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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES
VOL. III, No. 1.

BRANTFORD, ONT., OCT., 1895.

WHOLE
No. 368

YOUR subscription expired with number 367. A prompt remittance will oblige Goad, Shapley & Muir Co., Lt'd., Brantford, Canada. The October number of the Canadian Bee Journal is 368.

Convention Notice

The annual meeting of the Lambton Bee Association will be held at the Johnson House, in the town of Petrolia, on Nov. 23rd. Everyone interested is requested to attend. J. R. KIRCHIN,
Sec.-Treas.

A number of subscribers sent their renewal money last month; they have our thanks for the prompt response. From six to eight hundred more have failed as yet to re-
We Can Stand mit and we ask this noble
Fire. brigade to respond to our command with alacrity and fire the amount due at our devoted pocket. We are fully prepared to stand fire very courageously. We have put a lot of hard work and hard money into the JOURNAL and feel we are entitled to prompt payment of all subscriptions. Friend in arrears, what do you think about it?

* * *

We must ask the indulgence of our readers this month for the late appearance of the JOURNAL and for the absence of the usual editorial department, owing to the serious indis-
A Sick Editor. position of Editor Holtermann. He was taken ill while attending the Montreal Exhibition and narrowly escaped an attack of fever. but is now, we are glad to say, on the road to recovery.

MR EDITOR.—I was astonished at seeing the reports of the failure of the honey crops in western Ontario in the last number of the C. B. J.

In this vicinity (near Kingston, Ontario), we had probably a two-third crop, and that all No. 1 honey.

I wintered 180 out of 181 colonies put into winter quarters last fall. But bringing through such a large per cent. is not enough, they must be strong enough to be of value to run for honey. Last spring they dwindled badly, so much so that they had to be united until there was only 94 colonies left, which were run for extracted honey.

The first swarm issued on the 1st of June. They began to store clover honey on the 5th. Had 51 supers on the 7th and on the 10th the hive on scales gained 9 pounds.

The basswood bloom was extra early and short. It began to open on the 4th of July. Hive on scales gained on the 4th, 4½ lbs.; on the 5th, 12 lbs.; 6th, 14 lbs.; 7th, 18½ lbs.; 8th, 13 lbs.; and on the 9th less than nothing. Thistles did not yield any surplus. Finished extracting with 7,400 pounds of No. 1 honey and 65 pounds of wax. Increased the colonies to 146.

R. A. MARRISON.
Inverary, Sept. 12th, 1895.

NORTH-AMERICAN Bee-Keepers' Association

TWENTY-SIXTH ANNUAL MEETING,

Held in the Normal School, Auditorium, Toronto, Wednesday, Thursday and Friday, September 4th, 5th and 6th 1895.

PRESIDENT R. F. Holtermann, Brantford, Ontario, Canada, in the chair.
Mr. G. W. York, Chicago, Ill., read a letter from Dr. Miller, chairman of committee on freight rates.

The Chairman—I may say I regret Dr. Miller could not be with us. He is not here on account of indisposition. Mr. York might kindly tell us what territory that classification covers.

Mr. York, the Western Traffic association—I think it covers from Colorado on the West to New York on the east, and as far south as Kentucky. I do not think it effects Ontario. I will say Kentucky on the south and Canada on the North.

The Chairman—You will see that we have had some very important concessions, and now that we have gained it in the west, there ought to be no trouble in getting the same concessions in the east. The Eastern association sits on September 20th. We have had communications from them through the Grand Trunk freight agent, and that association will decide our own territory here.

Moved by Mr. J. B. Hall, Woodstock, Ont., seconded by W. Z. Hutchinson, Flint, Mich., that a vote of thanks be extended to the gentlemen who have acted on the freight committee, for the work they have done for the association in the west and south, and that the report be accepted.—Carried.

President's address was laid over till next meeting.

PROPER SIZE OF A BROOD CHAMBER.

"The Proper Size of a Brood Chamber and How It Shall Be Decided."—James Heddon, Dowagiac, Mich., (read.)

In response to your request, Mr. Secretary, to pen an essay for this great convention of bee-keepers, upon the subject of the best size for brood chambers. I think it my duty to avoid reiterating the many wise and otherwise statements of my brother bee-keepers that have appeared on this subject in our numerous bee-journals, during the last two years of radical discussion of the question.

You will remember the logical arguments and deductions that have been made on both sides. One successful honey producer would plead for large brood chambers, and then prove beyond controversy that a large brood nest was an absolute necessity at a certain time of the year, if the best results were to be attained. His argument was never answered nor never could be, but the attempt was made to controvert his claim that large brood chambers were best, by showing that at another time of the year a small brood-chamber was likewise a necessity to best results. This last proposition was as clearly proved as the first, and I am pleased to enjoy the great pleasure of saying that, in my judgment, both are right, and yet either is wrong when he claims that the other is wholly wrong.

It is not plain to be seen that each one of the contestants is right in the most of his claims, and for that reason the controversy seems no nearer to an end than when it began? I am sure that every thoughtful honey producer is forced to the conclusion that to attain best results a brood-chamber must be elastic. It must be so constructed that it can be readily and practically made to embrace the radical advantages rightly claimed by both the large and small brood-chamber adherents. It was the dawning of the knowledge of this truth that caused Father Langstroth

and other early inventors to suggest division boards, and two prominent reasons why these contractors never were universally adopted, was first, because many bee-keepers are neglectful, and second, the practical honey producers who were not, abhor complication and tedious manipulation although experience proved that the advantages of changing brood-chamber capacity at various times of year, cost about all it came to, yet the fact that such capacity must be changed, if we are to realize the most from our bees, still remains. I think it would be bordering upon assumption, for me to rehash what has already been so well said upon this subject in our bee-journals during the last two years.

I believe that locality, of necessity, makes a difference with regard to the best size for the brood chamber, upon the same principal that conditions changing with the season change their adaptability; but I do not believe that locality makes as much difference as some have contended, nor as much as a change of seasons, and conditions in the same honey field.

When, with the rest, I thought I must be contented with the use of a brood-chamber the capacity of which remained the same throughout the year. I settled upon eight L frames as best, as splitting the difference between being too large at one time and too small at another. I have never changed that conclusion. I will admit however that some other size might average best in other localities. I cannot conceive of any sound argument in opposition to the almost self evident statements herein made; nor do I believe there are many, if any, practical honey producers present who would care to take an opposite position; but if I am in error in this, I trust that I have said just enough to lead to an interesting discussion of the topic, and yet I cannot think what will be said that has not previously been said in our late literature.

Mr. S. T. Pettit—I believe if I was going to adopt the Langstroth hive, I would not take eight or ten, I would take nine. I think we have the very best of results from that kind of hive.

Mr. J. B. Hall—This man has got a frame they call the Langstroth frame. I am using two frames, both of them Langstroth, frames. One is 10½ inches deep, and the other is 5 inches deep, inside measure. These hives are both right, the one for comb honey, and the other for extracted. If you have your apiary away from home have a big hive so that you can go and see your gul, if you have no wife. If you have a

wife and have a small hive you must keep it at home because it has to be looked after oftener.

Mr. William McEvoy—I think the best size is about 2,000 cubic inches.

A member—I am using the Langstroth hive. I think it contains about 2,200 cubic inches. I use nine frames, and have had good results from them. I used the 10 frame at first, and I found I did not get so much surplus as I do now. I can get plenty of winter store in the 9 frame, and I do not think it is necessary for any more—10 inches deep, 13½ inches wide and 18 inches long.

Mr. Hall—This gentleman is blessed with a fall flow. My bees want 30 pounds of honey to winter them nicely, and if we have a hive that size, and honey flow shuts down in July as it does with me, a hive that suits that gentleman's location is death to me.

Mr. A. E. Hoshel, Beamsville, Ont.—It is not often I have a chance to differ with my good friend Hall, but he says he has no honey flow after July. I do not believe he is a bit worse off than I am myself. I may have got six, seven or eight hundred of honey after that date on one or two occasions; the rule is that I get none. Mr. Hall is speaking for a hive that will store sufficient in it before that date to carry the bees through the winter. That is a point I have always opposed straight, because the conditions in any hive, which favor the storing of honey in the brood chamber in order to carry them through the winter, that is, during the honey season, destroys the best conditions for the storing of honey itself.

The Chairman—You calculate to feed regularly every fall?

Mr. Hoshel—I calculate to feed regularly every fall; that may seem to some people a big undertaking. To me it is one of the simplest and easiest operations of the year.

Mr. Hall—Eight miles from home?

Mr. Hoshel—At home. If I had it eight miles from home I would do it the same, because I would consider the right conditions existing during the honey flow would more than pay for the trouble. My honey flow only lasts four weeks, and I have got to make the best of it when it is on.

