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D. A. JONES & Co., Publishers.

OUR OWN APIARY.

WE were unable last week to tell our readers anything about our own apiary, as we had had no weather fit for our bees to fly. From the time we set our bees out of winter quarters, and the examining of the clamps from 20th to 24th of April, there had not been one day suitable for handling bees, and only a few hours altogether that the bees could fly out; in fact we have had snow, sleet, frost and cold damp weather almost continuously. Within recollection we have never known such an unfavorable spring as this has been thus far. The weather commenced getting warmer Wednesday 13th. A great many who had purchased bees and queens expected them long ago, but as it was not safe to ship, we were forced to delay doing so in their interests. During the last two days we have got off over 150 colonies, and we shall continue at that rate until present orders are filled.

We told you about clamp wintering and how the damp sawdust with straw next to the hives had brought the bees through in fine condition, but after three week's bad weather the dampness from the sawdust seems to have affected them injuriously, and some of the colonies are not now nearly as good as they were at that time. You see that damp sawdust in spring is no advantage. Those set out from the bee-house and having no packing around them appear to have suffered much less than some of those now in the damp sawdust clamp. Had the sawdust been dry this would not have been the case, as is proved by examination of those in the other clamp, which have not suffered but

rather improved. The weather has been so very unfavorable that in many colonies during the cold spell brooding ceased entirely, and we have received many reports of bad cases of spring dwindling. Our bees are in much better condition than could have been expected after the severe weather against which they have had to contend. The reports from South Western Canada are more favorable and the weather has not been so severe. At this writing, (May 16th) everything is looking very favorable, both honey and pollen being gathered from willows.

FOR THE CANADIAN BEE JOURNAL.

PRODUCTION OF COMB HONEY WITH DEEP FRAMES.

FROM reading the writings of some of the correspondents to the different bee-papers, one would form the impression that it was impossible to secure a good yield of comb honey unless the shallow, or Langstroth, frame was used; some believing that all should "fall into line" and use the L. frame, regardless of all else save that said frame shall be the one that is adopted by all apiarists. Only last week I was reading in *Gleanings* the surprise manifested by the editor, in finding that our Canadian friends use a deep frame, as he breaks out in these words: "It seems to me a little strange that a deep frame should find so much favor in Canada, when our bee-keepers in the United States so universally decide in favor of the shallow L. frame." With Dr. Southwick and others, I deny that the L. frame is "universally decided upon" for use in the U. S., and if Friend Root will consult convention reports, rather than his order books, he will deny it also. How could his patrons be other than those who order the L. frame, in-as-much as he tells all, that if they order other than his regular line of goods they must expect delays, as he fills such orders in preference to any others. In this way many are compelled to use the shallow frame who would use deep ones in preference had they machinery to make their own. When I first started in bee-keeping I used the L. hive as there was an agent selling said hives in this county at that time. After using them for two years I thought I would try the Gallup hive, as at that time E. Gallup was an excellent writer for bee periodicals. After one year's trial, the Gallup or deeper frame gave me so much better results, that the next year all my bees were transferred to such hives, and

to-day finds no other frame in my yard save the Gallup. During the past twelve years I have for several seasons worked the L. frames for other parties when working bees on shares, but have never been able to secure as good results as I have when the yard contained deeper frames. In working for extracted honey I might do better with the shallow frame, but for comb honey, give me the deep frame every time. The main secret in getting comb honey is in getting the section as near the brood as possible, and where the shallow frame is used the bee-keeper must resort, in order to get enough sections on the hive, to the tiering up plan if he would meet with any kind of success. This places the second tier of sections a great distance from the brood, so that the bees work very slowly in comparison to what they do when the sections are closer to the brood. This is proven by its taking nearly as long for the bees to complete the tiered-up sections, which were two thirds full when thus tiered up, as it does to fill those lately put on next the brood. My hives which invariably give me the best results are worked on the following plan: When the sections are placed on the hive the bees are allowed only what combs the queen is liable to keep filled with brood. On either side of these combs are placed sections which come within three-eighths of an inch of said brood while over the top are placed sections partially filled, or those filled with empty comb or foundation. These top sections come within half an inch of the brood, while those used on the Heddon tiering up plan are nearly one inch away. The reason for putting the partly filled sections on top is that bees will build comb the fastest at the side of the brood, while they will store honey much the fastest immediately above the brood. Thus I get the comb built when the bees do it to the best advantage, while the honey is stored just where their instinct teaches them it should be. As soon as the top sections are completed they are taken off and those from the sides, now filled with comb, are raised to the top, and empty sections containing only a starter are again placed at the sides. Thus I keep on till the season draws to a close, near which I cease to place sections at the sides so as to compel them, as it were, to complete all the sections they have commenced to work on.

After many years of experience I am convinced that the above is the only correct plan to secure a large yield of comb honey. While other plans may give from a fair to a good yield, yet none which I have ever tried can begin to compete with this when each and all are tried in the same apiary. When not so tried, it is only guess work to decide which is the best plan, for

location makes all the difference in the world.

G. M. DOOLITTLE.

Borodino, N. Y.

Friend Doolittle, allow us to thank you for your very excellent article; it is a very appropriate one, especially for our Canadian friends. Your experience agrees with ours, that more honey can be secured with the deep than with the shallow frame. We first commenced with the L. frame and used it for many years. For fourteen years we used it side by side with the deeper frame and the difference was so marked in favor of the latter that we were forced from a "dollars and cents" point of view to adopt the deep frame exclusively. Some of our Canadian friends have taken double the amount from the deep frame when tried side by side with the shallow. The large number experimenting this season will doubtless decide some points that are yet doubtful in connection with the production of comb honey; but there is one point we are already decided upon and that is that the hive that will produce the most bees at the right time to gather the honey flow, and from its peculiar construction be less liable to induce swarming, is sure to give as good if not better results than any other. We must have the bees if we expect to get honey.

FOR THE CANADIAN BEE JOURNAL.

DUTY ON BEESWAX.

