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# CANADIAN BEE JOURNAL

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WHOLE NO.  
350.

In this issue will be found an able article by Mr. Wm. McEvoy, upon the detection of foul brood. A great deal has been said and written on this subject. Years ago when the editor of this journal, spent two years with D. A. Jones, then of Beeton Ont., he had some experience with foul brood and saw many of the tests Mr. Jones made. Since that time we have believed that the means of developing the disease is 1st, through the honey, 2nd, through the larvae developing in a cell having the germs of the disease.

The second source is easily disposed of by shaking the bees upon fresh combs. The first is much the most dangerous source. The honey may become diseased through being stored in a cell having the remains of the young bee or larvae therein. The bees when swarming or when otherwise placed in a new hive may take the germ with them in the honey, with which they so readily supply themselves and thus start foul brood in a new hive. Or the colony having the disease, and becoming weakened may be robbed by another colony, and this latter colony carrying home the diseased honey start up a case of foul brood.

While we may say without boasting that we have had a more than average education along scientific lines, we have never felt capable of deciding from a scientific standpoint the following question: Is the disease transmitted either through the ovaries of the queen, or through germs of the disease existing in the nurse or other bee, aside from what may be contained in the

honey in their sack? This we, however, know, from a practical standpoint, the disease has been cured in a great many instances without change of queen, and without change of nurse or other bees. Though this be the case, we are, perhaps, not entirely safe in taking it for granted that the disease is never perpetuated in this way. But that it rarely is, we, at least know, and more, that for practical purposes this phase of the question need not be considered, and for this reason: If four hundred and ninety-nine times out of five hundred, the disease is not transmitted by nurse or other bees, or the queen, and there is no other way of treating the colony and saving the bees, (for it will not pay to destroy them, even if one colony in one hundred would transmit the disease as suggested), it would not even pay to change the queen, if in rare cases, she, through her ovaries, did, transmit the disease. We must never forget to look at the question from a practical standpoint, on the other hand *true science* should be a guide to the practical man, even as a *truly scientific* man will never ignore practical experience. Now to return to the method of curing, the method which will entirely dispose of the honey, which most readily transmits the disease, has shown itself to be correct. The starvation plan will accomplish this. The rapidity with which bees will consume honey depends greatly upon their activity. Mr. S. Cornell, in the Review in February, appears to forget this, he says: "I recently met with an account of one of Mr. D. A. Jones' experiments in which he

kept a cluster of bees without food for eighteen days, and even at the end of the of this period, only a few bees were starved." Without distinctly denying that the above was the case, we would say we cannot recollect of any experiment with such a length of time taken to starve the bees. Those taking the greatest length of time to starve, were bees given an abundance of time to fill their honey sacks; every bee was given this opportunity. Then the bees kept in a fairly cool and dark place, undisturbed would consume their honey in the least time.

It is not fair for Mr. Corneil to conclude from such a test, that in a season of activity when building comb and being otherwise in a state of activity the bees take the same length of time to get rid of the honey in their sack and, therefore to remove the comb built in the new hive after four days according to McEvoy's plan, is useless.

The starvation plan must be carefully done throughout. The bees must have a chance to entirely fill themselves, not some but all. Then when they begin to show signs of starvation the diseased honey has been consumed. It is not, then, a question of time, but of *symptoms of starvation*. A much better plan to get rid of diseased honey, which the bees may take with them into the new hive, is McEvoy's. Put the bees upon starters, first the bees are liable to use for wax secretion the diseased honey, failing that, they consume it themselves, and lastly, should any be left it will be cut away with the starters, and the bees make their second start with the triple precaution that all the old honey has been wiped out. The cure is effected, some claim, in every instance. No one conversant with Mr. McEvoy's work denies but that the cure is effected in every or almost every instance, some say in every instance. Getting rid of the old honey is at the root of the system. It is strange that R. L. Taylor cannot see this. We are not surprised that Mr. Corneil should so easily and constantly stumble, when he discusses the foul brood question, he has not practical

knowledge of the disease, but Mr. Taylor has practical knowledge and is an able bee-keeper and differing widely in his views upon the foul brood question.

Again, in the same article, Mr. Corneil says: "Cases are on record in which, during the honey flow the disease almost disappeared, but afterwards returned with all its former virulence. I venture the opinion, that in such cases, even so simple a disinfectant as common salt in the food, might have been sufficient to so weaken the microbes that the balance would have been turned against them, they would have been overcome by the phagocytes, and the disease eradicated."

The "phagocytes," Mr. Corneil mentions are "an army of germ killers" to defend the the larvae against foul brood and other germs. Sometimes the phagocytes come out ahead, sometimes the foul brood germs. It depending upon the power and number of the army on either side. The reason why in a good honey flow the foul brood almost disappeared he says was because under these healthy stimulating conditions the phagocytes became more abundant and overcame the foul brood germs. A little salt added, he thinks would assist in entirely destroying the germs. Note "the disease almost entirely disappeared, but returned with all its former virulence."

The explanation is easy without the phagocytes. When the colony is in the first stages of the disease and not many cells are affected, with the fresh honey coming in freely, the bees are not likely to feed the larvae diseased honey. The disease disappears entirely or almost entirely only to return when honey is taken from a diseased cell after the flow ceases. The salt in this case would play about as important a part in the entire extermination of foul brood in the colony as salt plays in the attempt of the little boy catching the sparrow.

We have been with Mr. McEvoy upon this question to a great extent. That foul brood can be caused from chilled brood we have felt inclined to doubt.

Since we years ago condemned the Heddon hive, the correctness of which has been amply shown since, we Adulteration. have taken but little notice of what Jas. Heddon has had to say upon bee-keeping topics. At present brother Root in *Gleanings* and brother York in the *American Bee Journal* are loudly and justly condemning Mr. Heddon for the views he expressed at the Michigan State Convention upon the method of treating those who adulterate honey. We trust that the Bee-Keeper's Union and all others interested will continue to vigorously prosecute, not only those who adulterate but those who suggest methods of adulteration. Bee keepers cannot afford even by silence to become indirectly a party to such methods. A large portion of our success as bee-keepers depends upon confidence in our product.

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Considerable discussion is going on in the British Bee Journal as to the best method of preventing the Honey Imports- importing of foreign honey. In 1892 Great Britain imported honey to the value of \$64,628. The discussion is being carried on in a fair and friendly spirit, and they have in Great Britain a perfect right to develop there the bee-keeping industry so as to be able to provide their own market. Canada is of course equally entitled to look for foreign markets as long as she undertakes the development along this line in an honorable way.

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On March 10th, we set out twelve colonies of bees giving warm cushions on top. This is being done for experimental purposes. We are inclined to think in a An Experiment. cellar under a dwelling house as ours is and with ventilation not under perfect control, it pays to set bees out of the cellar earlier than is generally done. For a number of days they flew freely and the temperature of the cellar was up to 48° and 50° Under such conditions bees would likely begin to brood and would likely be better outside. We have

wintered and put outside in first class condition a colony with a choice queen. That old subscribers and new subscribers to the CANADIAN BEE JOURNAL may have the Journal and a daughter from the queen of this hive see the offer made by "Strictly Business" in another department.

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Our bees are all out of the cellar, and had a good fly on Sunday, March 18th. Some time during the day they Remarkable began to gather pollen, and were gathering as late as 6.40 p. m. They appear in splendid condition; strong, very little spotting, and only one colony lost through starvation. It starved within the last week.

The Empire of March 6th, announces that the Hon. A. R. Angers, Dominion Minister of Agriculture, has established an experimental apiary Dominion Experi- at Ottawa. This is mental Apiary. a move that beekeepers and farmers will appreciate. The Director of Dominion Experimental Farms, Prof. William Saunders, takes a keen interest in entomology. The apiary will be directly under the supervision of Prof. James Fletcher, the farm botanist and entomologist. The dispatch also hints at the development of foreign markets. The CANADIAN BEE JOURNAL would like to see a friendly rivalry between the Dominion and Provincial governments in the direction of the development of the bee-keeping interests.

