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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

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BRANTFORD, ONT., JULY, 1896.

WHOLE
No. 377

The Mighty Dollar.

It would please us much to receive by early mail many of the numerous dollars due us by absent-minded subscribers.

We give, in the space below, the number of the journal when your subscription expires. If it is No. 378 (for Aug.) or below that number, we are entitled to a remittance; if it above No. 378, you need not pay any attention to this gentle reminder.

Your subscription expires with

No. 373

We trust every subscriber in arrears will find what is due by return mail, before it is possible to forget it again.

GOULD, SHAPLEY & MUIR Co., Ltd.
Brantford, Can.

for the produce of wax which is to be sold to the Chinese."

Mr. J. E. Crane in commenting on the the above in the Review, says: "I should not have thought so much of this statement had I not in conversation with a returned missionary learned of the same, or a similar bee, under domestication by the Chinese in Western China. As he was a young man, a native of this town, brought up on a farm, I feel that his statements were worthy of entire confidence. He said that the bees of Western China were in size midway between our hive bees and the humble bee, and were like our domestic bees, kept in hives; and must be of gentler disposition, as he had seen a colony clustered in a crowded street, yet no one seemed afraid of them."

The above may be of great importance to bee-keepers. The matter of experimenting with these bees is almost beyond private enterprise, but some government should take hold of the matter.

* * *

We do not hesitate to say that there is not one leading comb honey producer who will agree with Mr.

Mr. Pringle on Pringle when he says
Comb Honey. in his paper "Some

Mistakes in Bee-Keeping and Bee Journals": "In producing honey in sections, that it is a mistake to use full sheets of foundation; again that it is a mistake to use single slotted sections." We do not think that Mr. Pringle has ever claimed to produce much choice comb honey and we venture to say that if Mr. Pringle

In Belgium they have a law prohibiting the sale of any kind of adulterated honey.

* * *

An old volume of the American Bee Journal has the following:—

The apicultural section of the Entomological Society at its annual meeting in Paris, August, 1874, made many interesting statements. M. Durand Saint Armand, Government officer in Cochin, China, says that the country possesses a bee of the size of ours, which consequently, is not to have a proboscis long enough to extract the honey from red clover, which is known to be very abundant. This bee is found in great numbers all along the coast, and in the wild state, in hollow trees, and the bees hunt them for their wax. The extensive forests of this country are leased

were making a specialty of the production of No. 1 comb honey he would use full sheets of foundation and single slotted sections. Comb foundation is made which when built into comb is quite as acceptable to a discriminating consumer. If the statement were made that a large proportion of foundation used in sections is too heavy we would have to admit the correctness of the statement. There are several reasons for this. Many know better, some are careless and have not the proper foundation on hand, some think because the light foundation costs more, it is economy to use the heavier forgetting that the difference in price is more than made up in the extra number of feet to the pound in the lighter. Some get their comb foundation from men who have only a brood mill and cannot make the lighter foundation, or they have not the experience necessary to make a thin based light section foundation. In discussing this question, however, we have a right to take as a basis not what is used, but what can be used. If there is any difference of opinion upon this question these columns are open to discuss the question in a quiet and kindly spirit.

* * *

European bee-keepers in some cases attach a good deal of importance to the properties of formic acid in the cure of foul brood. In one instance it was recommended to close the entrance and open a fly hole in the top of the hive, the formic acid generated by the bees is by this method confined more to the hive and it is argued works a cure. In the Suris Bee Gazette it is recommended to put formic acid into the hive to work a cure. It arrests fermentation. Is it possible that there is still much to learn about foul brood?

* * *

L. A. Aspinwall in the Bee-Keepers Review, writes. "The construction of frames bears directly upon the subject of wintering, particularly in regard to maintaining the requisite degree of warmth.

Closed end frames conserve the warmth of the colony in each range to a greater degree than those with open ends. They are in accordance with nature." The above is sound and is a strong argument in favor of the Hoffman, or any other close end frame.

* * *

In the Stratford Beacon of June 18th, may be found a long and well written account of the visit of The Stratford representative of that Beacon. paper to the apiary of Mr. F. A. Gemmell.

We congratulate The Beacon upon its enterprise. Much good can be done to bee-keeping and the country by such work and we trust the time is coming when such recognition will be the rule not the exception.

* * *

The question of overstocking is one but little understood. When you allow a man to say what he thinks, he may be able to say much. When it comes down to what he knows about it he can say but little. In the meantime it is well to be on the safe side, and avoid having large apiaries close neighbors. There is plenty of room in the country.

* * *

It is always a difficult matter to give an accurate idea of how bees have wintered and how the honey flow The Season, is over a large tract of country. The honey flow last summer was decidedly poor over that part of Ontario, west of Trenton. In some districts the fall flow was good, but there was little swarming and many old queens went into winter quarters. Again many colonies went into winter quarters with insufficient stores, and a rather high percentage perished on that account. In eastern Ontario and other provinces the mortality has been about as usual. Spring in Ontario opened well in this respect, neither too cold for bees to fly nor too warm. The bees built up rapidly, vegetation well advanced and swarming early. Honey in most localities has come in well, but the swarming owing to old queens, days that the

loaded in the hives and other causes has been excessive. The prospects at this date of writing (June 24th) are excellent for a fair demand for new honey and at prices fully up to the price of two years ago. Our best swarms have since June 10th and 12th finished up two crates of comb honey. Linden will likely be open.

* * *

Elsewhere will be found a copy of the Toronto Industrial Exhibition prize list.