NUMBER five of the CANADIAN BEE JOURNAL has just come to hand and among the many interesting articles I find one by Mr. Geo. Brown on this matter. At the outset I wish to remark that after stating my views on this matter I have neither the time nor the wish to enter on further discussion, if such arises, and the matter as far as I am concerned will end with this article. As President and Chairman of the committee referred to by Mr. Brown, it is in order for me to do so. I wrote early in the session to each member enquiring if they would attend a meeting if one was called, and in answer had some replies to the effect that the expense of travelling to Toronto and the delay there was a

serious one, to be borne of course by such for the honor (?) of being a member of that committee. Some time after this I received a letter from one of our members who had been at work in this matter stating that the M. P. at Ottawa, representing his constituency, was willing to give his aid in the matter, and that the tariff revision was then going on, and mildly suggesting that it might be in the interest of *some one* for the President to go to Ottawa and have the duty taken off wax, and put on foundation. As it would have taken some of the funds out of my own slender purse to have done this and if I could have applied to the Treasurer to recoup me, it no doubt would have rendered bankrupt the Ontario Bee-Keepers' Association, I concluded to stay at home more especially as I never heartily approved of the tariff tinkering business at present going on. It is just possible that if Mr. Brown ever becomes an extensive bee-keeper he may see the day when he will have beeswax to sell and have reason to be thankful that that duty was neglected by this committee, or again he may see fit to be dissatisfied with the foundation manufactured even by progressive Canadians and may think that his bees might relish a little Yankee comb foundation as a change of diet. In that event he, I have no doubt, will be thankful for the appointment of this "tardy" committee, which has left him free, "to buy in the cheapest and sell in the dearest market." In conclusion I would just request any who feel inclined to sting this committee into activity to read the concluding sentences of the Editor's remarks on Mr. Brown's letter and "read, mark, and inwardly digest "them."

J. C. THOM,
Chairman of Com.

Streetsville, Ont.

We may say that we looked into this matter pretty fully ourselves and find that that there are many who object to the duty being removed from wax, and as the great mortality will obviate the necessity of importing much wax this year, we shall have plenty of time to discuss it before another season. We may say the Dr., as President of our Association did his duty in connection with the matter. We think there will be no difficulty in getting all the foundation and wax needed this year without importing any.

FOR THE CANADIAN BEE JOURNAL.

SPRING FEEDING.

I AM pleased to receive a sample copy of the CANADIAN BEE JOURNAL. I think it is as bright, readable, and well edited as any bee paper in existence, and is just what the people of Canada have been looking for during the last few years in which beekeeping has become so popular. There is a question I would like you to answer in your next issue if there is room. I have my bees in a clamp and not knowing how they are off for stores I would like know the best method of feeding them as I think feeding them in the spring would do them a certain amount of good, even if they have lots of stores, as it would start them breeding. Would you advise me to unpack them and feed at the entrance by tipping the hive back a little? I put away five colonies in the fall and they were about five months without a flight, but to-day they appear in first class condition. I need hardly remark that in my estimation the Jones' hive is the best extant for wintering. I know a man in this neighborhood who uses the shallow frame, and he lost every colony he had. I again wish you every success in your enterprise.

WM. H. WESTON.

LONDON, Ont.

The best way to feed your bees in the clamp is to lift out a comb or two from each hive, hold it in a slanting position over a dish and pour them full of sugar syrup, after which set them back in the hives where the bees can get at them. If the bees have plenty of honey this need not be done; just uncap the honey and cut the cells down to about the same thickness as the sealed brood below the honey. They may then be placed closer together leaving about $\frac{3}{4}$ inch between the combs. The uncapping of the honey will stimulate them to brood rearing. A little food can be given them at any time that the stores become scarce in the hive. We do not like to tip the hive back and feed through the entrance as we think it is liable to incite robbing, but you might, if your hives are water tight, lower the back a little and pour some food on the bottom board, but putting the combs containing stores behind the division

board is all that is necessary to stimulate them to brooding until first bloom.

FOR THE CANADIAN BEE JOURNAL.

BEEs ALL RIGHT.

I AM glad to be able to report that I have succeeded in bringing all my bees through the very long and severe winter and now have them in the best shape I have ever had them in the spring, all having queens and being strong in bees. I had four in the cellar and three outside. The cellar was not ventilated and during a great portion of the winter the temperature was down to thirty. They had no flight from the time they were put in until set out yesterday—about five months and a half. They had a cushion of forest leaves over them and unwisely the caps were left on. About a month ago I lifted them off when I found the cushions wet and mouldy. The three outside were put into packing boxes, one packed in forest leaves and two in chaff. The chaff only came up as far as the caps which I left on. The half-story was filled with cushions of leaves. They were fed entirely on syrup. In September I took away the combs having most pollen and crowded the bees into the smallest space I could, nearly all having only five combs. I then fed them about thirty pounds of syrup each. Those outside consumed the most stores and were much the driest, but these are the only points of difference I can see. I attribute my success to the absence of pollen and to the bees being crowded into such a small space. It is evident that some of the rules laid down by beekeepers have exceptions. One is that the temperature must be kept about 45° in cellars. Had the caps been left off those in my cellar I am of the opinion that they would have kept dry though the temperature was down near to freezing point a great portion of the winter.

Bond Head, April, '85. J. CARSWELL.

You are right Friend Carswell about the removal of the caps. Had they been removed no doubt your bees in the cellar would have remained fully as dry as those which were packed and left outside. We are glad to learn that you have been equally as successful in guarding your little flock as you have been in guarding and caring for the spiritual wants of your larger one.

THE CANADIAN BEE JOURNAL from now until January, 1886, for 60 cents.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear each week, Queries and Replies; the former may be propounded by any subscriber, and will be replied to by prominent bee-keepers, throughout Canada and the United States who can answer from experience, as well as by the Editor. This Department will be reserved for the more important questions, others will be answered in another place. We hope to make this one of the most interesting departments of the JOURNAL.

WHAT DISTANCE SHOULD COMBS BE APART?

QUERY No. 13.—QUEBEC, QUE.—In preparing colonies for winter, how far apart should the combs be placed to give the best results?