Mr. McEvoy—I see they are drifting into the question of the amount of honey that would be likely stored for winter. As far as I can see it all depends on the occasion and the party that handles it, and I still think that about 2,000 cubic inches for the brood chamber is about right.

Mr. Hoshel—I do not say what the size of the brood chamber should be, but I do

claim that when we enlarge or make the brood chamber larger for the purpose of having honey stored in it to carry the bees through the winter, I think it is a mistake. I use the Heddon hive and have for years past. It has 10 frame capacity and a double brood chamber. It is sometimes called a small brood chamber hive, but remember we never extended it to 10 frames unless by some hook or crook. We can get this 10 frame full with brood during the time the honey flow is on, and work the honey from the brood chamber above.

Mr. J. B. Hall—They get it full of brood, and about the 10th of May you have a hive with a capacity of any more than 10 pounds of honey, you are going to get the honey on top of it every time. There is no place to put the honey in the brood nest, and it must go into the sections; therefore, it is not the size of the hive, it is your bees and the locality. I have a Heddon hive, and I have used the Quimby hive, and I must say one is as good as the other, and they are both the best.

Mr. Hoshel—When I am speaking of a 10-frame capacity hive, I do not mean to say it is the best, and I do not mean to say it is wrong. Generally, when they are speaking of a large brood chamber hive, the argument advanced is that we can get honey stored in it to carry our bees through the winter, as though that factor were an argument in favor of the large brood chamber. I claim it is not. If with our large brood chamber hives we can get that full of brood, it is all right, but when we calculate having them large, with the view of having them filled with honey, I say then it is a mistake.

Mr. C. W. Post, Trenton, Ont.—I run entirely for extracted honey, and I prefer the 10-frame Langstroth hive.

Mr. J. B. Hall—Have you any experience with the 11-frame?

Mr. Post—No, I never went over 10.

Dr. A. B. Mason, Toledo, Ohio—I use the 3-frame Langstroth, and I expect to get my honey above, not in the brood chamber. My bees do not fill more than 8 frames. When I say 'fill' I mean 'fill.' I work for extracted honey.

Mr. J. Walton, Scarboro Junction, Ont.—This is an old question, and I think, all intelligent, progressive bee-keepers know the size of hives best adapted for their locality. Ours is a very large hive. The frame is 12 inches deep by 18½ inches long, and held 12 combs, and we can always get the honey yield if there is any honey to be got. Fifty miles north of where we live the Langstroth hive will do just as well as with us. Our honey flow is very short, it is over within a few weeks. Our hive is big and we have lots of honey after the flow

is over to do the bees till the next spring. I am in favor of a good big hive for our locality.

Mr. McEvoy—We can make the hive as big as we like by tiering up and up, as far as that is concerned.

The Chairman—The opinion seems to be that what is right for one man may not be right for another.

Mr. J. B. Hall—We have swarms of bees from these delicate little hives on the 30th of June, and we have taken 220 pounds of finished sections off the top, and they have been in condition for the winter without any feeding. It is not the cost of the sugar and the trouble of giving it to them, but fools do not know, they think the bees live on nothing. They do not know that the bees have to eat to live through the winter, and they think we are trying to palm off sugar syrup as honey.

Mr. Hoshel—I may state on that point I always feed sugar in the fall unless I have something in the line of honey that I cannot do anything else with. I have fed sugar for a long time, and I tell everybody I see about it, and I will challenge Mr. Hall to come and sell honey under my nose, unless he sells it cheaper than I do.

On motion, Mr. Moyer, of Toronto, was heard on the question of marketing honey. He spoke as follows:—"We are handling honey in this city. We believe in handling specialties. We have been in business now going on seven years. We find that the people in the cities require educating the same as you are educating one another on this bee business. I believe I am safe in saying that the majority in the city do not know anything about honey and how to use it. When we first started to use honey all we could sell was 5 cents worth at a time for medicine when the children had sore throats. When we got in 400 or 500 pounds of honey, and some of our customers saw it, they would say: "When in the world do you expect to sell all that honey?" This was four or five years ago. We now find that we sell five hundred times as much as we did the first year, and we attribute this to the fact that we did a good deal of educating. We talked about the honey when people came in. I read up as much as I could about the food, and I told the people what it was worth as a food, and instead of people going to the store asking for poor rotten butter, because they could not afford to buy good butter, I advised them to take honey and give their children bread and honey, and I told them they would grow fat on it. I found the people knew so little about honey that we had difficulties of all kinds. We had comb honey and extracted honey. The people in the city are suspicious

and it took a good deal of explanation on our part to get them over their suspicions. We sold comb honey 15 cents a pound and extracted honey 10 or 12 cents. They thought the extracted must be adulterated or it could not be sold so cheap. I told them it took the bees so much longer to make the comb than the honey, and I explained how it was done. Nearly every grocer in the city handles honey, and I am sure most of them do not sell more than 10 pounds a year. They would rather not handle it. They buy a little honey and it gets hard on them, and they then think that it is adulterated because it all goes to sugar. We have had customers come back and say the honey was no good because it all went to sugar. We told them to heat it up and it would all go back again. I think it would be a good thing for you to advertise in the city, so as to educate the people as to what is the real value of honey as a food, as I believe that small stores, instead of helping to introduce the honey, are an obstacle in the way, for they keep it till it gets dirty and people do not want it.

Mr. Couse—I would like to ask how much honey Mr. Moyer can handle in a year.

Mr. Moyer—I think we have retailed between four and five tons over the counter. We handle far more, but some of the stores get it from us. A great many of our customers now buy it in ten-pound pails.

Mr. Hoshel—Some years ago he says he only handled a little of it. I was sending in at that date to Mr. Moyer in the neighborhood of a ton or twenty-five hundred weight every winter. I quit it because the prices in this city were below what I was getting elsewhere. Another point I want to make concerning honey sent into this particular market. My experience is that nothing but a first-class article should be sent here. I tried this market once with a second grade of honey. The bee-keepers who ship to Quebec know that you can send almost anything there that is in the shape of honey. As long as a bee has looked at it they will buy it. Here you cannot pan off that sort of thing, it is useless to try it.

Mr. Pringle—I was just going to observe that it is hardly fair to talk about palming off second or third grades of honey. Honey is all pure. Buckwheat honey is as pure as clover honey. Of course, it is inferior in quality in the opinion of some people and is certainly darker in color, but nevertheless it is pure honey, and if we sell buckwheat honey or golden rod honey or honey of any kind in any market, we certainly are not panning it off. We give a genuine article—of course at a less price.

The Chairman—Don't you think that when you go east there is more buckwheat

honey produced, and the people down there are accustomed to it.

Mr. Pringle—That is a fact. There is much more dark honey produced in the east than in the west. Some of our western friends go so far as to say that bees will not winter on buckwheat honey. We have been wintering our bees on buckwheat for several years. I manage before the buckwheat season comes on to take away all the light honey and keep the buckwheat honey by itself, and I allow the bees to fill in with the buckwheat honey for the winter. I agree with Mr. Hall in having the brood chamber for a brood chamber. I do not believe in extracting from the brood chamber, except in exceptional circumstances. Get your honey above, whether it be section honey or extracted honey.

A member—Perhaps there is more buckwheat honey produced in the country than people are generally aware of. I know that all along the northern part of Lake Erie from St. Thomas east, there is a large quantity of buckwheat honey produced, and I do not think we ought to go against taking that to cities and educating the people as to what it is, because it certainly is a good article. There are very many people prefer it to other honey. For my own part I prefer it to Linden or clover honey, there is no doubt about it. I think it is altogether a mistake to say anything against buckwheat honey. Those who produce it do not get the same price for it as white honey, but nevertheless it is a good, pure, legitimate, healthy and praiseworthy article.

Mr. J. B. Hall—Palming off is not the term. Don't you know they have had an exhibition of honey for the last ten years at the Toronto exhibition, and don't you know the best honey in the world has been shown to the people of Toronto, and don't you know they are fools enough to want the best, and won't have anything else, and don't you know in Quebec they get a lot of this honey this gentleman has been speaking of, and they eat it. I was talking to a lady who got a lot of buckwheat honey and I asked her what she did with it, and she said she sold it. Do they like it? They cannot get anything else. You give them that pure white stuff, and they say that is sugar, therefore it is the education. These fellows below don't have the beautiful exhibit that you do in Toronto, and therefore they are satisfied with it as they get it.

A member—I want to say right here, in my experience that I produce buckwheat honey and white honey, and the two thirds of my home customers take buckwheat honey.