### His Successor.

An Arkansas editor thus announced an important event in the local newspaper world:

It is with a feeling of distress that we retire from the active control of this paper, but we leave our journal with a gentleman who is financially better able than we are to handle it. The gentleman is well known in this community. He is the sheriff.

Sensitive beings are not sensible beings.  
Best men oft are moulded out of faults.  
No one is happy unless he respects himself.

## ANNUAL MEETING OF THE ONTARIO BEE-KEEPERS' ASSOCIATION.

(continued from page 177)

The session opened with Mr. A. Pickett, the president in the chair. First upon the programme was the report of Wm. McEvoy, Woodburn, Ont.

### FOUL BROOD INSPECTORS REPORT.

During the season of 1893, I visited bee-yards in the Counties of Lambton, Middlesex, Elgin, Oxford, Brant, Wentworth, Halton, Ontario, Peel, Wellington, Perth and Huron. I examined eighty-nine apiaries and found foul brood in thirty-four bee-yards. In three apiaries the disease had not made much head way, while in four bee yards it had. The remaining twenty-seven foul broody apiaries were in a horrible state with foul brood, and the death rate in several of these diseased apiaries was the largest I ever saw. Before I examined these thirty-four foul broody apiaries, over five hundred and fifty colonies had died of foul brood. It would have taken a good deal of time to examine every colony in every diseased apiary and would have delayed me very much at a time when I was wanted as soon as possible in other places, so for this reason I cannot tell how many diseased colonies there were in the thirty-four foul broody apiaries when I visited them the first time. I took the greatest of pains to explain every thing to the owners of these diseased apiaries how to cure their foul broody colonies by a method of curing foul brood which is by far the best of any in the world. And as it cannot and never does fail when properly done, it should be followed by the bee-keepers of every land.

Bee-keepers in two counties while overhauling their colonies very late in the fall came across a kind of dead brood they dreaded might be foul brood. I got orders to go and examine those apiaries, which I did. I found it to be genuine foul brood. As these apiaries were large, and a good distance from other bee-yards and in the hands of good men who were very anxious to get their apiaries cured in the most profitable way, I told the owners to fix them up the best way they could and cure early in next honey season. I have had a few apiaries that came in late left over each year. Judging from those I examined the second time and from those I heard from I am well pleased with the grand cures the

owners made. And I believe that those apiaries that came in too late in the fall to cure profitably will be cured in June.

I was very sorry to have to burn fifteen colonies with foul brood in the county of Middlesex. I always do everything I can in every possible way to get the bee-keepers to cure their foul broody apiaries. I have written many long letters, hours after I should have been in my bed, to the owners of foul broody apiaries explaining to them how to cure foul brood and I have spent several dollars out of my own pockets in helping to get the cures made. But when I do all I can and the owners will not cure then I have to burn up the diseased colonies for the public good. I have been four seasons inspecting the apiaries of Ontario and foul broody apiaries by the wholesale every year. I had to get the curing done by all classes of men. Many of these men had to be looked after very closely to keep them from making mistakes. I got the curing done in grand order and in the most peaceable manner. I am very much pleased to say that no man could ever wish to deal with a better lot of men than I met with on my rounds through Ontario. My time car fare and hire amounted to \$504.55.

WM. McEVoy,  
Foul Brood Inspector for Ontario.

In reply to a question Mr. McEvoy said, that foul brood was, upon the whole, certainly decreasing. He instructed all to handle their bees towards evening when honey was not coming in.

Next came an able paper by C. W. Post upon

### MANAGEMENT OF OUR APIARIES AND HANDLING BEES IN CAR LOAD LOTS.

During the last few years establishing out Apiaries, has become a necessity with the specialist. Not so much for the reason that certain localities have become overstocked with bees, but from the fact that it is very difficult to find a locality with all conditions favorable for a continuous flow of nectar from the beginning of the clover bloom until the closing up of buckwheat and other fall flowers.

In this article, I will not go further than what I have learned from actual experience. My home apiary is in a poor locality for white honey, but one of the best for buckwheat and fall flowers. For that reason it is a necessity for me to establish out apiaries. My first attempt was in 1885, hauling the bees and surplus arrangements on spring wagons. This I continued for five years and during that time, with the increase in colonies it became a long tedious job to handle them on wagons. As I am living

on the line of the Central Ontario Railway and only a short distance from Wellers' Bay station, a thought suggested that it could be managed to handle them in car load lots, so in 1890 I began in a sort of experimental way to handle bees in car load lots and from the experience gained in the past four seasons, I have learned and know that bees can successfully be shipped by rail in full car load lots in the warmest weather. I will give in detail my system of management, from preparing them for shipping in May and early June, until they are returned home the first of August, and if there is a better or different way from mine, I hope it will be brought out in discussion that we all may receive benefit from it. I use, and prefer, the 9 frame Langstroth hive with Vandusen clamps. The sides of the hive are cut to project one half inch beyond the front end of the hives. Each hive is furnished with two wire cloth screens framed with one-inch straight grained basswood. The size of the top screen is the outside dimensions of the top of the hive and the bottom is one-half inch longer or just the length of the sides of the hive. It also has a one-inch screw in each side to correspond with the one in the bottom board. To prepare them for shipping, take off the bottom boards and put under the screens wire cloth up. Now with a hammer drive the clamps on solid and spring in a one-inch wire nail on the top screens, wire cloth up, and after they are done flying in the evening put on the entrance sticks which are cut three-eighths of an inch in thickness by just the length of the end of the hives, so that they fit between the sides of the hives and fit down snug on the ends of the screens. Being thus secured, if the screens get shifted the bees cannot escape. I ship my bees in a stock car and place them with the combs running lengthwise of the car. The first tier is placed on a 2x4 scantling which allows ample ventilation below. The next tier is placed two feet above them on a 2x8 plank resting on the sides of the car, spaced so that the end of the two rows of hives rests on the planks, leaving the bottoms of the hives unobstructed with an upright in the centre and above that is the third tier arranged in the same way. One end of a car holds 180 colonies while the supers, sun-caps, etc occupy the other. I run my bees north from 25 to 40 miles and they are 48 hours. During this time they require a large quantity of water which is given them by means of a fountain pump. I much prefer locating my apiaries close to a station, as I have done for the last two seasons as it requires no handling on waggons. When arriving at our destin-

ation the car is placed right at the yard, we first unload and place the stands then place the bottom boards on the stands, next comes the sun caps, (each sun-cap holds a queen excluder and honey board.) Now, we are ready for the bees. One man carries them to the car door and two other men set them on hand barrows and carry them and sets them on the stands and if the sun is shining place a sun-cap on cross-wise. By watering them well as unloaded it is better not to liberate them till after sun-set as it prevents them from mixing.