MARTIN EMIGH, HOLBROOK, ONT.—If the combs are well filled with stores, 1½ inches.

G. M. DOOLITTLE, BORODINO, N. Y.—One and one-half inches is what I use. Have tried greater distances but see no advantage in more than 1½ inches.

DR. A. B. MASON, WAGONWORKS, O.—I have not experimented, having wintered successfully the last six winters with combs the same distance apart as in the summer.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—Have experimented a little but not much on this point, and came to the conclusion to leave combs during the winter the usual distance apart, same as in summer.

DR. J. C. THOM, STREETSVILLE, ONT.—As my greatest experience is from indoor wintering, I find that it is not necessary to spread combs for this purpose. For open air wintering I would take out the seventh comb and occupy the same space with the six remaining.

H. D. CUTTING, CLINTON, MICH.—If a good strong colony, I leave the frames same as in summer, 1½ inches from centre to centre of frames. If a small colony, crowd up as close as possible, and have the bees get around, then put in one or more division boards.

S. CORNEIL, LINDSAY, ONT.—Some years ago I spread the combs in the middle of the brood nest so that in some cases they were 1½ inches and in other cases two inches from centre to centre. In spring found that the bees left the very wide spaces and clustered at one side or the other where the combs had not been spread. Since that time I have left my combs as they were in summer.

H. COUSE, THE GRANGE, ONT.—I don't think it advisable to spread the combs much, as this

requires to be done early in the fall to allow the bees to extend the cells in which the feed for winter is to be stored; consequently there will be considerable brood in some hives, therefore endangering its being chilled, and also giving less space for the colony to raise young bees for wintering. I think $1\frac{1}{2}$ inches from centre to centre sufficient.

ALLEN PRINGLE, SELBY, ONT.—In the month of August, or during the last honey-flow, spread the frames you intend wintering upon well apart, $2\frac{1}{2}$ inches at least from centre to centre of frame. Do this upon returning the frames to the hives after extracting them the last time for the season. The bees will then make good thick combs of honey for winter stores, thus giving them more room for clustering beneath their food where they ought to be. In September or October when you are preparing for winter, crowd the frames up together leaving only space enough between the combs of honey at the top for the bees to pass freely.

BY THE EDITOR.—We prefer to have the cells of our combs lengthened out so that the top half of the comb is very much thicker than usual and have them sealed full of good stores. That gives more than double the space below for bees to cluster; but before putting them into winter quarters we set the combs close together so that the cappings almost touch, leaving barely room enough to allow a bee to pass between; by this means about two-thirds of the number of combs will contain the necessary honey for wintering and the bees will consume less when clustered in this way, and with us have wintered better. In warm climates this would not be so important, but when long confinement is necessary, this method has given us best results.

REMOVING DEAD BEES FROM COMBS.

QUERY NO. 14.—FLESHERTON, ONT.—A large number of my colonies are dead. Many of the combs are filled with dead bees with the points of their abdomens just sticking out of the cells. Shall I remove them, if so, how? or will it do to leave them as they are, and put them into other colonies in the spring

and let the bees take them out?

MARTIN EMIGH, HOLBROOK, ONT.—Keep the combs in a dry place until the bees have got fairly started in the spring, then put them in your strongest colonies, one or two at a time.

PROF. A. J. COOK, LANSING, MICH.—It might be well to brush them gently, yet if put into hives with good vigorous colonies, one or two at a time, all will soon be cleaned.

S. CORNELL, LINDSAY, ONT.—Tap on the frames with a light hammer so as to start the dead bees partly out. Then pick them out with a needle. The bees will cut the comb away if they are allowed to remain.

DR. A. B. MASON, WAGONWORKS, O.—Leave them as they are if you have anything else to do, or if free from honey place them where the mice can remove them for you, and if they do it as nicely as they have for me, you will, for once, be pleased with their work.

H. D. CUTTING, CLINTON, MICH.—If you have many colonies you cannot afford to remove the dead bees. A strong colony of bees can remove them much faster than you can, but don't give too many frames at once.

G. M. DOOLITTLE, BORODINO, N. Y.—Place the combs in a dry place and keep apart so the bees will dry down rather than mould or rot. After they get dry give to any colony, and no harm will result. I see it advised to pick these bees out of the comb one by one, but I always thought the bees could do it cheaper and better than the apiarist.

DR. J. C. THOM, STREETSVILLE, ONT.—Mice, I understand, will pick out the bees and board themselves at the same time. I have picked them out with forceps, but it is a tedious business. This was before the days of foundation. When placed in the hives the dead bees are sometimes removed and septum of cells also. You can shake a great many out of tough old combs.

R. MCKNIGHT, OWEN SOUND, ONT.—The work of removing dead bees is both tedious and unpleasant. First brush off all that can be removed in that way without injuring the cells, then if you are not very busy sit down and pick the remainder out at leisure. The bees will do the work but it is just as unpleasant and tedious for them to do this duty as for their keeper.

DR. C. C. MILLER, MARENGO, ILL.—If given to strong colonies, not too many at a time, they will clean them out. In any case they should be

put in a good place to dry, and then if not given to the bees to clean, there are several ways to get out the dead bees. If only a few, they can be picked out by taking hold of the wings or by using a pin or crochet needle. Some let mice clean them out; others throw them out with the extractor.

H COUSE, THE GRANGE, ONT.—I would advise removing what bees you can. A good plan to do this is to catch the frame in both hands near the lower ends of side bars, holding the frame horizontally and tapping the top bar on something which will jar most of the bees out of the lower side, then reverse. This should be done when combs are not brittle. Then place them about an inch apart in a room free from dampness, using them in your strongest colonies as fast as they require more combs.

ALLEN PRINGLE, SELBY, ONT.—If your time is not precious and hangs a little on your hands, get a small cobbler's awl with a little crook at the end and proceed to lift the little defunct fellows out "tail end first." This is what I used to do years ago when I had more time and less wit. But if you have plenty of other more pressing work to fill in your time let the live bees remove the corpses of their dead comrades, only don't give them too much to do at a time or you will completely discourage them.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—Shake out all the bees that readily come out by gently tapping the frame of comb on something sideways. Store combs away until needed, spreading them at least about twice as far apart as they usually hang in the hive. If stored close together, the dead bees that have not shaken out will cause damage to the combs by moulding. When the combs are needed, the remaining dead bees will be quickly removed by the colonies to which they are given.