Mr. Hoshel—I don't believe in misrepresenting things to people, and I did not intend to leave the impression that buckwheat honey is second-class honey. I prefer the buckwheat honey myself for my own use. Buckwheat honey is more likely to be poor honey than clover or basswood is. It is the last that is gathered in the season. The weather is cold and the colonies are small, and they are not in shape to ripen up that honey like what they gathered in the earlier season. Possibly that which is gathered in the first of August may be ripened, but along sometime about the middle of September it is apt to be left unfinished, and hence the buckwheat honey is more likely to be inferior than other honey.

A member—Mr. Hoshel is decidedly wrong; buckwheat honey is so thick you can hardly throw it out of the combs.

A member—How much buckwheat honey does Mr. Coggshall sell?

Mr. Coggshall—Several hundred pounds.

A Member—What sort of customers have you, and what do they do with your honey?

Mr. Coggshall—They take it and eat it.

Dr. Mason—I could not do that in my locality. There is only here and there one who would take buckwheat honey, but, as Mr. Pringle has said, it is as pure as the other.

A Member—Many a year I have been pleased that there was no buckwheat honey in my section, for I would not know what to do with it.

Mr. Couse—I have had considerable experience in the city of Toronto in selling honey. There is one thing in particular that seems to be necessary in order to sell honey, and that is cleanliness. I have often called on my friend M. Moyer, and I have not the least doubt but what the cleanliness of his establishment has a great deal to do with the fact of his selling so much honey. There is no doubt that the people in Toronto are becoming educated in honey. One day I was on Gerrard street delivering some honey. School had just come out and several boys passed me, and said: "There is a honey man! There is a honey man!" How did these boys know when they did not see the honey? Just by the man, I suppose.

A Member—Mr. Moyer suggested the idea of educating the people. I live near Toronto, and I agree with the other speakers that a lot of honey is sent in a very unmarketable way. We have good honey all around Toronto. I believe we have a locality producing honey second to none in the Dominion. I have seen honey set up in stores with the honey dripping down

over the counter, and I have seen it in old rusty tin pails and had it offered to me at a low figure.

The Chairman—How about honey granulated, and streaks of it up the sides of the bottle. Do you think that is commendable?

A Member—No, I do not. In extracting, bee-keepers cannot be too careful, and we should put up our product in such a way that it would be a credit to bee-keepers.

A member—I think we ought to show more granulated honey.

Mr. J. B. Hall—I have shown granulated honey in the city of Toronto for nine years, and the people of Toronto have put me down as one of the biggest liars in Ontario.

Mr. Darling—There was a remark made a little while ago by Mr. Hoshel in words something like these: "If you send honey to Quebec it can be sold if the bees only look at it." I do not know whether the Province of Quebec has anybody here to stand up for her. I do not like the remark, and it is not just true. I do not wish to place it in harsh language. We have people in our sister province who understand what good honey is as well as we do up here, and I can name individuals who have shipped honey to Toronto and it has lain there for two years and then been shipped back again because it was not fit to sell. Perhaps some of you, having heard what Mr. Hoshel said, and having a lot of bad honey on hand, might shut it down there, and perhaps you would not get the freight for it. A good deal of the trouble in marketing dark honey is that it is not ripened well, and I believe Mr. Hoshel has come pretty near the truth when he says it is gathered late in the season and it is not ripened. I know that buckwheat honey when well ripened is a very thick firm honey. I had some very dark honey two or three years ago that weighed fifteen pounds to the gallon. I think I can produce some this fall nearly as heavy as that, and I will state this, that the honey that is thick and heavy is not nearly as strong in flavor as that which is thin and soft.

Mr. Hoshel—Perhaps I ought to correct the statement that anything that bees have looked at will sell for honey in Quebec. Of course, I did not mean that to be taken literally, I simply meant that second quality honey will sell down there better than will here.

The Chairman—This is a very important subject, and I do not think bee-keepers anybody have done their part in educating the public in the direction of consuming honey. I am perfectly sure in the city of Toronto we could sell 100 pounds where we are selling one pound to-day, and the trouble is that we do not unite sufficiently in doing

it. When it comes to one or two men attempting to do that work, it is a heavy task. If we would unite and bring before the public through the papers the value of honey, we could do a great deal, and we will find that the papers are only too willing to assist us. Our own town of Brantford is not in a district where buckwheat honey is produced, still we find that it is a matter of education. Last year in one store we sold nearly 2,000 pounds of buckwheat honey, and that was the first time that buckwheat honey was attempted to be sold.

The matter of Mr. Benton not furnishing a full copy of the report of the last convention, was brought up and discussed fully by the association.

Moved by Dr. Mason, seconded by Mr. Calvert, that the matter of last year's report be referred to a committee to investigate and report to this convention. — Carried.

Adjourned.

Thursday, Sept. 5th, 1895.

Convention opened at 9 a. m. President in the chair.

PRESIDENT'S ADDRESS.

In the few remarks to which I shall confine myself I would say, that looking upon bee-keeping as an occupation we are making progress in many desirable directions. There is still with some, unfortunately, a slight tendency to belittle bee-keeping by giving the impression that any one can keep bees and succeed with but little capital, no experience, no labor; and others we find who, if they do not express it, have a lingering thought in their mind that the advantages of the occupation and the experience of able men should not be presented. All this we are leaving behind us, and we are emerging, in fact standing upon a broad and liberal platform, our industry being recognized as a wealth producing power of the country; and we can be justly be proud of our occupation. Much has been said, and much has been conceded along the line of the interesting study of the marvelous honey bee. The study of its life's history has thrown open to scientific men some of the most beautiful laws in nature, in that way increasing our reverence for the Creator of all things who has set these laws in force. But we cannot emphasize too much the facts that bee-keeping may offer an opening to many in rural districts, who otherwise have to resort to the city unable to find profitable openings in the country with the capital in hand; that bee-keeping displaces no other crop on the farm; that in taking the honey crop it takes nothing from the fertility of the soil; that bees are great pub-

lic benefactors in the polonization of flowers, and that day by day as investigations are being made, importance is being added to the honey bee in its relations to plant life; that honey is one of the best and most economical of foods. While we state these and many other facts we might in justice point out, that it takes care, experience, and time to succeed in bee keeping, that it is a legitimate business, and that the cost of the production taken from the price at which the honey is sold, leaves but a moderate margin of profit to the bee-keeper.

During the past season the most of us have passed through trying times, very few indeed have made a living. The United States, as well as portions of Europe, have had a very light crop, probably after leaving enough for winter, no crop at all. In Canada, some districts such as British Columbia, Northwest Territories, Manitoba, in Ontario along the Ottawa River, and North-western Ontario have done well, but unfortunately in these portions, bee-keeping is engaged in by but few. As to our own organization, the "North American Bee-keepers Association," it has been claimed by some that it is not sufficiently representative. This is perhaps true, and yet it is the most representative body of bee-keepers on the continent, meeting here and there, north, south, east and west. It undoubtedly has had a comparatively small number of members, yet many have faithfully and steadily supported it throughout, and when we come to a term of years it embraces a very large membership. During the past year the Association has conferred a lasting benefit upon bee-keepers and railroads. The committee appointed by this organization succeeded in getting important concessions from the Western Classification Committee, and other districts will no doubt follow in their own interests. As an Association and as individual bee-keepers we might do more to draw attention to the value of honey as a food, and in other ways increase the consumption of one of the healthiest and most economic of foods. Fear of adulteration has much to do with the limit of consumption. As bee-keepers, we must use every means in our power, or that can be put within our power to convince our customers that honey is a sweet with essential oils added, distilled by nature's laboratory, and gathered from the fragrant blossoms in the fields and forest. If we desire to gain ground or even hold our own in the markets of the world, in this matter bee-keepers must stand shoulder to shoulder.

In closing, I need not point out that this is an age of Conventions, where man to man we can discuss the great and minor

questions affecting our calling. We are not supposed to see eye to eye, but we meet together to discuss methods, to pass resolutions, to convince and be convinced by every honorable means in this discussion. The greatest freedom of thought should be permitted without in tone, manner or words, allowing personal feelings to creep in to mar the pleasure and utility of our discussion, ever remembering that we should never act contrary to our highest conceptions of duty. To side with error and wrong against our best feelings or keep silence in the presence of injustice which should excite indignant denunciation is as wrong as it is to throw out insinuations as to motives and accusations for which there is no ground but the imagination.

We have before us an excellent programme and I have no doubt with the complexion of this convention that it can will be one long remembered for its generally pleasant and harmonious feeling, vigor of discussion and the valuable points which it has brought out, a portion of which in the present stage of Journalism will reach the home of every thinking and reading bee-keeper on this continent and in other lands.

Moved by Mr. Hall, seconded by Dr. A. B. Mason, that the president's address be accepted.—Carried.

RAISING COMB HONEY.