After liberating, put on the sun-caps and leave them till morning. The next day we take off the top screen and if the honey flow is near at hand, and colonies strong put on the top stories and fix them all up but I don't put on the queen excluder until the honey begins to come in freely. Now as there is seldom any shade in these out apiaries I manage them as follows. I prefer, in summer, to have the hives face North-east so during the hottest part of the day the sun strikes the back of the hives. But if the lay of the land don't admit, set them any way. I also leave the screens under the hives in the summer and if the weather is very warm. I raise the back ends of the hives on half-inch blocks which allows a circulation of air under the cluster. They cannot hang down to the bottom boards and obstruct ventilation, but cool air passes under the whole brood nest and they are perfectly contented. If very hot I raise the back ends of the four inch sun-caps and slide them forward till it rests on the honey boards, and added to this, all hives are painted a dead white. The melting of combs, and bees uncomfortable from heat, is a thing of the past. I believe that out apiaries can be run more profitably for extracted than comb honey, at the present prices, therefore I make a specialty of the former. For a number of years I have furnished each hive with two top stories, eight Langstroth hives each, but I believe that we can get better ripened honey by using one set of combs above the brood nest, but at the same time I want two sets in case of an emergency. I begin to extract when the combs are about two-thirds capped and take them clean as we go. With two smart boys to carry combs and draw off honey extracting is a very short job compared with doing the same work ten years ago. I have used nearly all kinds of extractors, but I now use and prefer the "New Gould Reversible" extractor. If there is one as good I never saw it. I extract and keep the different grades separate. When basswood begins to fail everything is cleaned up and the bees prepared for moving. In the last

extracting I placed five-sixteenths inch strips of wood across the ends of the frames in the top stories, take off queen excluders and set the top stories back on the hives. My top stories telescope over the hives three quarters of an inch and a wire nail is sprigged in each side to hold them together, then the screens are placed on the top of the hives and in the evening after they are settled down tack on the entrance sticks and they are ready to load on the cars. They are placed on the car as before, but only two tiers high as the top stories take up the space. At this season of the year colonies are very strong, and the weather warm, they must have plenty of water, but the old adage that a little too much is just enough will not apply here, as a little too much is as dangerous as none at all. Never water unless they cluster on the screens then spray them lightly but often and they will soon settle down between the frames. If you give them too much and get them steaming, the game is up. When they arrive home, they are drawn on a large spring waggon to the yard and set on the stands without the bottoms, and the sun-caps placed on cross-wise to give thorough ventilation. After sunset they are liberated and the next day, if the weather is favorable, they will be working on the buckwheat as briskly as though they had never been moved.

I intended to say something on overstocking, but I find that I have already said too much and I will leave that subject some future time.

Wm. McEvoy—I think without perhaps an exception, Mr. Post is one of the largest and most successful bee-keepers in the country. I have been at his place several times.

Mr. Gemmell—I think Mr. Post's paper an excellent one. I have moved bees in wagons considerably, but I move in the fall in cooler weather.

S. Corneil—I have moved bees in cattle cars, they make up an astonishing amount of heat, especially when jarred.

Jacob Alpaugh—I have shipped a good many colonies by railroad. I get on all right with top ventilation if they have space above. I have a frame with wire on top. The ends of this frame are short enough to fit down upon the frames in the body and the sides are the length of the hive.

R. F. Holtermann—We have shipped a good many bees as far as Nova Scotia, Prince Edward Island and New Brunswick in the east, and remember one shipment particularly in the west, where they went

to Regina, N. W. T., by rail and then some 250 miles by stage. We have never yet lost a colony in shipping.

We select comb likely to stand shipment. Ventilation is regulated according to distance and season. The frames are fastened in place by a strip of wood put across ends of frames; a nail fastens the strip and also the end of the frame to hive. The nail is driven only part of the way home, a narrower or wider board is nailed across front and rear of hive leaving an opening larger or smaller over the centre of the brood chamber. By means of uprights nailed upon these boards and wire cloth over the uprights, a pocket is formed which allows bees to crowd above the frames when required. At the entrance a cage is placed instead of a flat wire cloth, this prevents clogging of the entrance.

R. McKnight—I would council very careful preparation by rail but by waggon I do not take so much care. I used to be very careful, but I find the preliminary arrangements unnecessary. I use the simplicity hive with beveled edges and I had frames made  $2\frac{1}{2}$  inches deep to allow that space above the frames I no longer use these. Again I do not preserve by nailing the space between the combs unless the combs are new. I can confine bees for 15 hours in early summer or in the fall without top ventilation and with but little front. Our roads are not of the best for hauling.

J. B. Hall—That may be all right at certain times of the year, but in hot weather I would do as Mr. Post says.

Allen Fringle—It all depends upon circumstances. To ship bees a long distance in hot weather they must have plenty of ventilation. I have an adjustable ventilator. I put a frame over the top of the hive. I have also shipped with propolized quilt on top of the hive. But it must be remembered that two or three hives can be shipped in this way when a carload cannot.

Mr. Pettit—I remember Mrs. Atchley throws cold water in the car and about the hives, the evaporation which follows, cools the bees.

Wm. Couse—I have moved many colonies on wagons with wire cloth over the hive and close upon the frames, also close upon the entrance. Bees require more than this.

#### QUESTION DRAWER.

Does the system of managing bees known as "The Alpaugh System" do away with swarming or is swarming more under our control than otherwise?

Mr. Alpaugh—Yes it does stop swarming. Are the bees at the end of the honey flow in better shape for winter?

Mr. Alpaugh—Practically not.

Will we have more or less colonies per spring count?

Mr. Alpaugh—Less.

Will we secure more or less honey per colony spring count?

Mr. Alpaugh—That is a point yet to be considered. I do not now practice it. When I first tried this system I wintered inside and did not get bees strong enough to suit me for the honey flow.

At what age is it desirable to supersede queens?

J. B. Hall—At the age that the bees and daughters of the queen decide on.

S. Corneil—It is impossible to fix a date. It varies very much.

Wm. McEvoy—As a rule two years.

A. E. Sherrington—Young queens will as a rule build up better if two years.

Mr. Hall—By keeping all queens we loose less than we would, should we destroy at a fixed age. It will not pay to kill all queens at a certain age, we want to breed for longevity.

Wm. Couse—I prefer new queens every year.

Jacob Alpaugh—Where you get a fall flow you cannot kill queens to advantage. Where you get no fall flow it pays to kill queens after the close of the honey flow. Colonies one wishes to breed from should be marked.

Mr. Hall—That system means too much work for me.

J. B. Aches—Beginners should not fuss too much with queens, such may lead to having queenless colonies.

S. T. Pettit—I think it a mistake to destroy and kill off queens indiscriminately. Bees supersede their queens oftener than those who do not clip think. The bees appear to understand that part of the work. I incline to think the bees do not rear as good a cell when queenless as when superseding. When such a system (that of killing queens) is followed for a few years I think the natural instinct of the bees to supersede would be lessened. If bees superseded themselves the strain of longevity is perpetuated.

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

Mr. Pringle—No not altogether, leave about six square inches.

Mr. Pettit—I never wait for public opinion to back me in an idea. You want a lot of drone comb in the brood chamber at least one tenth of the comb should be of drone cells. Bees will have drone combs, and it is better to give this at the start, the bees will then be more content. I like about half a comb of drone cells on each outside, this is a proper condition. If

so arranged I think there will be less swarming.

Mr. Alpaugh—I incline to agree with Mr. Pettit. It is not best to be without drone comb. I give one or two combs in a nine frame hive. The drone comb should be put to the outsides. They do no harm and until the bees get strong they do not breed in them. So situated you need melt no drone comb for you can put under conditions named all the drone comb you like in the upper story and the bees will use them for storing honey.

Mr. McKnight report on behalf of the committee appointed to seek reduction in freight charges, stating that nothing had been done to secure a reduction. He thought rates were not out of proportion.

Mr. Pettit thought something ought to be done.

Mr. Pringle—Mentioned the injustice of having, honey securely crated in tins, paying a higher freight rate than honey in kegs.

Messrs Couse and Holtermann agreed with Mr. Pringle, the latter stating that he agreed with Mr. McKnight as to the improbability of securing any other reduction. But that was an important consideration. Messrs, Pringle, Holtermann, Gemmell and McKnight, were appointed a committee to take this matter in hand.

#### AFTERNOON.

What is the best material for cushions considering the price.

Mr. Corneil—Four foot sheeting, fill the sack with forest leaves.

Are the yellow strains of Italians better than the three-banded.

Mr. Myers—Better for what.

E. A. Jones—I can see no difference.

R. F. Holtermann—The general opinion appears to be against the very light colored bees.

A. E. Sherrington—My experience differs, I favor the very light. I have both strains the lighter in color are the gentler. They also stay on their combs and winter well.

Should we use wired frames when putting foundation in frames?

Mr. Gemmell—If I use foundation in brood chamber or in the upper story I imbed wire. If I allow the bees to build the combs themselves I do not use it.