BY THE EDITOR.—We have removed them in various ways, with tweezers, light pincers, forceps, pins, holding the point of a slender needle in lamp blaze till the temper is drawn, then turning a slight hook on the end which takes them out easily. Set them about an inch or two apart; when mice are plentiful they will remove them, but when removed by mice or bees, more or less of the cells are cut down. We have also tried putting them in a very dry room until they become thoroughly dried out, when many of them can be shaken out; if left in a damp place they are sure to mould.

SUNDRY SELECTIONS.

GARRETT M. BLOUGH, PAISLEY, ONT.—Our bees wintered badly; out of fourteen colonies we have seven left. The bees around here are nearly all dead.

ALEX. CLUNIS, CLAUDE, ONT.—I had eighteen hives and have lost five. I will note my experience about hives, and how I think they ought to be constructed.

GEO. J. HALL, KUMNEY, N.H., writes under date, May 11th, 1885.—One year ago this spring I had four colonies—two Blacks and two Italians. Increased to eleven, and got 150 pounds of surplus. Have seven colonies this spring all in healthy condition.

R. MCCARTNEY, ROSE HALL, ONT.—My bees are coming out very well this spring. The past has been a hard one on bees around here, some losing their entire stock, others 50 to 90 per cent. I have lost only 11 per cent, and that with diarrhoea. One neighbor lost only three but the average loss here will be 80 per cent.

DAVID KENNEDY, GUELPH, ONT.—I am much pleased with what I have seen of your paper, and think it will be of great service to the beginner, as well as to the more experienced. I want all the numbers from the beginning so that I can have them for reference. I have not had very good success this winter having lost nearly all my colonies. I have purchased a number more to make up my loss. I shall write you more fully again.

C. D. TERWILIGAN, OSHAWA, ONT.—Bees in bad condition owing to the very late spring. We have had snow storms once a week for the past two or three weeks and sometimes two or three in each week. Had about a week of fine weather somewhere between the 15th and 25th of April, just time enough to allow me to give them the necessary attention, which has proved to be only too necessary with us. This warm week induced them to breed rapidly and things seemed prosperous, but other than the warm weather they had nothing to promote it. Since this latter date they have had scarcely a flight and things look dim, I assure you. Still I have lost but one so far and that was a very weak one when it came out of the cellar. Am very glad we have a CANADIAN BEE JOURNAL, but if this weather keeps on I do not think there is much use for it and I should not try to publish it any longer. Should rather hear of "my lost dollar" than be "in blasted hopes."

WM. NIXON, FLORALIA APIARY, GRANBY, P.Q.—I put into my cellar, November 22nd, 169 colonies, and on April 22nd I placed on their summer stands, after a confinement of exactly five months, 158 colonies, all in splendid condition. The day following, it being fine and warm, they began to bring in pollen in right good style, and when they were examined eggs and brood were found in all of them and in some, young hatched bees. The winter losses throughout the eastern townships will be very great as far as I can ascertain, many losing heavily and not a few their all. The past winter with us in Quebec has been one of extreme severity and great length. Last season owing to the failure of the honey crop the bees were light of stores in the fall, consequently those all over the country who failed to feed liberally have heavy losses to mourn over.

SELIM PETTITT, DALRYMPLE, ONT.—I congratulate you in your famous undertaking for the advancement of light and further improvements in the knowledge of Bee-Culture, which is so greatly needed amongst the majority of our Canadian friends. Bee-keeping is but in its infancy yet, in this country at any rate. Thousands and tens of thousands of tons of honey are going to waste annually in our Canadian Dominion just for the want of the little mediums to gather it. A kind Providence has favored us with them both. Why should we neglect to comply with the means Divinely appointed by our Heavenly Benefactor for our pleasure and profit. I think we all as a people are ambitious, and I humbly trust your JOURNAL will prove a success to that effect to all those who are enterprising enough to encourage the JOURNAL and scan its pages from week to week. It is generally conceded that the right man is in the right place, heading the JOURNAL. I like to hear from our bee friends as often as possible, and hope they will be kind enough to give us the opportunity of doing so through this grand little weekly medium.

QUESTIONS & ANSWERS.

DYSENTERY.

J. BEATTY, MONTREAL, QUE.—I had two hives of bees, and about a month ago I examined them to find out if they had honey enough to live upon. I found one—an old hive—had, and the other, which was a rather late swarm of last summer, had not. I gave the latter a four pound square box of honey which they demolished all but about three-fourths of a pound. I examined both hives last week again and found them all dead,

apparently from dysentery. Is this common about this time of year with bees, and is there any way of preventing it in the future?

If you examine the back and future numbers of the CANADIAN BEE JOURNAL you will doubtless find sufficient to enable you to succeed next year without any difficulty. You need not be discouraged, many experts in the business have lost heavily this year.

TRANSFERRING.

W. GARVIN, ASHTON, ONT.—I have twenty-four colonies of bees in old square hives and wish to transfer them into the "Jones' Hive." When is the best time to do it.

You should not transfer your bees before fruit bloom, unless the weather is very favorable. When honey is coming in from fruit bloom they will mend up the combs and fasten them much more rapidly. Great care should be taken not to separate the brood too much but keep it in as compact a form as possible. If bees are transferred when no honey is coming in, great care should be taken that robbing does not occur.

CEDAR FOR HIVES.

AARON APIAN, QUEBEC.—Please state in next issue of JOURNAL, particulars about cedar wood used in hive building. Kind of cedar, whether red, white or what sort? Are wide boards (of ten inches or more) easily procurable? Price per thousand feet? Comparative weight with yellow or other pine.