The Surest Best Way of Raising a Crop of Comb Honey."—B Taylor, Forestville, Minn.. U. S.

There has been poor honey crops here, (Southern Minnesota) for five seasons in succession. Six years ago we had the greatest crops on record, and for 25 years previously a good crop was about as certain as the seasons, providing proper industry and skill was used. Then there came a change. Minnesota had in all the years previous to 1899 been regularly blessed with abundance of rain-fall in the growing season, and generally with much snow in the winter. Farm crops of all kinds flourished, wild flower plants struggled for room in every waste corner, and the flowers wet, reeking with nectar. But for the last five seasons there has been a great lack of rain-fall in the summer and fall months. Vegetable growth was checked and farm crops became less certain, the carpet of green that clothed our landscape in the fall months was turned to brown often in the early months of summer. The white clover that lined our roadsides and pastures with silvery whiteness began to disappear more and more with each returning season. Trees began to be scrimped in growth of leaf and blossom until in the fall

of 1891 stately oaks and other trees withered and died for lack of moisture. The honey crops began to wane and the bees wintered with less certainty each year. Skilful aparists that were able to still secure some surplus began to be the ones who had the worst luck in wintering the colonies, and the less skilful who got no honey, the most successful. But now, old time conditions seem to be returning, good rains continue to come in regular order, and the brown earth is being again clothed with a carpet of green and gold, and the colonies of bees are increasing in weight in a way that promises better times for 1896 for the aparist, for the bees will now raise brood until late in the fall and the hive will be stocked with young bees at cellaring time that will not die of old age before young bees can be raised next spring to take their place, and the hives will also be well stocked with natural stores, so we need not be doctoring the colonies with artificial feed.

I begin to fear that whenever we have to begin doctoring our colonies for any reason, trouble is not far away, the outlook is then hopeful and we have resolved to raise a big crop of comb honey in 1896 if life and health permits and the present hopeful conditions continue. If we succeed we will have to have our colonies strong in bees. When white and alsike clover blooms again, about June 1st, next year, and we shall begin at once to utilize present opportunity, be sure to have the bees. As we have already indicated, we are quite certain we can winter with certainty in almost any kind of hive, provided it is filled with a large colony of young bees and plenty of natural sealed stores at the commencement of winter and we give intelligent care as to winter quarters and this we will give by putting our colonies into a dry, dark, well-ventilated cellar and keeping them at a temperature as near 40 degrees as possible. Each colony will be covered with a soft felt sheeting paper or quilt of two or more thicknesses below or cotton sheeting and these fastened down tightly to the top of the hive (the corner being removed) so as to retain the natural heat of the bees, for I am now convinced by repeating experiments that the colonies should be covered warmly even in the cellar. We will let the bottom boards of the hives remain but will have a wide entrance (the entire width of hive, both front and rear left open. The bees will be put into winter quarters when real winter has apparently come. We have some second swarms that come late, these will at once be supplied with honey combs and natural stores which we have in stock

regardless of the flowers yielding fall honey, for we want these young colonies to be stimulated to raise all the brood possible, and this they will not do if stinted for stores. These second swarms will make our best colonies for next year. This fall we will give strong colonies all the supers of sections filled with full sheets of moderately heavy foundation. They will partly or wholly draw out, and if any brood hives should be light in stores when these cases are removed, we will give them heavy combs of honey to make them rich in winter stores and spring food for raising early the army of workers that are to gather a great crop of clover and basswood honey next year. The sections of honey made this fall will be extracted, and then set out some afternoon so that the bees may clean them of every particle of honey. During the winter and spring these combs will be levelled to uniform thickness on a comb leveler, and then returned to the section cases with one of our slotted handy separators between each two combs and then set in a proper place until ten days before clover blooms next year, when we will put one case on each strong colony. Previous to swarming in these cases, the bees will have no combs to build and they will fill them as speedily as a set of extracting combs. The sections will have the combs built solid to them on all parts and the honey will be very white and the combs the smoothest you ever saw. If we do not have enough drawn combs to hold our crop, we will use full sheets of foundation in sections to supply the deficiency, putting the sections with foundation in the centre of the super and drawn combs on the outside. Next spring, as soon as there is a fair prospect that hard winter is passed, we will move our colonies to the summer stands. Each will be examined on the first fair day after they have had a good fly, to ascertain the amount of bees and stores and to know they have a queen. These colonies will be in our handy hives of 10 frames of 100 inches of worker comb, each 1000 inches of straight worker comb and with not 2 square inches of drone comb in any hive will be supplied with combs of honey if lacking in stores. United with others if queenless and then covered warmly and then left in quiet unless something should call attention to some particular hive when special attention will be given it. After some of the colonies have become strong in bees we will put an extra hive filled with worker comb under them. This doubling of hives will be done for experiment to ascertain if this enlarging of brood room will give better results in comb honey than single hives.

But the most of our colonies will be in single hives, and near the time when white clover blooms, as has been mentioned, all strong colonies will be given a super of prepared sections and the section room increased as needed by putting other cases under the partly filled ones; and swarming prevented by plenty of storing room will do it, but no other means will be tried to prevent swarming. When a colony swarms (which it generally will do) they will be lived in one of our small handy hives on eight empty frames with starters in them only. The two outside frames will be filled with dummies, this will reduce the hive to 800 inches of comb space. I will hive on the starters only providing I do not care to increase my colonies, for I know I can get more comb honey by hiving in an empty brood chamber, but if I should conclude I wanted to increase my colonies, I will fill the frames with full sheets of worker foundation on horizontal wires so the foundation cannot stretch at the top and make drone comb of it, for with me a large cell, however made, is sure to be filled with male brood if any, and I cannot afford to raise drones in my small hives, (they are equally unprofitable in large hives) but whether I use empty or frames of foundation the hive will be contracted to 800 inches of comb space. The new hive will be set where the parent colony stood, the supers will be removed to it, the old colony set on the vacant end of the double stand with its entrance turned in the opposite direction and the new swarm hived in the new hive which will then be given all the cases of prepared sections they can fill until the end of the basswood honey season, near the end of July, when all the cases of sections will be removed to the iron house where the cases will be set on end with one inch space between them, so the air can circulate through them freely. Here they will remain some 60 days at a high temperature and plenty of circulating air and the honey even in the increased cells will become so thick as not to leak, even if left lying on its side. If we conclude to increase our colonies, the parent hive will be removed to a new stand the sixth or seventh day from swarming. This will reinforce the new colony, and increase the yield of surplus honey. After the honey is properly cured it will all be crated in one grade only and be of such quality as to stand first in any market. The crates will be made of light, clean smooth wood and paper and they will not leak and will be so light that a 15 section crate will weigh empty but 2½ pounds. I have shipped honey prepared as above in 200 pound lots 700 miles and with three

railway transfers without breaking a single comb. But this big crop we are going to raise in 1896, we will sell by our own personal exertion in our own local market if possible, and past experience in this field has been such as to make anything in that line seem possible, for we have made peddling nice comb honey pay when every store was crammed with it and no seeming market at any price. I expect to have to take a low price for honey in the near future at least whether the crop is large or small, but I am going to deal directly with consumers and give them the benefit of low prices. The sharks and speculators have captured all the public markets, have destroyed competition and inaugurated a system of telling the producers of food what they will pay for things, and the consumer what they must give for them. Brother bee-keepers, let us sell our goods in our home markets, direct to consumers where possible.

Mr. J. B. Hall.—I see only one thing lacking in that paper: that is that the writer of it is not present because I want to learn how he is going to get this big crop in 1896.

Mr. Ira Barber, Decalp Junction, N. Y.—I endorse a large portion of this paper, there are some points I think Mr. Taylor will learn he is going to fail on. We will find that old bees can be wintered as successfully as any in a proper temperature. I do not think he or any other man can winter bees successfully at a temperature of 40 degrees; old or young. To learn something of how cold 40 degrees is: to take a glass of water at 40 degrees and drink it; has anyone an idea that a bee can be comfortable at a temperature of 40 degrees.

Mr. S. T. Pettit.—I rise to emphasize to correctness of Mr. Taylor's paper 40 degrees temperature and an opening in front and an opening behind, there is just one thing I would improve on Mr. Taylor's method. I would elevate the hind end of the hive about three inches, otherwise Mr. Taylor's plan on wintering is exactly in accordance with my own. Remember this point when the cellar is 40 degrees if you have it fixed as Mr. Taylor points out a cushion on top; there is the hive and the cushion and the bees inside, bear in mind that the temperature of the hive inside is not 40 degrees they are in a hive and are warmer there. I have experimented all the way from 38 to 46 and I claim 40 is as near right as you can get it. My bees come through the winter practically the same as they went in the cellar, last winter I wintered 87 in the cellar and they all came out alive.