Mr. McEvoy—My experience through out the province would lead me to say: "wire if deep frames. If not wired they sag. He was at one time strongly opposed to wiring. Of course an expert might do without wiring.

Mr. Holtermann—There are people attempting to use very light foundation, with perhaps the hive standing in an unshaded



place and improperly ventilated. Such have trouble with foundation sagging or melting down. For this they sometimes unjustly blame the supply dealer. A man not careful should wire frames.

J. B. Hall—We do not need wired frames let people do it more carefully.

S. T. Pettit—It depends much upon the wax. Water has a weakening effect on wax. When you have wax properly rendered you can make it thin say 7 ft to the lb. Frames 9 in. deep or less. Then discretion must be used in giving it to the bees and you need not wire. I at one time used artificial means of keeping up foundation but now I give room and air at that time. If foundation is made right and wax right, all is well. Shade when hot. I have foundation drawn out in the upper story.

John Myers—I have used wired and unwired. The expense of wiring is not great. When using wires you can get full sheets of brood comb.

Wm. McEvoy—With best made wax it is all right, otherwise it is not.

J. B. Hall—I have had 1600 frames and all perfect, not a wire in one of them. I put in sheets to swing easily in the frame. the lower side of sheet is narrower than the upper, and lower half of sheet sloping a little away from the side bar. The bees attach the sides of the sheet, first two-thirds of the way down. With the remaining one-third of sheet there was no sagging. I ventilate properly and turn the quilt back two or three inches, put an eight inch run over the quilt and upon this the lid.

R. H. Myers—Some may succeed but beginner's better wire.

Shall we paint hives?

F. A. Gemmell—All things considered, yes.

Jacob Alpaugh—I want no paint except on the cover. There is moisture escaping from the bees at all times of the year, if the hive is not painted this moisture is forced through the sides, it passes through the wood. Again the painted wood is much colder. In hot weather white paint is not hot, but about as hot as wood. I have had unpainted hives ever since I began bee-keeping these are perfectly good now.

Comb honey supers, I paint to keep them from warping.

J. B. Hall—I used to paint hives, but am now stopping.

S. T. Pettit—I used to paint and also advocate painting, but it makes the wood more of a conductor. It is certain that moisture escapes from the wood. In the spring of the year I have found blisters under the paint, upon examination I found they were blisters of water which had been

forced through the wood.

What kind of foundation that on the press or roller mill is best and will the bees build out the quickest and the thinnest after the bees work it out?

Mr. Hall—(Showing a sample made on the Pelham mill) The Pelham mill or Given press.

Mr. Holtermann—I fail to see why the Pelham mill should be any better in this respect than the Root. I also think Mr. Taylor, in getting his samples of comb foundation did not consider many points in the making of comb foundation which are very important.

How do you avoid the building of brace combs?

It is in the blood of the bees not the race. Accurate and correct spacing  $\frac{1}{4}$  inch on top three-eighths inches every other place.

A vote of thanks was passed to Mr. Thos. Wm. Cowan, Editor of the *British Bee-Journal* for the interest he has always taken in Canadian Bee-Keepers and especially upon the sugar honey question. After the usual formal votes of thanks the convention adjourned.

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## They Hum! They Do Not!

IS IT NATURAL AND NORMAL FOR BEES TO  
"HUM" IN WINTER QUARTERS?

(Written for C. B. J. by G. W. Demaree.)

MR. EDITOR—This question is up again. The question is not as to whether or not bees sometimes hum or roar during the bitter cold weather, but do they "hum" or "roar" under normal conditions during zero weather when undisturbed in their winter quarters? This is the question. Bees may "hum" in the cellar, and may hum when sick or disturbed anytime or anywhere if there is life and energy enough in them to do it. But in a state of health and quiet, I say from fifteen years experience that no sound can be heard from any hives in my apiary if the temperature is below the freezing point. I live in a moderate climate, but the weather sometime gets on a "tare" for a few days at a time, and I have seen the temperature flash down to 20° below zero, and I have often seen it at zero, and at such times I have walked in my apiary and everything was as still as the grave.

What I have always claimed is, that perfect silence is the natural state of bees in their winter quarters, in cold weather.

Christianburg, Ky., U. S.

## FOUL BROOD.

### Its Symptoms, Treatment and Cure.

Wm. McEvoy—Foul Brood Inspector for Ontario.

Foul brood is a disease of the larva which originates from the rotting of uncared for brood, and is caused by brood being fed in corrupt cells, where the larva food is mixed with the remains of decayed brood. The larva that dies from foul brood, first turns yellow, as it decays further it becomes a brown, ropy matter that will stretch over an inch if a little of it is lifted from the cells. Some of the capped brood will have a small hole in the capping. More brood dies of foul brood at the age of six, seven, eight and nine days than at any other age. When the foul brood matter dries down, it leaves stain marks on both the lower side and bottom of the cells. Then without any cleansing the queen lays in these same stain marked cells, and during a honey flow without cleansing out the cells where foul brood dried down, the bees store honey in these stained marked cells, and seal many of them. Then the honey stored in the disease cells is fed to the sound brood. After that the colonies become very weak in bees, and the robbing sets in as soon as the honey season ceases. Then the bees from other colonies come and rob the foul brood colonies of their deadly stores, and carry the disease in proportion to the amount of diseased honey they convey to their hives.

It is eighteen years since I discovered that the honey was the *only criminal* that had to be fought in curing an apiary of foul brood. It has always been a great consideration of mine in curing apiaries of foul brood, to manage the business so as to leave every colony in the best possible condition for business when cured, to do this a great deal of judgment has to be used, and every apiary treated according to the condition it is found in. I have found some apiaries of twenty colonies in such a horrid state with foul brood, and every colony so weak in bees, that I ordered all the combs to be made into wax at once, and all the bees put into six or seven hives before stating to cure them of the disease. In other apiaries I have found more or less foul brood in every colony, with large quantities of sound brood. When I find an apiary in this condition, I make good use of the brood, and end the season with the full

number of colonies all cured and in good condition. I will now give my method of curing foul brood, which I believe will be followed by the bee-keepers of every land because it does not, and cannot fail, to cure the worst cases of the disease ever seen. In the honey season when the bees are gathering honey freely, go to the strongest of the diseased colonies in the evening, and remove the combs, and shake the bees back into their own hives, then give them comb foundation starters, and let them build combs for four days, to store the diseased honey in. In the evening of the fourth day remove the comb and give them foundation to work out, and then the cure will be complete. Fill empty hives with the foul brood combs that have been removed from the strongest of the diseased colonies and then place these hives on the weakest of the diseased colonies, and leave them there for a week or eight days, so that the sound brood hatching out during that time will strengthen the weak colonies. Then at the end of the week or eight days, remove all the combs and shake the bees into a single hive, then give them comb foundation starters, and let them build combs for four days to store the diseased honey in. In the evening of the fourth day remove the comb and give them foundation to work out, and then the cure will be complete. All work should be done in the evenings so the bees will become settled down nicely before morning. And if any curing is to be done when little or no honey is coming in, the bee-keepers must feed plenty of sugar syrup in the evenings to take the place of a honey flow. The Dr. Miller feeders are just the thing for this purpose. Beekeepers must never feed any honey from any foul brood colony without first boiling the honey. I always warn against the honey in all places. Before extracting from the diseased combs, all the combs that were not sealed must be cut off the frames or some of the decayed brood will be thrown out with the honey. All the foul combs and all the new combs that were built in the four days, must be made into wax, and the dross from the wax extractor must be buried, because what runs out with the wax from a steam wax extractor, would not be heated enough to kill the spores, and if it was thrown out where the bees would get at it, it would start the disease again. I will here warn beekeepers, that where an apiary is in a bad state with foul brood, that it cannot be cured by putting bees in empty hives during a honey flow, because the bees a such a time will build combs fast enough to store part of the diseased honey which they took from the foul combs when they were

removed. It was for the express purpose of getting away the diseased honey which the bees took from the diseased combs, that I studied out the plan of giving the comb foundation starters for four days, so as to get the diseased honey started in them. The new combs built in four days *must be removed.*

### Building up For The Honey Flow.

(Written for C. B. J. by Wm. McEvoy.)

