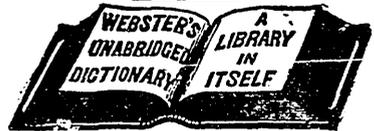
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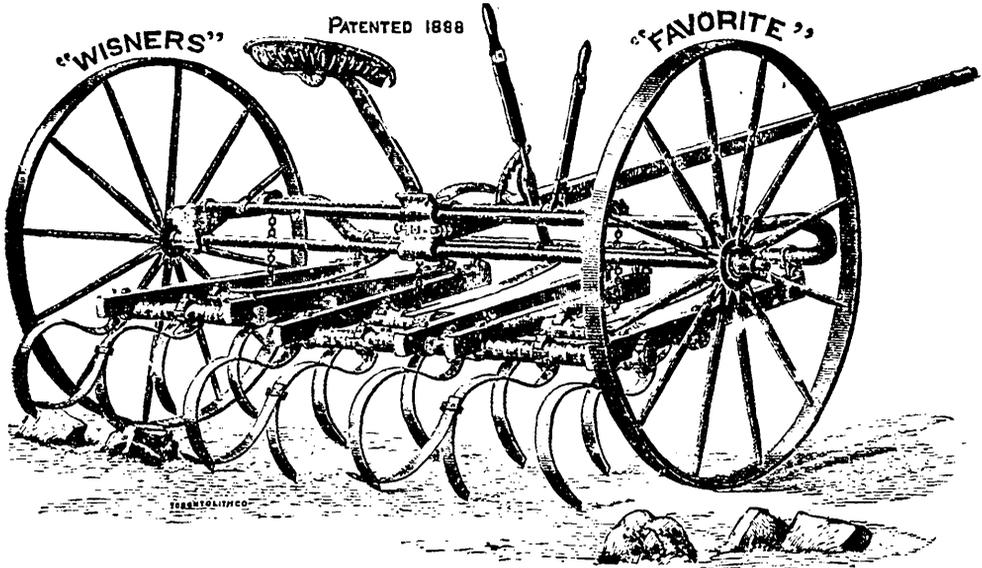
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