We manufacture our hives of white cedar, it is about one-half the weight of pine. It is difficult to procure broad boards as there are a great many streaks and openings and dry rot in cedar timber. In this part of the country we cannot get cedar boards wide enough for hives, and have to match. We use these principally in double-walled hives; they are cut thin, narrow and ship-lapped both inside and out. Broad boards, free from rot, knots, and shake are worth \$30 to \$50 per thousand feet.

POLLEN, BEES ON SHARES, ETC.

WM. ASHER, DUNNVILLE, ONT.—In the summer of 1884, towards the last of July, I bought a

swarm of bees, part Italians. Extracted sixty-five pounds of honey and one increase—fall of 1883, 2—2. In 1884 from two I increased to seven; extracted 175 lbs. of honey—fall of 1884 7—6. One died two days before we took them out on the 10th day of April. Looked at them on the 20th inst., one "A" hive did not have a half teacup of bees; another had more bees. Have not fed any this spring. They all have fresh honey and are bringing in a little pollen. All have brood.

Where or from what do they get their honey?

Your bees probably gather their honey from willow, as willow in some localities produces considerable honey. We have several varieties of willow at our different bee-farms. At one there is one species of willow that bloomed after fruit bloom last year.

What became of "A" colony?

We suppose that your bees flew out of the hive and were lost in the repository, otherwise you would have found them on the bottom board, unless they deserted their hive after being set out.

Do bees eat pollen in winter? Mine seemed to have much more last fall than now.

That is a disputed question. It is the opinion of many that bees do not eat pollen as long as they have plenty of good healthy stores. Except the pollen that is in the honey, when honey is sealed over with pollen and the bees consume all the honey in their hive, they appear to suck the honey out of the pollen. In that way they would probably take up an unusual quantity, as where honey is placed over pollen in the cells, or just where the honey comes in contact with the pollen, the latter will be found to be quite soft and saturated with honey on the top.

How far apart should hives be for summer?

It is not important, unless they are placed *too* close together. We usually place the rows from six feet to twelve feet apart, the hives from four feet to eight feet apart in the rows.

I take bees on shares; what share should I get. Who loses by wintering or other losses?

The share you should receive depends very much on the condition of the bees when you get them. If the bees are in old box hives or in log gums you should get a larger share than were they in movable frame hives; if in movable frame hives, one-half the honey should pay you well. Much also depends on the bargain you may make. If you are to receive a share of the honey, you should leave enough in the hives to carry them through the winter; if you are to get half the bees and half the increase for a term of years, the increase should be divided at the end of term.

Please give an essay on queen raising; explain nursery for queens.

We will give you hints on queen rearing in due time. We have some new and valuable points on this subject, which we hope to bring before our readers.

P.S.—Bees wintered outside, packed in chaff, cloth, one thickness rag carpet, six inches chaff on top and four inches on sides in sheltered spot.

HONEY AND HIVES.

HOW SWEETNESS MAY BE MADE, PRESERVED AND SOLD.

North Middlesex Beekeepers' Convention met in the Town Hall, Parkhill, on Friday March 20; D. P. Campbell, president, in the chair; Mr. D. A. Stewart, of Nairn, secretary. The report of the latter upon the membership and finances showed the association to be in a healthy condition.

Election of officers being next in order Mr. Frank Atkinson, of Ailsa Craig, was elected president for the ensuing year; Mr. D. P. Campbell, of Parkhill, vice-president. A. Humphries, of Parkhill, secretary-treasurer; Messrs. D. Norton and J. Allen, directors for Ailsa Craig; Messrs. Henry Phippen and James Gray, directors for Parkhill. Mr. Frank Atkinson made a neat speech thanking the members for the position in which they had placed him. The members were requested to hand in on slips of paper any questions they desired answered.

BALLING AND ROBBING.

Mr. Harrison asked the President how it was that he lost so many bees last year. The President said he lost his bees about May 25 last, through robbing and "balling" the queen. It does not often happen, but when it does it plays havoc with them. It came a very cold spell after the 24th of May, and, rather than starve or see their young starve, they will steal. He lost sixteen out of 24 colonies.

Mr. G. B. Jones, of Brantford, said that two years ago he moved 38 colonies of bees from Berlin to Brantford, kept them well covered and packed and snug, but the ventilation was insufficient. In spring, when mild weather came on, tried the bees, but found them all dead. There was a lack of air space under the combs. Bees that died fell down, filled up the little space there was, and prevented the air from getting to the other bees. He never lost any by balling. The best cure for balling is to put the bees into warm water.

Mr. H. Phippen, of Parkhill, had been very successful, and lost very few. In the spring of 1882 he had eight colonies and in the fall he had twenty. He made long, double box hives, filled in with sawdust, and left an opening in the outside box. He lost two hives only; then bought seventeen more in the spring, and in the fall had 138, and now had 235 altogether.

Mr. J. Aches, of Amiens, said: I have not lost many bees. I have the black bees, and find them a hardy race. I can keep them all right during the winter, but experience some trouble in spring dwindling. I wintered three hundred swarms last year all right. This is a bad winter for bees; only those in the cellar are safe. Winters when the bees can be kept outside are better. Italian bees have more courage than Holy Land bees; they will stick to the hive if there is only one pint of them. I can tell whether honey is going in or coming out of the hive, and govern myself accordingly. I put in 200 colonies in cellar; 100 under bank barn; seem to be in good condition now.

PREPARING FOR MARKET.