Mr. Ira Barber.—Is your cellar dry or damp?

Mr. Pettit.—Our cellar was wet till last winter. I had a wet and dry bulb thermometer in the cellar and that indicated saturation, and the walls were constantly running down with water; the cellar floor I put the bees in was dry and had cracks in it, and before I took my bees out this floor was all damp and the cracks closed up. That dampness was destroying my cellar and so I had an opening made in the top it is now dry. I can winter bees as successfully in a damp cellar as in a dry one and a wet atmosphere always becomes dry when the temperature rises.

Chairman.—Mr. Taylor seems to have no doubt about wintering bees and seems to feel quite confident he can winter them.

Mr. Barber.—In my locality the honey season closes early in July and by the first or middle of August the brood season ceases entirely and I have wintered these bees just as well as where they continue to rear bees till October, so that I know old bees will winter in proper condition just as well as young and remain all right and active and through the spring season as well.

A member.—You claim that when the bees are not working they are not losing vitality, Mr. Taylor makes a big point of young bees. Last year we had a fall flow of honey and they never wintered poorer than they did that winter. Speaking of a damp and dry cellar I tried two or three times to winter bees in a dry cellar and I never had the bees quiet a single moment in such a cellar with temperature of 45.

Mr. W. A. Marrison, Inverary.—It does not matter about the moisture in the cellar if the temperature is not less than 45 to 50 in the cellar and enough air to cause quite a current of air.

Dr. Mason.—I think it does make a difference, whether the air is moist or dry I have not lost any colonies for over six years and my cellar is dry and temperature from 40 to 50, the bees are all quiet although they are sometime out on the front of their boxes. They will hang on the outside of the hive just as nice and well as can be and when you speak of dry or wet cellars I think each one is speaking for his own locality.

Mr. Pettit.—How many hives have you in the cellar?

Dr. Mason.—I can winter any number up to 200 the most I have had in it was 150.

Mr. J. B. Hall.—As the doctor says the location has more to do with it than anything else, I have wintered in a dry cellar 12x12; 6 feet high, containing 150 stocks of bees and it was the most successful winter I had ever had, the cellar used to stand

52 and I could not get it any lower and it was a continual hum, if I held a light to the bees they would not stir. I raised mine up two inches in front. The bottom of my cellar is cold and I put two barrels of sawdust in the bottom and kept the bees from touching the clay. Last year, and the year before my bees wintered perfectly and came out of the cellar stronger than when they went in. Last year my cellar did not get lower than 45 and did not get higher than 50. I have two chimneys running into that cellar, one taking the atmosphere from the very ceiling of the cellar and another from the very bottom.

There were old bees going into winter quarters they did not breed that July. They were old in age but the vitality was there. You could go into my yard last fall and you would think the hives were empty, the bees stayed at home. My friend raised his two inches at the back I raised mine two inches at the front. The top is hermetically sealed. The temperature has very little to do, with it, moisture is the same, it is the food, sugar syrup or honey? Good honey and enough of it and letting alone that is the principal part of it. If one or two be wrong let it be, meddling with them will simply destroy more than you save. Those who have a damp cellar do not cry, or those who have a dry cellar do not cry. When I first moved to a small house I did not put my bees in the cellar I put them in a bedroom off my living room the temperature ranged from 82 to 62 and I must say I never had bees winter better than that year. There was a chimney in that room with a stove pipe and an elbow and it let in ventilation without light. We want pure air and lots of it for our bees. If we shut of all ventilation we find we have more than the contented hum.

Moved by Mr. F. Benton, Washington, D. C., seconded by Mr. Allen Pringle, Selby, Ont. That the Rev. Dr. L. L. Langstroth of Ohio, who is expected here at this meeting be received by the society standing and that he be conducted to a seat of honor.
—Carried.

G. M. Doolittle—Mr. President, brothers and sisters. It looks to me as though we were forstalling the next subject, the subject under discussion is "the surest and best way of raising a crop of comb honey," and we have gone back to wintering. I would say that first of all to produce a crop of comb honey we want a man that understands his business, we want a man who has enterprise and energy enough to leave no stone unturned that will produce to him a crop of honey. I say it is far easier to produce a good crop of honey than it is to make a man suitable to produce that crop

of honey himself. and show me a man who prefers idling away his time sitting around some hotel or some country store rather than to be daily in his bee yard and I will show you a man that surely will not produce a good crop of comb honey.

Mr. J. B. Hall—Mr. Doolittle lives in the section of country that has a fall flow. I have kept twenty-three years and have had only one fall flow. I cannot very well follow Mr. Taylor's instructions. The first requisite for comb honey is floral flow, second the man, and lastly the hive.

Mr. Pringle—The first requisite must be floral flow, and I say the second must be the bees, for I say the bees might get the honey out of a hollow tree.

Mr. Barber—I always keep comb honey in a dry, warm, airy room.

Mr. G. M. Doolittle—Comb honey can be so kept after it leaves the hive that it will be continually improving. I once kept a section for three years and it was far better at the end of that time that it was when taken from the hive; honey kept at a temperature of from 80 to 90 degrees, no matter if the cells were all unsealed, will be continually growing thicker and better in flavor. The same honey stored in a damp cool place will gather moisture and deteriorate in every way. If thoroughly sealed and ripened, two months of such exposure will find it leaking out and becoming a souring and sickening mass. There is only one alternative with comb honey if we wish to send it to the market in proper shape, and that is to keep it in a dry, warm temperature.

Mr. Barber—I slip in a good, large, healthy spider, and every wax worm that hatches out, the spider is after it and it is always all right, the spider will take care of it.

Mr. R. McKnight, Owen Sound, Ont.—Some nine years ago I got a practical lesson I shall never forget, in keeping comb honey. It is always safe to keep comb honey in a dry warm place, but I am convinced that comb honey can be kept perfectly in a humid atmosphere; I had that experience in 1886, in London, during the month of November. Every one who knows the character of the climate there, knows it is very damp and foggy, and in addition to that we had a water bath for the purpose of liquifying the candied honey, and the vapor from that bath permeated the room. Cases that were well and tightly made, as they ought to be made, passed through that month of November in the city of London in perfect form and perfect color. One of the secrets of keeping comb honey is to have your cases tightly made, and you

need not be particular about the condition of the atmosphere.

Dr. Mason—I think it gets thicker and heavier with age. I noticed some I had just a short time ago that was made in 1892; I brought it home and set it in the closet off our sitting room where it was quite warm, and I noticed it has become white where before it had a watery appearance. It seems that the honey has receded from the capping. I have been selling it right along and it seems to me the older it gets the better my customers like it.

Mr. McEvoy—To keep comb honey right, it should be kept in a warm room for at least two months after taking from the hive. Never keep in a cool or damp place, because the honey swells and comes against the capping, and oozes out and has a watery appearance, and will be really only second class honey. you cannot sell it for a first-class price, it will granulate, and in a back country place where comb honey don't sell well the only thing to do with it is, to melt it up and make wax of it.

Mr. Marrison—I use a label in shipping honey that I put on the packages cautioning as to storing, never to store in a cellar or back shed; and the reason is, because the interior of the bee-hive is always warm and dry; if otherwise, both bees and honey will spoil.

Mr. Geo. Spittler—Eleven years ago this summer, I took off some very nice $1\frac{1}{2}$ lb. section, white clover honey. I had just been starting in bee-keeping, and I thought I would lay away some of honey and keep it. Every year we have succeeded in having white clover honey on the 4th of July till this year; we always make a point of having white clover for the 4th. This is the first summer I never put the supers on since I had bees. A few weeks ago we had some company from the Eastern part of the States, and we had no comb honey for them, so told my wife to get a section of the honey that was made up. We had not touched any of it before. The whole family pronounced that honey the finest they had ever tasted; a few of the outside cells were granulated, those that had not been capped. When I first put that honey away were living in a log house; when we built the new house we put it in the buttery where it was dry all winter.

The Chairman—Ladies and gentlemen, members of the North American Bee-keepers's association, everyone knows Rev. L. L. Langstroth, the father of modern bee-keeping, and the great pleasure which we anticipated of meeting with him, we can now realize. I have great pleasure in meeting with the Rev. L. L. Langstroth.

Mr. Langstroth was received by the audience standing and cheering.

Rev. L. L. Langstroth—Twelve years ago I was in Toronto at a bee convention, and warmly received by the bee-keepers, and that was the end of all the insinuations of stealing and bribery and corruption. After the reception I received here twelve years ago, nobody lifted their tongue to say anything against me, except the poor man, whom I forgive, because from the bottom of his heart he desired to speak the truth. Now I thank you, dear friends, for your kindness, which is more to me than gold or silver or anything else. It is to know that I have the respect and the confidence and the love of so many good and strong men and women. (Applause.)