As this is the subject for April in "The Bee-Keepers Parliament," I will explain my methods of building up for the honey-flow which begins with me in the fall. In the fall I crowd the bees in every colony or six combs of sealed stores with division boards on each side of the combs. I then pack each colony in a wintering case with four inches of dry leaves on each side front and back, and about six inches on top, I pack the six inches of leaves on the cloth that covers the frames and then place the hive lid on top of the leaves, which allows all dampness to evaporate from the brood chamber at all times. I then cover all with the lid of the winter case. The bridge between the hive and outer case has an entrance in it of about  $\frac{3}{4}$  high by 2 $\frac{1}{2}$  inches long. I keep the snow away from the entrance all winter so that the hives won't become filled with steam from the bees, when the entrance gets blocked up with snow. My colonies come into spring booming in bees and in grand condition for business. Then the brood rearing goes rapidly on in these packed hives where the colonies do not feel the effects of the sudden changes that so often recur in spring. In warm evenings in spring just before the bees begin gathering honey I take out the division boards and fill out the brood chambers with comb. When removing the division boards, if I come across any colony a little short of stores, I put in combs with honey, which I always save in the fall for this purpose. When the bees begin gathering honey from the willows, maples and other early honey producing trees. I go to work in the evenings and uncapped the honey in every colony, put a queen excluder and half-story filled with combs on each colony, I then pack all around and on top of the half-story and then cover all with the lid of the winter case. During the night the bees in these well-packed hives will rush the uncapped honey into the half-story which will leave more empty combs in the brood chamber for the queen. Soon after that the combs in the brood chambers will be filled with brood clear up

to and all along the top bars. The bees will also continue storing honey in the half stories when once started this way. Last spring my colonies went in for swarming at a lively rate before the 20th of May after filling seventy-five half-stories which would average about 20lbs each making about 1500 lbs of honey. As I did not want any increase I raised up the half stories and put a full story on every colony. About the first of June I unpack every colony and leave the winter cases on to protect the colonies from the sun. Colonies that are packed to protect them from the sudden changes that so often recur in spring do much better than unpacked, and for this reason every colony should be packed in spring, and for booming or building up colonies for the honey flow I don't know of any method that will equal the uncapping of the honey in the brood chambers in warm evenings in spring when the bees are gathering honey; and then packing every half story well on the colonies in the packed cases. By doing that more room will be made in the brood chambers for brood when the bees remove the uncapped honey into the half stories so warmly packed. Then by the time the clover begins to bloom every colony will be booming in bees and will be in grand order for business after having gathered a large quantity of honey from fruit bloom dandelion and thorn trees.

W.M. McEVoy,

Woodburn.

March 12th, 1891.

[We are pleased to have this excellent article from Mr. McEvoy. It covers more than the ground in the Bee-Keepers' Parliament, we therefore take the liberty of publishing it as a separate article --Ed.]

### OLLA PODRIDA NO. 7.

By O. Fitzalwyn Wilkins.

If at first you don't succeed,  
Try ag'in;  
May be elbow grease you need,  
Rub it in.

It is now several months since I offered you a dish of Podrida. No. 20 of the American Bee Journal was received a day before date, as usual, and is full of good things, also, as usual. I say "as usual," because I feel somewhat delicate about speaking of the A. B. J., since its change of proprietorship, as did the "old reliable" when complimenting the CANADIAN BEE JOURNAL upon its general improvement after its (C. B. J's.) change of owners. The language used by the A. B. J. concerning its Canadian contemporary I am "candidly candid" (as the Stray

Stinger observes in his sting at Mrs. Harrison's three C's) to admit, is true, and reads thus, "It is a great improvement over its former self. It shows vigor and vim that is surprising, also refreshing."

I very much miss the "After Dinner Thoughts" of Bro. John F. Gates, who often contributed to the columns of the C. B. J., reminding me of "Gates Ajar" by his signature. Hope he has not yet "shuffled off this mortal coil."

I see in the A. B. J., volume xxxii, No. 20, page 680, a very interesting article from "Novice" entitled "What ails the bees?" and he goes on to describe what appears to be the "Nameless Disease" or "Bee Paralysis," as it is sometimes called. The symptoms are the same as those described in the same journal, "some twenty years ago," when the disease decimated the apiaries all over the States south and west of the Ohio river. A few of my colonies were effected in a like manner two years since, when I tried all the remedies recommended in the "old reliable," and found them to be unreliable, finally after killing the queens of the diseased colonies, and introducing hybrid queens from unmistakably healthy colonies, I succeeded in eradicating Bee Paralysis from my apiary. My opinion is that the disease is hereditary, and the result of too closely in-breeding. If you wish, I will at a future date, give my reasons for my belief.

By the way the gentleman who signs himself "Novice" in the article above mentioned will kindly pardon me for suggesting that his *nom de plume* should be "Novice" Jr., because Mr. A. I. Root, editor and proprietor of *Gleanings*, wrote regularly for the A. B. Journal over the signature of Novice, "Some twenty years ago," (won't somebody please hit me with a club?) his first article appearing in March 1871, telling "How I came to be a bee-keeper."

Ladies and Gentleman,—I tell you it warms my old heart, makes me young again, when I take down any of the first ten volumes of the "Old Reliable" and re-read the articles written by such men as Doolittle, Davis, Gallup, Grim, Hetherington, Holdridge and a hundred other bright, particular stars of the bee-keeping fraternity.

Now I expect the "Stray Stinger" will stigmatize me as an old fossil; however, I trust not, for I realize almost as much pleasure from an analysis of his "Stray Stings," as ever I did from the pungent witticisms which emanated from the quill-pens of bye-gone years.

"A Merry Christmas and a Happy New Year" to all, and to all Good Night.

International Bridge, Ontario, Xmas Eve, '93.

[From the date of this it will be noticed

we have had a good stock of articles on hand for some time. What does Mr. Wilkins say now of the CANADIAN BEE JOURNAL. We trust this article will be free of glaring typographical errors. Mr. Wilkins pointed out several in a former issue.—Ed.]



## Strictly Business

I don't believe in bribery and corruption in politics or anywhere else, but want to hold out some *very*, *very* tempting inducements for prompt renewals and for new subscribers. One of great prominence is the "Queen offer," which follows.

\* \* \*

We have been waiting and are now in a position to report the safe wintering of a colony, whose queen has given remarkable worker stock. Not only are her bees good to handle, bright Italians, the hive free from brace and burr combs and the comb comparatively free from propolis, but the bees gather a more than average amount of honey. Some of her daughter queens have thrown workers, showing in a marked manner the same characteristics. We offer to new subscribers, for 60 days only, an Italian queen, (a daughter of this queen) and the CANADIAN BEE JOURNAL for one year, \$1.50. Renewals to C. B. J. and such a queen, \$1.70. Those in arrears, C. B. J. one year and queen \$1.85, or C. B. J. two years and such a queen \$2.50.

Orders will be filled in rotation as soon as weather will permit of proper rearing and mating of queens.

\* \* \*

This does not exhaust the "worth while" premiums, for we have secured a supply of those famous Augite Fire Mats for cooking purposes. Place them under dishes or tins in which food is to be cooked, and the contents will not burn. They are extremely useful and economical. Most husbands are willing to give the good wife everything possible, to assist in her department, and especially so when the gift will prove as useful to himself as to his wife. 1st, one of these fire mats will be sent free to every subscriber who renews his subscription, within two weeks of the time it expires. We want prompt renewals and expect this will bring them. 2nd, we will give one of these mats to any person who secures a new subscriber for one year, and in addition will give the subscriber one of those handsome Art Portfolios. Subscribers in arrears can get a mat by sending \$1.10, or we will mail a mat to any Canadian address for 20 cents.