Mr. D. A. Jones, of Beeton, was glad to be present, and glad to meet ladies

at this convention, and to know that a lady present had been more successful than many gentlemen. Ladies were better adapted to the business than men, and he would recommend more to go into it. They are more careful in handling, easier and more graceful. Two colored charts were shown by Mr. Jones to the audience, describing the physiology and anatomy of the honey bee, and its relation to flowering plants. He took much pleasure in presenting them to the association. Marketing honey, he said, was a very important matter. A great many people imagine that if they get two hundred pounds of honey it will spoil, and they rush it off to market in an unsaleable way, and in the season of fruits. Guard against such competitions. Never extract honey until it is ripened by the bees unless you have good appliances for ripening it. Put it up in the nicest possible shape. If the weather is wet, clover honey will be thin; keep it until ripe and put it on the market in the most attractive way. Grocers will want it to sell if it is in presentable shape. Thousands of barrels of corn syrup and vile glucose are sold for honey, because it is nicely put up. I know a store in my neighborhood said Mr. Jones, that sold six barrels of glucose for syrup in two months. Glucose is poisonous and we must combat it. We must gain the confidence of the consumers. Label with your own name every package of honey, and that should be a certificate of its purity. Another trouble is the adulteration of honey. Farmers do not consume one twentieth part of our honey. If we raise ten times as much as we do we could sell ten times as much. It is a great mistake to think the honey business is likely to be overdone. There is not enough raised to make it a staple article. Mr. McKnight, of Owen Sound, says he took a green man at the business and started him round the town. He sold 6,000 pounds and could have sold 5,000 more if he had had it. Make your customers at home, they won't leave you. There is no danger of overstocking the market. He related facts showing what great success he had had in the English market. After referring to the superiority of Canada as a honey country, Mr. Jones gave an account of his visit to Palestine, where he found the honey

very dark—in fact, poorer than the worst buckwheat honey here. It was better on the mountains, however.

ANSWERS TO QUESTIONS.

In reply to the question: How can spring dwindling be prevented? Mr. Jones said, if you can winter your bees you can spring them. Bees that are not well wintered are more liable to dwindling. After the bees are out in spring give them space in the hive in proportion to their number. If you have only a few bees you want to contract the size so as to keep up the warmth. No hive can be the right size at all times of the year, no more than you can arrange bedclothing to suit all seasons. Contract and enlarge your hive in proportion to their number. Just as soon as you set out bees in the spring you want to go over every colony, and if one is weak add another weak colony. They will work together all right. This must be done just when you move them. After that you cannot so move them—they will fight. Just as soon as you take them out of winter quarters see that every colony is attended to.

How to kill the Queens—A great many of you handle your hives roughly, give them a kick, let the top fall against the hive. As soon as you stir the hive the queen starts to run, the other bees see her running, get excited and ball the queen. You should not jar the hive. In ten cases out of twelve where the queen is balled she is killed. When the bees are balling the queen the best way is to throw them all into water. The queen will be found on the bottom of the hive. Throw her and other bees into water and they will fight no more.

Q.—How many hives can be kept in a common neighborhood? A.—No definite number can be set.

Q.—What is the best way to secure the best results in comb honey? A.—Strong colonies is the chief thing. If you have not got your hives properly arranged for comb honey you cannot secure good results, no matter what kind of a hive you use. Mr. Jones then took a hive to pieces and explained to his audience how to arrange a hive and how to place sections so the bees will fill out the comb evenly.

Q.—Would you recommend feeding

in spring to stimulate breeding? A.—Certainly, it is money lent at 100 per cent. Make your colonies strong. Keep them booming.

Q.—How many honey bees are there, and which is the most profitable? A.—So many I cannot tell. I have with me samples of about twenty different kinds; and I expect to go to the islands of the Indian Ocean to look for another race very soon. The quietest bees in the world are the Carniolians.

The President here announced a twenty minute intermission to examine appliances on exhibition.

G. B. Jones, of Brantford, was introduced, and answered the following questions: What are the advantages of the shallow frame? My frame is nine inches deep, which is the average height of the brood, so I keep the brood in the bottom and the honey in the second story. I advocate shallow hives. I believe they have many advantages over the deep ones, and are as good as any other for wintering. If you want the frames full of brood keep them close together. If a queen goes up in the second story she will not go down again without some trouble, but she seldom does this, and you may prevent it by putting a perforated metal division between. I find it a great help in spring to have a shallow frame, as the bees are not so much expanded. I use as few frames as possible in the hive, and keep the bees close together, and spread them apart as they multiply and the weather gets warmer. If they fill up one end faster than another reverse the frames. Of course we all agree that the best honey is directly above the brood. I therefore raise one storey of filled sections up and put an empty storey under it or directly over the brood. I cannot control the swarming as well in a two storey hive as I can in a one storey. The shallow frame hives are often objected to for wintering, but I believe them to be better for I put one of these upper stories below the hive, that adds four inches to its depth, and allows plenty of air space and room for any dead bees that may fall in the winter. The entrance to my hive is endways to the frames. The best packing for bees is bees. I don't spread my combs to get the honey in, but leave them so the bees can pass from frame to frame and fill them. I

have used these frames for two years and a half, or three winters counting this. I began spring feeding in February. I fed candy, just laid the sticks on top of the frames. I have 41 in the cellar. In the spring last year those in cellar were the strongest, but those wintered outside worked up quicker. I would not feed syrup until they begin to fly. It makes them want to fly. If robbers get a taste of syrup they will steal it all. My bees are principally Italians.

WINTERING BEES.

Mr. Aches said with regard to feeding bees or wintering, to winter successfully: "Get good strong colonies, full hives of young bees late in the fall. I use a deeper frame than the one just shown. I use a fourteen inch frame instead of nine, and I have been very successful wintering bees. I saved 300 colonies in 1881, when almost everybody in the United States and Canada lost theirs. Last year I had 190 colonies, and I brought them all through; didn't lose one—not even a queen. I winter in a cellar. I let them have a fly sometimes, but do not think it is necessary. Honey is better for being capped over before extracting, but sometimes I get good honey uncapped.

Mr. G. B. Jones said he did not claim that the shallow frame hive is better for wintering, but that he was not afraid of them.

The President (to Mr. Aches)—Do you find an old comb or a new one best for wintering.

Mr. Aches—An old one by all means—the best. I sometimes put corn cobs or old sticks on top of frames to let the bees pass through freely.

D. A. Jones said that raspberry juice was sometimes sealed over instead of honey. Bees will collect it and put it away pure.

In answer to a question Mr. Aches said he kept his cellar ventilated and about 45° of heat.

EVENING SESSION.

The President referred to the advantages of the association to its members, after which D. A. Jones, of Beeton, was called upon, and answered the following questions:

Q.—Is it necessary to have brood in the comb for wintering? A.—It is best to have no brood in the comb when put into winter quarters.