I commenced three years ago publishing my reminiscences, but was interrupted by the trouble I have in my head. They will be resumed and probably published in book form, and I need not enter into anything of details. I thought perhaps you would be interested and amused to learn some of the history of the introduction of the Italian bees into this country by Mr. S. B. Parsons, of Flushing. Mr. Parsons was intending to travel in Europe with his wife, and the Commissioner of Patents gave him a sort of roving commission to see after any new plan he thought would be useful to introduce, but particularly to get possession of the Italian bees. Mr. Parsons knew nothing about bees. He was a great florist and had a large nursery, and is a man of taste and genius, and a good man and an honored man in every way. He got to Europe and he fell into the hands of Mr. Hermann, with whom he made arrangements to get possession of these Italian bees. He first bought eight or ten colonies in that district where they were said to be the most pure. He had them transported on the backs of mules over the mountain passes, and they were carried safely to Genoa, where he intended to depart for this country. They were in old log hives, and the mouths of the hives were covered with strong canvass to confine the bees. Well, they had borne the mule-riding, they bore the transportation by sea, and they got safely to New York city. Now what do you think he did? He had them carried in rough carts over the rough stones in New York city, and a great many of the cones broke down. He did not know enough to know that he was doing something that was wrong. When he got them he said, "What shall I do with them?" Some said one thing and some said another. At last some of them told him that if he had an empty green-house, that was the best place for them, so he puts them there. Well, you

can imagine how soon the floor was strewn with dead bees. He found that was not likely to work, so he got further advice. He had an old bee shed on his place—one of those humming-bee sheds, with a bench and a roof over it—and he put them there. Now they told him the bees would run off if he did not take proper precautions, so he closed that with mosquito netting to keep the bees from running away. (Laughter). Then he was told the bees needed some feed and he must prepare it, so he had honey in plates and platters put around and there was a very lively time, and he thought, the greatest prosperity a man could wish to see so many bees flying around. I reached his place, as his special request, for he wanted me to hire for him somebody who would manage this business. It was a beautiful April day. The sun shone in all its splendour, the blossoms of the cherry were filling the air. "Now," he says, "come and see my Italian bees." So I went. What did I see? He and there I saw a bee flying. I at once knew if there were any bees there they must be very lively. I went tap, tap; no response. I think there were eight hives. I heard just a little buzzing, feeble sound, and I said to Mr. Parsons: "The bees are all dead, except in one hive." "Why," he said, "that cannot be, they are flying around here by thousands." There was one single hive that had a few bees. I had them taken away to his own private residence, where I looked at them, and I do not think there were more bees than would cover my two hands, but I saw some eggs and that inspired the hope that there was a queen, and at last I saw a beautiful Italian queen. I cared for them the best I knew how. I had a strong sort of bee from Mr. W. W. Carey, one of the most successful bee-keepers this country has ever known, and I put this in a Langstroth hive and I managed to introduce the queen into that strong colony.

After awhile we received information that the steamer was coming, bringing more bees, and as expected Hermann, the German, of whom he had bought the bees, to bring and take care of a large number of Italian queens. Mind you, they were all to be in the original stocks just as they were obtained in Italy. We heard of the steamer, and waited as patiently as we could till morning light appeared, and then we visited her, and we found we could not get permission to take off anything except a few bees, and I got hold of two colonies—small boxes. Hermann did not come, but Bodden, an Austrian, had charge of these bees, and he says, "My bees have had a hard time. These two I have kept in my state-room. Here is Bonne Belle Regina, the most beautiful

queen," and he put that into my hands and I got as quick as I could to Mr. Parson's apiary, and one of the queens was alive and the other was almost dead. Every bee was dead, but the queen had a little life in her. You would laugh if you saw what this man Bodden brought over. "Me thinks me come to a wild country, and me brought everything," he said. In his woollen garments were bee-worms rolled up and wrapped up. Now he might have brought over that pest. He was intensely mortified because he saw so many persons coming to see Mr. Parson's bees, any one of whom knew ten or one hundred times more than he did. He thought he was going to instruct. It did not take him very long before he discarded his own things and took to the moveable comb hive.

I ought to say that there came with these bees three different packages of Italian bees, one for Mr. Parsons, one for the patent office and one for Mr. Hehann, a skillful bee-keeper. I saw everyone opened. Those for the patent office were all dead, and those for Mr. Mehann were all dead. They were put in boxes with strips to give them air. The combs were just cut to fit in the boxes and crushed down to fit in their places. The combs in some had got loose, and they smashed up the bees and killed the queen. Some starved and some were just drowned in their honey. Then came a man from California, who had the promise of having Italian bees sold to him. I saw him offer \$500 in gold for one of these queens. Mr. Parsons would not accept it. He said: "I have only two left, I cannot afford to sell these queens."

I took my own bees home, and what was my horror to find that the drones were black. We could not see how there could be any impurity, because the queen came from a district where none but pure bees were raised. We concluded we would begin anew, and we destroyed all these drones and set out anew to get the Italian bees, but it was all right. Whoever has had far less experience than I have had knows that that color is not the decisive either in the queen or in the drones, but in the workers. (Applause.)

Now I have a brother that married a German lady, and he was living in Hamburg, and I said to him I want you to get me the choicest queen that can be found in Europe, and I want you to send a certain sum of money to Gigson, the great bee-keeper, and find the greatest Italian bees in all Europe and send them to me, and that is what he did, and we bred in and in, and that close breeding made larger queens. I had queens that would lay eggs very much as you would fill a bushel measure with wheat. The first person to think of these

Italian bees was Mr. Samuel Wagner. He sent for them, he furnished the honey to a maid to feed the bees on the way over, and he thinks the maid ate that honey, and the bees arrived dead.

Rev. Mr. Langstroth concluded his very excellent speech by giving the audience some interesting facts connected with his private life.

Mr. T. C. Newman, of Chicago, Ill.—My friends, we are highly honored to-day by the presence and address of our old friend, Rev. L. L. Langstroth, the father of American bee culture, whose name is known where ever the English language is spoken, and still further than that, whether it be German, French or Italian, still he is known as one of the greatest lights of modern agriculture in Italy. I heard his name from such men as County Barbo Dr. Dubini and Count Alfonsa de Saliceto, and we sat together and talked about the grand old men of America. In Germany from Dr. Dzierzon, whom we have heard of to-day from his own lips, and the Baroness of Berlepsch, and we talked there of our grand old man of America and American apiculture. In France, Switzerland, England and Scotland it was the same old story, and at a crowded meeting at London, where there was present Rev. Herbert R. Peel, closely related to the great Sir Robert Peel, and Mr. Cowan and Prof. Chesser, and scores of others, whose names are household words. They said to me: "Tell us about Dr. Langstroth and his present condition," and I told them about his condition, and, like true Englishmen, who knew how to appreciate goodness of character and grandness of person, went down deep into their pockets and put up a grand donation and sent it to him as a result of my recital of his condition and pecuniary position. I am glad we have his presence here to-day, and I trust we shall be able feelingly to express ourselves to him that we appreciate his presence as our brothers did in London, and they in Germany and in Switzerland, showing that America is not behind the world. (Applause).

Mr. Benton—What province did these bees come from that were brought to Genoa by mule packet?

Father Langstroth—I think it was the Sardina Alps. I think it was near Coma. It was in the part of Italy where black bees were not known and where eternal ice hills separate them from mixing. Mr. Heriman was from the province of Belegona.

WHO SHALL WINTER BEES OUT OF DOORS?
WHO IN THE CELLAR.

F. A. Gemmel, Stratford, Ont. (read).

(The paper will appear under a separate heading next month.)

Mr. S. T. Pettit—I would like to ask Mr. Gemmel why the damp cellar should be kept at a high temperature?

Mr. Gemmel—I do not know; I think it is generally conceded that as a rule damp cellars require more heat. I know in my case it did so.

The Chairman—-I often think there is a great mistake made unless a person uses a dry and wet bulb thermometer. They are often at sea as to whether their cellar is damp or not.

Mr. McEroy—I heard this paper read, and a good one it is. There is a sort of feeling with a good many that the cellar is the best place to winter the bees. In the northern part of the province, where it is very cold, it is all very well, but I think in the south and west of Ontario, where many have not deep cellars, the variation in the cellar is so much it would be better for them to winter in packing cases out of doors. If they would crowd the bees on less space put in division boards. If it is possible to send them into winter quarters without an unsealed comb and rest the queens, not allowing any work for the queens till near spring, they will consume less store, and come out better. The spreading of combs this season of the year is a foolish practice. The bees spread in too much territory. If these combs were closer, everything would be all right in the spring.