# The Apiary of S. T. Pettit.

**T**HE ENGRAVING here presented shows the home and apiary of S. T. Pettit, Belmont, as it appeared some years ago. While the hives Mr. Pettit now uses, are not as deep as those presented in the picture, it is a fair representation of his home to-day. The honey house, acknowledged by those who travel, to be the best in the country, stands out prominently. The work shop under which rests that famous and well constructed bee cellar, can scarcely be seen amongst the trees, as also is hidden from view a goodly part of the apiary.

There is, probably, no man in the pro-

his neighbors secure only average results it must be admitted that these phenomenal results are due to good management.

His colonies are exceedingly strong in the spring and throughout the season are managed with the utmost care. Surplus colonies are destroyed in the fall of the year. Mr. Pettit is a hard worker and extremely particular about having everything done thoroughly, there must be no guess work; the slightest detail, to many a bee-keeper not worthy of notice, must be attended to.

He has done much to establish the fact that bees can be wintered with just as great a certainty as any other live stock on the



THE HOME AND A PORTION OF THE APIARY OF S. T. PETTIT,  
BELMONT, ONT.

vince who has made more money out of bee-keeping. He has never made it a point to have many colonies, spring count being generally under 100 colonies, but he has made it his aim to manage them well. His experience with bees covers nearly twenty years and he has from one season's crop of honey secured over \$1000 in cash. Last season (1893) from 79 colonies, spring count he secured a little over 12,000 pounds of honey and in the past he has done even better than this. Some may say, Mr. Pettit must be in an exceptionally good

farm. He does not know, from practical experience what winter losses are, having his bees always strong and ready to avail themselves of any honey flow, he has only failed to get a crop one year. Mr. Pettit has not responded much to frequent solicitations to contribute to the apicultural press. Being a successful man the CANADIAN BEE JOURNAL is to be congratulated as having him a contributor amongst many others.

[We may in a future number give the apiary in working order.—ED.]

## SUCCESSFUL WINTERING.

SOME GOOD SUGGESTIONS WRITTEN FOR  
THE CANADIAN BEE JOURNAL BY  
C. H. DOBBERN.

Much has been written about cellar wintering of late, and some improvement has no doubt been made in the general wintering of bees, over the hap-hazard ways of years ago; but it seems to me that much is yet to be learned.

Usually the bees are left out-doors too late. When extreme cold weather comes, with its accompanying snow and ice, it is then too late to secure the best results. If removed to the cellar at such a time, it is not only disagreeable work but disturbs the bees greatly, and as the combs are covered with frosts, the results can be easily imagined. Another point is that often there is little or no attention paid to the quantity, or quality of the food on which they are expected to winter. I believe that more bees are lost every year by simple starvation, than in any other way. Usually too, such colonies have almost enough, so that all the honey they have consumed is a clear waste.

But supposing the bee-keeper has used all due care in preparing the bees just right, is it not too often the case that they are put into a damp cold cellar, where the combs soon begin to mould and become dripping wet? I do not agree with Mr. Doolittle, that bee cellars require no ventilation. Very few cellars can be made dry enough, and even if they can, some ventilation is essential, to carry off the moisture that comes from the hives, especially where many are wintered together. I have generally wintered my bees by setting the hives on a few pieces of scantlings, not more than six to eight inches from the cellar floor, but in taking them out in spring, I have often noticed that the hives on top of the tiers, (I store them four or five high), came out much the best. Studying over this matter, the thought struck me "why not winter the bees in the top part of the cellar?" Accordingly, this year I made some trestles of 2x4 strongly supported, of about two feet height and as long as the cellar is wide, upon which the hives are arranged in tiers of five high. This places the upper hive within about four inches of the plastered ceiling over head. As fast as the bees die they find their way to the cemented cellar bottom

and one can occasionally crawl under the hives, or send one of the boys, with a counter brush, and sweep up, and remove almost every last dead bee from the cellar. I do not know whether the foul smell of bee cellars toward spring, is any real detriment to successful wintering or not; but it is certainly a great satisfaction to have everything sweet and clean.

My method of ventilation is by a small brick furnace, placed at one end of the cellar, and connected with the chimney above by a six inch stove pipe. This pipe should be of galvanized iron, as a current of moist air is constantly passing through it, and I find common iron soon rusts out. Perhaps a better arrangement would be to build the chimney from the cellar bottom. This will give abundant ventilation without any special arrangement for the air to get into the cellar. In very severe weather a fire can be made, which will speedily change the air in the cellar without lowering the temperature. I object to all heating by means of oil stoves, whether of living rooms or bee cellars, unless means are provided for carrying off the draft of air to the outside. My bees are arranged as above described, and so far never wintered so well as now.

Milan Ills. U. S.

## Honey at The World's Fair.

Mr. Editor.—On page 150 of the CANADIAN BEE JOURNAL for the present month (Feb'y) is a communication from Mr. R. McKnight, in which he asks me a question. On first reading I thought I would pay no attention to it, and would not if the question was the only matter that needed attention.

In speaking of apiarian exhibits from Ontario and the states at the World's Fair, Mr. McKnight says, "the exhibits \*\*\* were grouped together, and their relative merits have been put upon record, their quality having been tested and pronounced upon, by an able and upright American Bee-keeper."

My understanding of the principle upon which the awards were made, and I believe all the other superintendents of exhibits understood it the same way, was that any article or exhibit that had enough merits received an award without any regard to their "relative merits;" and as there were No. 1st, 2nd, 3rd or 4th premiums offered there was no necessity for the judge to decide as to "relative merits."

To illustrate:—J. B. Hall; J. Newton; J. B. Aches; Goold, Shapley & Muir and S. Cornell, of Ontario, each received an award for clover comb honey as did many

others in the States. Can Mr. McKnight, or any one else tell us from the "record" he speaks of as to which was the most worthy of an award? I presume it was the appearance and not the flavor that led the judge to awards to the above named exhibitors; and I hardly believe that any intelligent, unbiased person would say that Ontario had better or nicer or even as nice looking honey on exhibition than did some of the States.

Mr. McKnight goes on to ask, "what does that record show?" and answers by saying, "It shows that the combined states of the union showing at least ten times as much honey as Ontario exhibited, took 28 prizes, and Ontario took 14."

"The record" doesn't show any such thing, and any one, with even a small amount of good common sense ought to know better (and care enough for their reputation) than to make such statements.

If we are to take the statements as to the "World's Fair Awards," on page 160 of the same journal that Mr. McKnight's statements are in, as the "record," it (the "record") shows that the ten States referred to by him received 45 awards and Ontario none.

But Mr. McKnight's way is not a fair way to view the matter. The 10 States were not in competition with Ontario neither was Ontario in competition with the ten States. Each made their exhibit separate from and independent of all others, and as a matter of course the different kinds of honey in each exhibit were generally duplicates of the honey in the other exhibits.

He says "the record" shows that New York took 7 prizes; Ohio, 4; Mich. 4; Ill., 1; Nebraska, 1; Ontario, 14; etc.

Isn't it wonderful what a large ability some people have for getting wrong impressions and making erroneous statements when they are interested parties.

As nearly as I have been able to learn, and I don't claim to know, nor that the "record" shows it, New York received 12 or 14 awards; Ohio, 9; Mich., 7; Illinois, 7; Iowa, 5; Neb., 4.

Now Mr. Editor let's do a little figuring, assuming that Mr. McKnight's statement that Ontario took but 14 prizes, is truthful.

Ontario 52 exhib.,	rec'ed 14 awards;	1 to 3.71 exhib.
N. York 52	" " 14	" 1 3.71
Iowa 16	" " 5	" 1 3.20
Illinois 18	" " 7	" 1 2.57
Ohio 16	" " 9	" 1 1.77
Mich., 9	" " 7	" 1 1.28

I have omitted the other five state exhibits, Nebraska, Minnesota, Wis., Indiana and California, because I have no figures to show how many exhibitors there were in their exhibits, but I have no doubt that

their average was much better than Ontario's showing. Ha! Ha!