Q.—What is the best preparation for brood in the spring? A.—Put the frames as close together as you can to let the bees in and through. One pint of bees will do more breeding if the frames are so than a quart would do any other way.

Q. What bee is the best to cross with the black? A.—Some say the Italian, but I think a cross between the Holy Land and Carniolians is the best.

Q.—Do you recommend artificial swarming or natural as the best? A.—I think artificial swarming the best if you know how.

Q.—What is the best way to stop robbing? A.—Wet the bees; lay down some straws crossways in front of entrance so the bees can get through them, put some wet grass over them; the bees, in getting through the grass, get wet, and a bee once wet; has all the fight taken out of him. One dry bee will whip one dozen or 100 wet ones. Some put camphor, some coal oil, around the hives to prevent robbing. It is nasty stuff. I prefer the way just explained. Foul brood can be cured now by one hour's work.

Q.—Do you recommend a full rack of foundation in the hive? A.—Yes, if you can afford it. I use but a small piece in each frame.

Q.—What is the best bee pasture in Ontario? A.—I think it is the bass-wood when it is yielding honey, that is wild pasture; but for cultivated pasture the Alsac clover is the best to sow for bee pasture.

Q.—If a queen is chilled will she be fertile after? A.—Yes, even if chilled near to death.

Q.—Is there any danger in moving bees from stand to clamp? A.—Yes. Just move one foot to-day, two to-morrow, four next day, and so on till you get them to where you want them.

Q.—Would you recommend taking colonies out of clamp and put in sawdust hive as soon as warm enough? A.—Yes, until fruit bloom time.

Q.—Is it not injurious to have potatoes and vegetables in the cellar with bees? A.—No; as long as they are not decayed, but it must be dark. It will pay ten times over to put your bees in the cellar for wintering rather than to leave them outside.

(To be Continued next week.)

D. A. JONES.

F. H. MACPHERSON

D. A. JONES & CO.,EDITORS AND PUBLISHERS,
BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, MAY 20TH 1885.

BEESWAX.

Our friends in the United States seem to have lots of wax to offer for sale just now, and as a consequence, the price has dropped considerably.

We notice that Col. R. J. Adams, formerly of Lexington, Ky., but now a large cotton planter and apiarist of Chicot Co., Arkansas, has been adding largely to his stock having purchased 200 colonies of bees from Mr. Opp, of Helena.

WESTERN MAINE BEEKEEPERS.

We have to thank Mr. L. F. Abbott, editor of the Lewiston, (Me.) *Journal*, for a report of proceedings of the Western Maine Beekeepers' Association meeting at Mechanic's Falls on the 5th inst. A report will be published in the C. B. J. next week.

ALL ARE WELCOME.

Friend Pettit writes under date May 9th as follows:—Under the head of Convention Notices in the *JOURNAL* Friend Yoder is giving notice of "The Ontario Elgin Beekeepers Association" but calls it "East Elgin." Not quite so small as that Friend Yoder, it includes the whole county and more too if they like to come.

SUBSCRIPTIONS.

Do you know friends that our success has been greater than we anticipated and the bright and cheery letters we are constantly receiving make us feel a pleasure in doing our utmost to merit the goodwill and approbation of our friends. Every week we are sending out hundreds of sample copies, and we are glad to be able to say that these samples generally bring in the subscriptions.

PRICE LISTS RECEIVED.

We have received the following price lists:—
M. C. KERNS & Co., Pomeroy, Meigs Co., O., eight pages, bees, queens and supplies.
J. H. TILLEY & BROS., Castle Hill, Mo., Simplicity hives, sections, etc., thirteen pages.
T. PIERCE, Gansevoort, N. Y., four pages, Langstroth hives, smokers, etc.
T. S. HALL, KIRBY'S CREEK, ALA., twenty-two pages, bees, queens, etc.

CONVENTION NOTICES.

IN THIS DIRECTORY we will keep continually standing the names, dates, and places of meetings and conventions throughout the year, together with the name of the Secretary of each Association. Secretaries will please keep us posted as to the dates set for their Conventions, that this directory may always be kept complete.

ONTARIO BEE-KEEPERS' ASSOCIATION, at Toronto, during the Industrial Exhibition, between September 10 and 20, 1885. Exact dates will be given hereafter. Jacob Spence, Sec., Toronto, Ont.

HALDIMAND BEE-KEEPERS' ASSOCIATION will meet at Nelles' Corner, May 29th 1885. E. C. Campbell, Secy., Cayuga.

THE WILLIAMITE VALLEY BEEKEEPERS' ASSOCIATION will hold its second annual meeting in the Court House, Lafayette, Oregon, June 16th, 1885. Frank S. Harding, President; E. J. Hadley, Secretary.

MICHIGAN STATE CONVENTION, at Detroit, Mich., on December 8th, 9th, and 10th, 1885. H. D. Cutting, Sec., Clinton, Mich.

LISTOWEL BEE KEEPER'S ASSOCIATION, at Queen's Hotel, Listowel, Ont., May 29th, 1885. Geo. Brown, Sec.-Treas., Molesworth, Ont.

EAST ELGIN BEE-KEEPER'S ASSOCIATION, at St. Thomas, at the Hutchison House, on the first Saturday in June—6th—at one o'clock. John Yoder, Sec., Springfield P. O.

NORTHERN MICH BEE-KEEPERS SOCIETY will hold its 2nd Annual Pic-Nic at the apiary of F. A. Palmer, 1 mile west of McBride, on May 28th. Teams will be in waiting at the depot in the morning to convey passengers to the grounds and will also return them in time for the trains homeward.

PRICES CURRENT.

BEESWAX.

Beeton, May 20th, 1885.
We pay 40c. in cash or 42c. in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 25 per cent on Wax coming into Canada.

FOUNDATION.