Committee of investigation in connection with the publication of last year's report were appointed as follows:—Dr. Mason, Ira Barker and J. T. Calvert.

Mr. Gemmel read invitation from Mr. George W. Broadbent to the North American bee-keepers to hold their convention in California next year.

Dr. Mason—Mr Pettit raises the back end of his hive 2 and Mr. Hall raises the front end 2. What is the object?

Mr. Pettit—The reason why I raised the back end of the hive is to cause circulation through the hive. In raising the back end and then rearing the hive off the bottom board, there is a chance for the air to move up and the heat, or, as the air is heated by the cluster of bees, it becomes rarified, and the difference of specific gravity between warm and cold air, causes the warm air to move up very slowly. The cellar air is colder than the hive air, and it crowds it. My hives being raised just off the bottom board 3-8, you would hardly notice the was any difference. I have one hive on top of another four hives, and it keeps them about the same.

Mr. Hall—I raise the front end instead of the hind end from laziness and convenience. Mr. Pettit is right. Mr. J. B. Hall bundles his bees into the cellar as they come from their summer stands, and they are set 16 inches from the cellar bottom, and the reason he raises the front end instead of the back end is because the front end is different. My cleats on my bottom board are heavy. They are $1\frac{1}{2}$ inches thick.

Dr. Mason—Do you do the same as Mr. Pettit, leave them on the same slant?

Mr. Hall—No sir; the next hive, instead of having a top of $1\frac{1}{2}$ inches, has a top of 3 inches. The third one that goes up has a dip of nine inches.

Dr. Mason—If you built them up high enough you would get them on end.

Mr. Hall—Yes, but when I get them high enough I raise the back end. The air can only enter the bottom of the hive, and it works very gradually and very slowly, as Mr. Pettit says, but that was not my object in doing it. My object was to get rid of moulding combs. In January the bees die off very fast, and the entrance will be clogged. If you have only the ordinary entrance, it will become clogged and you will have mouldy combs. The only reason for raising the bottom of the hive is to get rid of mouldy combs and dead bees.

Dr. Mason—I accomplish the same object as Mr. Hall does, and I can do it in a great deal easier way than he does. I set out without any bottom in at all, and then it is perfectly free.

Meeting adjourned.

Thursday, Sept. 5th, 1895.

Convention opened at 1.45 p. m. The president in the chair.

INTRODUCING QUEENS.

"Introducing Queens."—S. T. Pettit, Belmont, Ont.

Upon the subject of introducing queens, am I expected, after all the volumes that have been written and spoken upon that topic, to write anything new? It has often been said that a paper on apiarian subjects should be more calculated to draw out discussion than to exhaust the subject. Well, the paper in hand, I hope, will meet that view, for, indeed, I myself, want more light on the subject. I shall aim to set forth what seems to me the cause of causes of imperfect introduction. If we once fully understand the real causes, then we are in a position to seek a remedy.

There are some characteristics in bee nature so similar to those in human nature, that if we study ourselves it may help us to

understand why queens are often accepted under protest, and then treated as heathen Chinamen, and subsequently abused, tortured, and finally put to death or superceded, which ultimately means about the same thing. In this way, because of imperfect introduction, many valuable queens that were received in good condition, are cruelly disposed of, after the apiarist had decided that they were safely introduced. I know by repeated experiences of that kind the keenness of such disappointment.

I believe it will pay us to look more closely into this matter. I do not believe the fault is all with the bees. I apprehend that the queen has strong natural, motherly affections and yearnings for her own family and blood relations, and cares not to leave them and trust herself to the tender mercies of her natural enemies, for all worker bees and queens seem willing to destroy all other worker bees and queens from off the face of the earth, and they all understand this depravity in bee nature, and hence the fighting spirit. The principle of self-preservation is aroused in both queen and bees when thrown together without due precautions. The bees fear the queen and the queen fears the bees, but this mutual mistrust is not the only element of discord and danger. The queen's love for her own, however great, is equalled by the loyalty of all worker bees to their own queen, and this laudible principle, coupled with fear, are two standing difficulties to successful introduction. But these are not all. I believe it is a recognized fact that generally, if not always, the stronger a man, a society or a company, a mob or a nation, or a hive of bees is, the more self-confident and self-assertive each becomes. Now these, I believe, are the difficulties to be removed. Can we do it? And if so, how? These are the pertinent questions. I will give what I think most successful. I may be allowed to interject right here that I believe more queens are lost or injured through imperfect introduction, than through transit. A poor queen is often made so by imperfect introduction. I have succeeded best by selecting, or preparing for the purpose a weak hive. In this, as above suggested, their self-sufficiency is not so great, and they are more yielding than a strong hive.

Now, having your queen on hand, remove the old queen from the hive, and immediately place the new queen in a clean cage all by herself, and place her in a clean sweet airy place (not in your pocket) out of the reach of all bees. Now watch your bees and they will soon manifest their loss. In many cases their grief and consternation will be very manifest. Now at this

crisis the queen will be just as lonesome and forlorn as these queenless bees, and now is the time to liberate her. Place her within about a foot of the entrance. The queen will know by the commotion and mourning of the bees what is the matter. She will understand their frame of mind and her fears will give place to hope. Her lonely, forsaken condition prepares her to welcome the bees, and they in their forlorn condition are perceiving the queen's humility, will gladly reciprocate her overtures of peace and good will. Then they will escort her into their home and kingdom, and proclaim her queen of the realm. Then their mourning and sadness will be turned into rejoicing and gladness. A queen may be successfully introduced to a new swarm in the same way. If the condemned queen is clipped, cage her when the bees swarm. Then place the new hive on the old stand and remove the old hive some distance away. Now place the old queen at the entrance of the new hive, and when the bees are returning rapidly, remove the old queen. When they miss her they will manifest their loss in a marked degree. Having prepared the new queen as in the other case, let her run in as above, and you will see how quickly the bees will quiet down and go to work.

Some bees that have brood will fail to manifest their loss. In that case it is better to cage the queen in the usual way. But after all, the plan of placing a valuable queen with just hatching brood never fails to give satisfactory results. Having selected the combs of brood and liberated the queen in the hive, I place it on top of a fairly strong hive with two frames of wire cloth between them. This arrangement enables me without danger from other bees to place the hive where I wish it to stand. If some new, uncapped honey is present and water provided, breeding will go on at a lively pace. All changes in the practice of bee-keeping should be made with due caution. There is so much in knowing how to do a thing.

Mr. Aspenall—I have tried and tried to find a method that would operate under all circumstances equally well. We are all familiar with the fact that a honey flow favors queen production. It has been my study and labor for the last five or six years, to overcome the existing difficulty attending upon the different seasons and conditions, and although I have not been able to do it entirely and thoroughly, I find we are gradually approaching it. I make my cage somewhat different from the ordinary wire cloth. I use cheese cloth over a small frame $\frac{3}{8}$ inch thick, a hole being bored in

one of the uprights to receive food for the queen. The queen is enclosed, and this is placed within the hive immediately or any time within eight or ten hours after removing the old queen. To save time I have introduced queens of late with no time intervening between the removal of the old queen and introducing the new one. With the exception of extreme cases such as a freshly formed colony, and also late in the fall when no honey is being gathered, with the exception of these two circumstances I have no trouble. I simply remove the old queen during the summer months, that is, a colony in a normal condition, introduce the cage and the work is accomplished. You will see at once the queen is not enclosed as in the wire cloth cage. By contact through the fine meshes of the cheese cloth there is a recognition by smell. All the cheese cloth cages that I have examined have not been opened in less than five hours. These five hours gives the colony a chance to impart scent to the queen, and the queen naturally becomes a little hungry for digested food, and the bees form an acquaintance and the introduction takes place most favorably. I have known queens thus introduced begin to lay the next day. I introduced three queens into the same colony in three successive days before they discovered there was a stranger in the hive. There is no trouble in introducing two. The position of the colony becomes somewhat changed during the period of 36 hours; the eggs laid by the old queen will have been hatched. This is unnatural and they will be apt to ball the old queen.

Mr. Morrison—I find the safest way to introduce queens is simply to take dry grass, partly rotten, such as you gather up the season before, and give the bees a thorough smoking with it, and then place it in an ordinary introducing cage without any escorts that will liberate in no more than five hours. It has always worked with me perfectly; no loss. The object of putting this dry grass in is to make the bees and their hives smell, which smells very strongly and they do not like it.