By the above, we see it took 52 Canadians to get 14 awards, and compared with the other exhibits don't seem to be much to "brag of." It may be said that some of the awards in most of the exhibits were on beeswax or supplies, but that would change the ratio of awards to exhibitors but very little.

Mr. McKnight also says, "It ought to be borne in mind that some of those States had three times the quantity of honey Ontario showed \*\*\*" and conveys the idea that "Ontario took \*\* over three times as many (awards) as any other State."

Let's see about the desirableness of having "it borne in mind," etc. I am not sure as to the amount of honey Ontario and New York had on exhibition, but from my recollection of what the superintendent of the Ontario exhibit told me, I think it is safe to say Ontario had about 4,500 pounds of honey on exhibition, and New York probably had about the same. Without doubt Illinois had the largest honey exhibit of any, and those in charge of the exhibit claimed to have 7,707 pounds and over a ton and a quarter less than three times as much, and if Mr. McKnight is right, (which I very much doubt) about Ontario receiving fourteen prizes, his statement that she took \* \* \* over three times as many as any other state" must be counted as "father to the wish."

Entries for awards were made in the name of the exhibitor, and if Illinois had had as many exhibitors as Ontario and received awards in the same proportion she did, she would have received nearly 21 awards to Ontario 14; Ohio about 28, and Mich. about 41.

Would it not be well to suggest that it ought to be borne in mind that Mr. McKnight is not very well posted, or is trying to get even with me on old scores, for he goes on to say, "Will Dr. Mason now admit what we aforesaid affirmed, and what he denied, that in color, flavor and specific gravity, Ontario beats the world." Our contention has been established in competition with the best product of his own land and under his own nose."

Whew! That's awful to get under my nose in that way, but I guess it can stand it, for it is not diseased and is not troubled with other unsavory odors, except in a second hand way.

I have no admission to make in the line he refers to, for I have no knowledge of his ever claiming "that in color, flavor, and high specific gravity. Ontario honey beats the world," and so could not deny his claim. but I do remember that on either page 167

or 168 of the Canadian Bee Journal for 1886, Mr. S. T. Pettit as President of the Ontario Bee-keepers' Association did say "our fine richly-flavored crystal 'linden' honey is superior to American Basswood honey." And I also remember that when I arraigned Mr. Pettit for the statement, that Mr. McKnight did say that "Dr. Mason, mistakes the facts when he says that Canadians in a wiley way or any other way \* \* \* have sought to destroy confidence in the good qualities of American basswood honey and claim superiority for their own. I challenge him to name a solitary Canadian (apart from Mr. Pettit) who has made such a statement. "One swallow does not make a summer," nor one man a nation, and it is not generous on the Doctor's part to manifest such antipathy \* \* \* because one of our people holds and expresses opinions peculiar to himself, and in which his fellow countrymen do not sympathize."

Does that read much as though Mr. McK. "aforetime affirmed" that \* \* \* Ontario honey beats the world?" Not much but it very emphatically shows that not a solitary Canadian (apart from Mr. Pettit) \* \* \* made such a statement."

I wish there were more men in Canada as truthful, honest and honorable as Mr. Pettit. I don't believe he attends conventions and "gets his Irish up" because other people do not say and do things just as he wants them to.

Now as to "color, flavor and high specific gravity."

There was, in several of the state exhibits honey as light colored (or even lighter perhaps) and honey as dark colored as any in the Ontario exhibit. Some of the light colored being as clear as the clearest of water, and I believe the specific gravity was not excelled, if it was equalled by any in the Ontario exhibit.

So far as flavor is concerned, it seems to me to be "a mess of moonshine" to even make a claim of superiority. Who would be a competent judge as regards flavor. Some Canadians would say no honey could surpass Linden honey in flavor, some would think clover honey far preferable and some would not exchange buckwheat honey for the choicest of any other kind ever produced.

When I began writing this, I had no idea "of stringing it out so," but I don't see where I could leave out any.

A. B. MASON.

Toledo, O., Feb. 15, 1894.

All our dignity lies in our thoughts.

An idle man in the community is a tl. ef.

## THE BEE-KEEPERS' PARLIAMENT.

RE-ORGANIZED—  
IMPORTANT CHANGES.

In February we announced the opening of "The Bee-keepers' Parliament." A number appear to object to the competitive system. That system has therefore been withdrawn, and there will be no awards, but as we feel we can afford it, we intend privately rewarding from time to time, those who are painstaking contributors to this department. For some time to come, a subject will be given several months in advance. The contributions to this department must be received by the 15th of the month previous to the number in which the subject is to be dealt with. The subjects will be sufficiently broad, and limited to a certain number of words, to allow ample scope for ample thought and study, to concentrate the best ideas of the writer. We trust every one will take part to make this movement one of interest.

### FOR MAY NUMBER OF JOURNAL.

To what extent is the prevention of swarming desirable? What method shall be adopted. (Not more than 200 words.)

### FOR JUNE NUMBER OF JOURNAL.

Artificial ripening of honey as opposed to ripening of honey by the bees in the hive. What benefits are to be derived from either system? Which is preferable? (Not more than two-hundred words.)

### FOR JULY NUMBER OF JOURNAL.

Suggestions applicable to July, that will aid in the successful wintering of bees. (Not more than two hundred words.)

### FOR AUGUST NUMBER OF JOURNAL.

Suppose that your comb honey is yet on the hive. Handle it until ready for the wholesale or retail market. (Not more than two-hundred words.)

### FOR APRIL NUMBER OF JOURNAL.

Best method of building up twenty-five or more stocks for the honey flow. Begin with the earliest outdoor flowers. (Not more than two hundred words.)

"Begin with the earliest outdoor flowers" to stimulate brood rearing, by feeding a good sugar syrup. Rotate the brood frames as rapidly as filled, keeping the more empty ones in the centre. Let them entirely alone



on rough days and provide a shelter board on the wind-ward side.

Denver, Col.

W. M. BARNUM.

#### HOW TO BUILD UP TWENTY-FIVE STOCKS, ETC.

Examine them as early as possible in March or April after they have had a good fly. Leave only as many frames as the bees can nicely cover, always to contain 5 lbs or more of honey or other stores. Plenty of stores in easy reach encourages breeding with less desire to fly when weather is unfavorable. They should have access to water either by a feeder in the hive or close by. If your hive will permit of such, place frames containing honey or other supplies, so that the bees by going over or under the division board, can work on them. This will keep many at home that otherwise may be tempted to go abroad and be lost. Not only this but bees will live longer when thus occupied and what ever tends to lengthen life until the young brood is hatching freely, goes towards making strong colonies for the expected harvest. Strange as it may seem yet too much flying early in the spring is not desirable. I once had a number of colonies nearly depopulated by one week of summer weather immediately after being removed from the cellar. If you winter in-doors give your bees a fly as early in April as possible, this starts them breeding and if you do not mind extra work put back again for about two weeks, and feed them or not as you choose the former preferable. I do not do this as I have too many, and too much other work to do, but I have done so with great advantage, give another frame as often as required which may be when you find brood on both sides of the outside frame, placing it in the centre if settled warm weather and colonies strong, but if any doubts make it the outside frames.

G. A. DEADMAN.

Brussels, Ont.

#### I DON'T LIKE THE TERM "BUILD UP, BEES SHOULD COME OUT ALREADY "BUILT UP."

Begin in the previous September or October, be sure that each stock has at least 30 lbs, good stores, winter well—if wintered out-doors leave packing on until near swarming time. If wintered in cellar when set out put on the cushion a heavy well-fitting cover, leave  $\frac{3}{4}$  inch entrance from 3 to 6 inches open. Now just let them alone; don't open the hives nor tinker with them in any way; but if you find on setting them out by their weight that some are short of stores feed as follows:—Slip the cushion a little to one side (don't take it off) and close the entrance to conserve the heat, turn back the quilt sufficient to remove an empty card, and put in a filled comb, kept over

from last year, it should be uncapped or partly so. If you have none of these dilute some honey with warm water and with a tea-pot pour it into empty combs. The comb must be held over some dish and at a certain angle. I would use sugar only if I were obliged to, and with great care that the bees use it all up.