Brood Foundation, cut to "Jones" size" per pound...	55c.
" " " " to other sizes " " " "	56c.
Section " " in sheets per pound.....	70c.
Section Foundation cut to fit 3 $\frac{1}{2}$ x $\frac{1}{2}$ and 4 $\frac{1}{2}$ x $\frac{1}{2}$, per lb...	75c.
Brood Foundation, starters, being wide enough for Frames, but only three to ten inches deep.....	53c.

ADVERTISEMENTS.

QUEBEC.—Send postal for my large circular and price list of Italian Bees and Queens, Section-Boxes, Comb Foundation, etc. F. W. JONES, Bedford, Pro. Que.

80 COLONIES BEES FOR SALE
ITALIANS AND HYBRID, (Heddon) All strong and healthy, in Richardson hive, (the best hive for comb honey). \$8.00 per colony will buy this choice apiary. Not necessarily all cash down. A rare chance. Address April 120, '85. 5-8 **Elias Mott, Norwich, Ont.**

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Will fit any frame, is simple and cheap; any one can make it. No nails or screws required to fasten it to the frame. Send ten cents for photograph with instructions, or 25 cents for a model. Friend Root turned this down as "too much machinery; but quite ingenious." You will smile.

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- CHAS. HERTEL, Jr., Freeburg, Ill.
- E. L. ARMSTRONG, Jerseyville, Ill.
- ARTHUR TODD, Germantown, Philadelphia Pa.
- E. KRETCHMER, Coburg, Iowa.
- E. F. SMITH, Smyrna, N. Y.
- C. F. DALE, Mortonville, Ky.
- EZRA BAER, Dixon, Lee Co., Ill.
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Eggs for Hatching.—White Leghorn, one dollar or thirteen.
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Per 1,000.....	\$ 6 00
" 5,000.....	27 50
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Italian Bees Queens, and Honey.

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Strawberry Plants, Wilson's Albany, 40 cents per dozen.
1-6m
Red Phlox, Raspberry, \$1.00 per dozen.



Italian Queen, Tested, \$2 to \$4; Untested, \$1.50 to \$2.00.
Plan, Root's Improved Cell, sheets 12 in. wide, yellow, cut to order.

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TINNED WIRE.

We have just bought a large lot of Tinned Wire, No. 30, which seems to be the number best suited for wiring frames and we are able to sell it very low:

Spools holding one pound, each.....	30c
" " one-half pound, each.....	18c
" " one ounce, each.....	07c
Reels, of from three to five pounds, per lb.	25c

The spooled wire is much more convenient than the reels as there is no danger of tangling. These price will supersede those in our price list.

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Beeton, Ont.

IMPORTED QUEENS BY MAIL

—DIRECT—
FROM ASIA AND FROM EUROPE.

Cyprians, Syrians Carniolans, Italians
AND PALESTINES,

ALL REARED IN THEIR NATIVE LANDS.

Imported Cyprians and Imported Syrians.

Grades and Prices of Queens:	before	July		After
	June 1	June	Aug	Sept. 1st.
Finest Selected Queens, each	\$12.00	10.00	9.00	\$8.00
Fine Prolific Queens, each	10.00	9.00	8.00	7.00
Smaller & darker Queens each	8.00	6.00	5.00	4.00

Owning an apiary in Cyprus and another in Syria, I have facilities equalled by no other person for obtaining choice queens of these races. I shall visit these apiaries during the coming winter and return in early spring bringing with me a fine lot of queens. Those who desire Imported Cyprians, or Imported Syrians VERY EARLY can have them mailed direct from Cyprus or from Syria to their addresses during March, and on all queens so sent I will assume three-fourths of the risks, that is, will replace at one-fourth the regular price any that die in transit, provided the purchaser receives mail from New York City within five days time.

Imported Carniolans and Imported Italians.

Grades and Prices of Queens:	before	July		After
	June 1	June	Aug	Sept. 1st.
Finest Selected Queens, each	\$7.00	\$6.00	5.00	\$4.50
Fine Prolific Queens, each	6.00	5.00	4.50	4.00

I have several times visited both Carniola and Italy, inspecting at each visit a large number of apiaries, and also have, for several years, kept side by side imported stocks of both of these races, and I unhesitatingly give the preference to the Carniolans. They are the gentlest bees known, equal the Italians in honey-gathering qualities and in point of beauty, and far excel them in prolificness and hardihood.

Cyprians and Syrians Fertilized in Carniola.

Prices two thirds those of Imported Cyprians and Imported Syrians.

All these queens are selected daughters of fine imported stocks, are reared in full colonies, and are fertilized in Carniola itself, where of course ONLY Carniolan bees exist. From these crosses bee-keepers may expect the best results which can be obtained through crossing any two distinct races.

Imported Palestine Queens.

(ISO-CALLED "HOLY LANDS.")

Prices three-fourths those of Imported Cyprians and Imported Syrians.

Though Palestine bees possess some valuable qualities common to Cyprians and Syrians, still, on account of their very bad temper and poor wintering qualities I cannot recommend them for general introduction. To fanciers, however, who desire them, I will say I can furnish as fine imported queens as are to be had in Palestine.

During five years experience in bee-culture in the Orient, three of which were passed there, I have neither seen any foul brood or sign of foul-brood, nor have I ever heard of its existence there. None exists in this portion of Germany, and having examined the apiaries from which my Carniolans and Italians come, I can also testify as to their healthful condition.

Queens sent Post-paid Arrival with Safety Guaranteed.

Any Six Queens 5 per cent. discount; Ten Queens, 10 per cent. Twenty Queens, 12 per cent; Forty Queens, 15 per cent.

Remittances by international postal-order, bank draft, or by Canadian or U. S. bills in registered letter. Drafts on banks outside of Munich, 25 cts. additional for collection

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"The Bavarian Apiary,"
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Ten Per Cent. Reduction.

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E. L. Westcott, Fair Haven, Vt.
April 5th, 1885.

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W. T. Falconer, Jamaica, N.Y.

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As I have always on hand a large stock of
APIARIAN SUPPLIES,

Bees very cheap by the lb., and Foundation, at very low prices, it will be to your advantage to send a post card for my Price List before purchasing elsewhere.
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Horning's Mills, Ont.

1-3m.

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