Mr. J. J. Calvert, Medina, Ohio.—I visited Mr. Henry Allen two months ago, and he showed me his method of introducing queens. He used frames of about five inches square for raising queens, and he hatches his queens in the queen hatcher and keeps them there until he has a hive ready to put them into, and when he is ready to introduce he fills that box full of smoke, pokes small mullin leaves into the entrance, and throws the queen in, closes it up, and that is the end of it. The leaf will dry up and remove itself from the entrance

and get out of the way in time so that the bees will be liberated, and in that way the queen is introduced. He tells me he follows this method entirely, and very seldom loses a queen.

Mr. L. A. Aspenall—Ought we not to get along without extreme measures? It seems to me that to fill a hive full of tobacco smoke or any smoke is not human.

Mr. Walton—I did not catch the first part of Mr. Pettit's paper, and I do not understand why I removes the old queen and having the young queen in the cage, let her run in at the entrance immediately after. Perhaps he would explain.

Mr. Pettit—Have your queen ready and then remove the old queen, and just at the same time put your new queen into the cage all by herself, and put her in a dry place, where no bees can get at her, and the bees will become lonesome, and the queen, being all alone, will be just as lonesome. Now they are both seeking company and she walks right in. Of course this has got to be done when there are no robbers around.

Dr. Mason—I almost wish I could live on this side of the line. This thing must go by locality. Mr. Pettit says under such conditions the bees will accept the queen and proclaim her queen of all the realm. You people are more accustomed to having things that way, but over our way they do not act in that manner. I have tried that same thing in my apiary and they did not work in that way. It may be that they have affection for the queen over here.

SHALL THERE BE A UNION OF THE UNION AND THE NORTH AMERICAN?

Dr. C. C. Miller, Marengo, Ill.

Should the North American Bee-Keepers' Association ask the question the Bee-Keepers Union might answer. Mind your own business. Better not discuss publicly whether there is to be a wedding till you find out privately whether I am willing to marry.

And yet, and yet. The two organizations have been closely identified, their interests should be more fully the same, their membership is to some extent the same, and should be more fully the same, and more members of the Union can be found together at one time at the North American convention, than at any other time and place. Indeed the nearest the Union has ever come to having a meeting has been at the meetings of the North American, and aside from that there has never been the semblance of a meeting of the Union. So there seems nothing particularly inappropriate in talking the matter over at the Convention.

I am asked to say something introductory, and I'll be brief. As a member of the North American, I should say to the Union, if you'll join hands with us we think we can do more for the interests of bee-keepers than is now being done. To be very plain we'd like to have the money in your treasury. We can then increase our membership, and an increase of membership is the thing we have always needed.

Now I'll tell you how I feel as a member of the Union. A few of us banded together to battle for the rights of bee-keepers, and have paid from one to ten dollars each to support the battle. The Union has done a grand work, and every bee-keeper in the land has had the benefit. If no other benefit, he has had the feeling of security coming from the decisions gained by the Union. There is an element of unfairness in the few bearing all the expense for the benefit of many and if there is any way by which a larger number could become interested, I for one would be glad to see it.

Notwithstanding the small membership of the Union, of late the income has outrun the outlay, and an unused and perhaps unneeded surplus lies in the treasury. As matters now stand, we shall continue to pay into the treasury one dollar annually, and that seems hardly right when there is no apparent need for it. Why should we pay more into the treasury when we don't know what to do with what we have? With the decisions of the Union as precedents, there seems less need for further work in the same direction.

There is nothing inconsistent there would have been nothing inconsistent in the first place, in having the North American to do the work that the Union has done. Probably it would have been done in that way but for an emergency that arose requiring immediate action. If one organization can do the work of two, it is better. Every man who pays his money into the treasury of the Union will just as willingly pay it into the treasury of the North American if he is sure he will get the same benefit from it.

The main question to be settled is, "What will do the greatest good to the greatest number?" Without claiming any special wisdom in the matter, I may be allowed to say what occurs to me. Merge the Union into the North American. Preserve intact whatever sum may be thought desirable as a defence fund. Use the balance, instead of a grant from the government as in other countries and in part of our own territory, to increase the membership of the North American. It ought not be a difficult matter to increase it to a thousand, and that thousand would have some force in securing

a recognition from government and getting on such footing as to easily maintain and increase its numbers. The same reason that now induces 300 men to contribute one dollar annually would still induce them to pay any necessary amount and additional inducements would bring in others. How affairs should be administered, and whether the manager has been properly paid for his services, are separate matters for consideration.

C. C. MILLER.

(Report of Convention will be continued next month.)

EDITOR CANADIAN BEE JOURNAL.

DEAR SIR,—I bought a Porter bee escape from you last fall at Toronto, and promised to let you know how I liked it. Well, I had been using the Lightening, manufactured by M. E. Hasting, New York Mills, and I find it works better than the Porter. It is on something the same principle as the Porter—four exits with a little spring at the side of each. Was not suited with either of the escapes, and having heard of cones, I made a board 14 x 20 x $\frac{3}{8}$ and nailed a $\frac{1}{2}$ inch rim on one side so as to raise the super $\frac{3}{4}$ of an inch from the board. I then put a cone 2 or 3 inches long in one end, and the two sides of the rim. By putting in one of those escapes in the morning the bees pass out through the cones and fly into the hive. The first one I made was not a success as I made the cones too blunt and short and the robbers walked right in, but by making the cones long and narrow this is prevented, and I have seen the bees walk out of those cones in one continuous stream till the super was empty. In most cases I think it works as well, if not better than any escape on the market.

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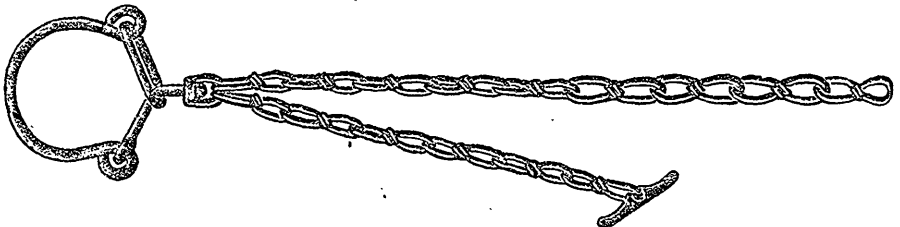
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I am delighted with the sections. They are very much superior to these I have been getting. I am pleased, also with the foundation. Rev. Thomas J. Spratt, Wolfe Island, June 5th, 1895.

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To the Bee-Keepers of Canada.

The Ontario Bee-Keepers' Association desire to have as large a membership as possible of those interested in apiculture, and as the bonus to members is worth more than their annual membership fee it seems but reasonable that all interested should become members, as the object of the Association is to benefit the industry and those engaged in it as well as being a benefit to the country at large.

THE CANADIAN BEE JOURNAL, of which the annual subscription fee is \$1.00 will be given to members of 1895. The report of the annual meeting is also given, which is a full report of all interesting discussions as well as giving financial statements, etc.

There is no doubt but what the Association is doing a good work in many ways such as having a Foul Brood Inspector going through the apiaries in the Province curing and clearing the country of that dreaded disease where found, and in getting laws passed by the government to protect the industry, even as to prevent the spraying of fruit trees with poisons which has been very injurious and caused great loss to those having bees poisoned where spraying was done at the wrong time.

The Association can fairly claim the support of all interested in bee culture and we trust that all seeing this request will respond by remitting the annual membership fee of one dollar, (\$1.00) by registered letter or Post Office Order.

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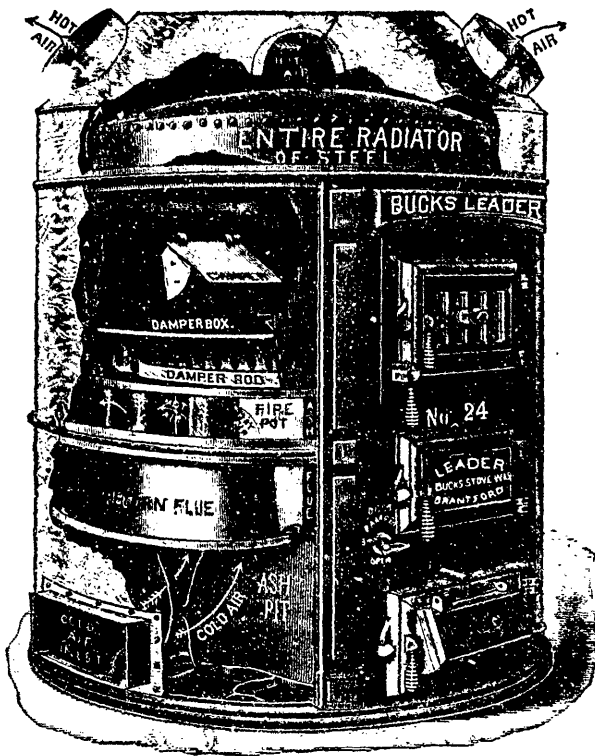
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