S. T. PETTIT,  
Belmont.

March, 1891.

Each bee-keeper must study his own location, climate etc. for himself. No bee literature can help him much in this particular matter.

When the first pollen shows up on the approach of spring, and the bees begin to collect it for spring breeding, I go over the entire apiary, carefully examining every colony, and arranging the brood nests for spring breeding. If any of the colonies are short of stores, they are supplied. At this time all upward ventilation is prevented by a tight covering over the brood nest. I use news papers which are spread over the quilt or board used for a cover.

If the colonies have plenty of stores nothing more is done to them till fruit bloom gives them some new honey. They are then examined the second time, and help needed is promptly given. At this time all queens reared during the preceding season have their wings clipped. One more manipulation fixes them for the harvest.

G. W. DEMAREE,  
Christianburg, Ky.

My method of building up colonies for the clover harvest beginning with the earliest flowers is as follows: As I winter the bees outside I leave them packed in their winter quarters until June. By doing so they are able to hold all they gain and it enables me to spread the brood if desired without any danger of it being chilled; and if cool weather sets in, I feed honey or syrup, which enables the bees to continue brood rearing without any check. Under this system my bees are generally so crowded that I have to put the top stories on before the dandelion bloom is over. Then during the period between dandelion and clover bloom, if the bees have stored sufficient honey to carry them over, which they generally do, I uncap a little every day or two which encourages them to continue brood rearing, or if they have not got the honey, then I continue the feeding until they begin to bring in honey from the field, and if this system is followed out, I guarantee they will be ready for the clover harvest.

A. E. SHERRINGTON.

Walkerton, Ont.

Chaff hives are too expensive and too heavy to suit many bee-keepers. If the bees cover fairly well five or more combs of an eight frame Langstroth hive, put an enamel cloth or several sheets of paper over the winter quilt; above this put a sawdust cushion (it packs down well). The cushion should be put in a super and upon this a lid. The entrance should be contracted. If the colony is below average strength pack the hive in a rough outer case and leave them so packed until the honey flow. Bees should have abundant stores, and be left largely alone. *Never* united until the beginning of the honey season. Brood should only be spread by an expert and not often by him. If the lower story is crowded put on an extracting super and put on no queen excluder until the honey flow begins.

—Ed.

## FIRST STEPS IN . . . . . . . . BEE-KEEPING.

KEEPING EVERLASTINGLY AT IT  
BRINGS SUCCESS.

QUESTIONS SENT IN BEARING UPON FIRST STEPS  
IN BEE-KEEPING WILL BE ANSWERED IN THIS  
DEPARTMENT BY THE EDITOR.

WORK FOR APRIL.

**S**OME people think that all the difficulties in bee-keeping are "wintering." The fact is that there are difficulties connected with the keeping of bees during every part of the year. The person who keeps bees cannot make the greatest success attainable, without getting ideas from others. Even our most advanced bee-keepers cannot afford to isolate themselves, but they must fall behind in the race, unless they exchange ideas with their fellow bee-keepers. How many are keeping bees without knowledge, without a bee journal, and without a good standard work to guide them. Some fairly successful, but this success is only an indication of what might be attained, with guidance and thought from other practical men. The spring of the year is one peculiarly important to the bee-keeper. Many complain that they receive no surplus. They often wrongly gauge the honey flow by the amount of surplus they gather, when it is often an indication that the bees have not

been strong enough during the honey flow, to gather more than the requirements of the hive.

This is the month that most of the bees wintered in the cellar are placed upon their summer stands. Those having a large number of colonies require no instructions from me. To some others it will be well to say: Carry your bees out early, in the morning of what promises to be a beautiful day, and one with the temperature high enough to enable the bees to fly freely. As bees are liable to discharge accumulated matter, no washing should be put out that day. After the bees have had a cleansing flight and have settled down quietly, the body of the hive should be raised from the bottom board (all hives should have movable bottoms) and any remaining dead bees scrapped from the bottom board. This is to a bee-keeper a matter of ten seconds. To the bees it often means days of toil and the sacrifice of many other bees.

A colony which has been wintered well and having sufficient stores should, with a cushion on top, build itself up, and the beginner had better leave it alone. It is only upon rare occasions that the experienced man can do any good by spreading combs of brood. Of first importance is that of seeing that the bees have sufficient stores. See that they have plenty or they will curtail brood rearing. Never feed liquid by means of a feeder, it excites the bees and tends to demoralization and robbing. Feed a cake of sugar made from sugar melted with water or honey made into a solid cake. The cake should be made flat as described in a previous article. If the colony is below medium strength, it is well to contract the brood chamber several combs, by means of a division board. Have the entrance of the hive opposite the portion of the hive not containing the combs, this prevents robbing.

I am not in favor of uniting colonies at any other time than just before the honey. Give weak colonies careful nursing by means of packing, contraction and stores, and let them build up or die until the honey flow is reached.

In reply to J. H. L., on page 186, would say that perhaps in British Columbia you are troubled greatly with cold winds. The bright sun inclines the bees to fly, and the wind chills them. Again in this country loss of bees in the way you state would indicate that the bees were weakened. In reply to question two, I am inclined to think the Langstroth hive is the best hive for

comb honey, when you consider that bees in such a hive are more readily sold. Again supplies are more readily secured for this hive. If you have only two hives and intend to engage in bee-keeping to any extent, I would suggest that you discard the hives you now have. If you have a large number on hand, the hive you have, especially the larger, will give good results. After all when it comes to results, with a hive not shallower than the Langstroth or deeper than the Quinby, management rather than the hive gives results.

Question—I saw lately about your Italian bees and I have some of the old kind. Can the Italian draw honey deeper from the flowers? Some state they can. Also will a queen change the bees in a swarm, and also swarm in one season. Please tell me all particulars. I want things to pay. What will be the right time to send for a queen, and what will be the price?

Answer.—From the above it is quite evident you know very little about bees and we think it would pay you better to get a good book upon bee-keeping, or even a bee-journal in preference to a queen. The Italian bees are supposed to reach more deeply into the flowers, but in this respect, there is probably no great difference. The Italian bees are for other reasons preferable. Before attempting to requeen hives, learn more about bees. To begin keeping bees without a great deal of outside information is likely to prove about as successful as for a young man to begin the practice of medicine without outside study and help, by practicing on sick people. There would be a good deal of bad luck in each case. Prepare yourself for what you undertake, take an interest in your work, which will sharpen your observation, and success is attainable in many cases, where failure is often written across the pages of our undertaking.

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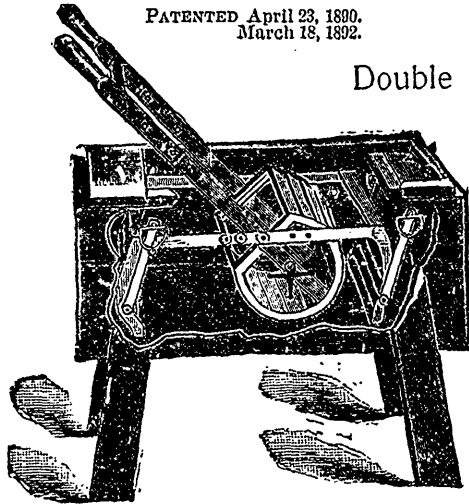
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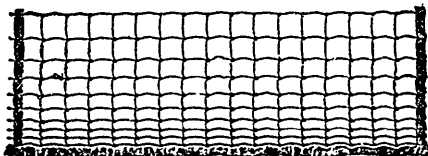
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