We are pleased to Toronto notice that Mr. R. H. Exhibition. Smith. has succeeded under somewhat disadvantageous circumstances in keeping the premiums up to that of last year, when the North American Bee-Keepers' Association met in Toronto. No doubt the honey exhibit attracts a great deal of attention and the Directorate have made no mistake in coming to this conclusion. We trust that bee-keepers will make a large and attractive display at Toronto and other places. A good honey exhibit and a good attendance at the Exhibitions helps to sell honey.

Toronto Industrial Prize List.

In the December number of your journal, Mr. Deadman severely criticises the prize list of the Toronto Industrial. As I have been an exhibitor for the past eight years, I can claim to know what sort of satisfaction it has given to exhibitors and visitors. I believe Mr. McKnight was the prime mover to change the prize list to its present form, with the exception of the word largest, in Section 15, (that has been added by the other directors), and for a number of years has filled the bill. Never till last year was there such a difference of opinion as to the meaning of the wording of the different sections.

The Toronto Industrial prize list cannot be looked upon in the same way as a township or county show list, where the apian Department would be comprised of a few entries and small quantities, and would attract as little notice. Some years ago there was a class of entries that called for quantities of ten pounds, but it failed to bring out the smaller bee-keepers. But when the prizes were made larger for a larger quantity, it became a success in the way it was intended—as an educator.

While I do not think the prize list cannot be improved, I would certainly not make such drastic changes as Mr. Deadman suggests, and make such a mistake as to give a six dollar prize for half a gallon of honey vinegar, and only fifteen dollars for 500 lbs. of comb honey.

I agree with Mr. Deadman, that Sections 11 and 14 may be left out to advantage, and that the word display, in the different sections, be left out, and quality only considered every time. And in Section 15, for the most tasty exhibit, etc., let display alone be considered, and not the greatest quantity, but only the quantities called for in the preceding sections.

The only other changes I would suggest are that the medals in Section 11 be given for inventions, in addition to a money prize, and the 100 lb. lots of granulated and liquid be made equal, that is, 1st \$3.00, 2nd \$5.00, 3rd \$3.00, 4th \$2.00. Honey vinegar should be added in proportion to its value, say 1st \$3.00, 2nd \$2.00, 3rd \$1.00; and that prizes be offered for 20 lb. lots of Clover and Linden. I think 20 lbs. little enough for any entry, and it would be a mistake to reduce the prizes on the larger quantities. Any producer who has taken 500 lbs. of comb honey to Toronto, has never considered the prize too large, when he takes into account the care needed for the production and carriage, and the risk that he may not take a prize at all. And in wax, the manufacturers of foundation be not excluded.

Mr. Deadman thinks the prize list a disgrace and does not encourage apianists. I know it has encouraged me, for I certainly would not have gone to so much trouble to exhibit, if the prizes had not been liberal.

A superintendent should be attached to the department. We always had one until last year. But a superintendent cannot insure the safety of exhibits when the crowd is there, unless he has glass cases, to lock up exhibits, the same as in the Dairy Department.

With regard to locating of exhibitors, I think Mr. Hill has done the best he could under the circumstances, and he has always allotted space. I know I did not always get the position I would have liked, but I have felt that perhaps, one year with another, I was as well treated as the rest of the exhibitors.

The greatest advantage the oldest exhibitors have is *experience*, and that is often dearly bought.

If the Directors could be prevailed upon to carry out Mr. Deadman's suggestions on page 447, I am sure it would very much add to the value of the exhibition in all its departments.

R. H. SMITH.

St. Thomas, Ont.

[Mr. Smith's article came just in time to secure insertion in the present number of *The CANADIAN BEE JOURNAL*. We think there is no one in the bee department who has been at the Toronto Industrial Exhibition for as many years, with a honey exhibit, as we have, and no one who has had more at stake, or gone to greater expense. That there has been a great diversity of opinions, more or less diverging, in regard to the interpretation of the prize list, is certain. We do not think it well to go as far as Mr. Deadman outlines in his article in the December number, and if his article is understood, we do not think he asks it; but the article is likely to bring good results. We have lately been called upon to justify the Ontario Bee-Keepers giving \$25.00 as prize money to the Toronto Exhibition, and we were able to do so on the ground that it was given for the largest, neatest and most attractive exhibit, and therefore drew attention to the exhibit of honey and the bee-keeping industry. It is very much to be desired that there should be a large display of honey put up in an attractive manner. Such demands the presence of the exhibitor in person, and therefore a considerable outlay of time and expense, and a good deal of risk run. For this there must be a considerable hope of reward. We do not think it fair to decide upon the space for each exhibitor by lot. Last year we were all in a new building, and the ones who had exhibited the longest got first choice, but otherwise choice is given in rotation, and no one has any material advantage. What we mean is that if we were in the same building next year, those who were away from the doors would next year have spaces next the doors. By lot, a man might have the best or the worst space for years running. In the largest and best variety of domestic uses to which honey may be put, etc. Here is a section which requires solid good sense and experience in the judges. It is not fair to count the greatest number, neither does the list read thus; it also says *best*. Neither is it fair that honey alone should be used. The bulk of honey used in foods to-day is

used by bakers, tobaccoists, vinegar manufacturers and meat curers. To use honey alone would debar most cakes, whilst a little honey adds much to the virtues of the cake—if cake has any virtues. The intention is to educate the people to the use of honey; the idea is not that honey shall be cheaper, but that, properly used, it is better.

We intend, as a member of the Board of the Toronto Industrial Exhibition, to recommend a change. Probably, the ten best varieties of domestic uses to which honey may be put, etc., etc. This would probably cover the ground better for the present. Putting stress on varieties, brought out all the possible uses, and had its educational value for the time being. Where quality and display are to be considered, there should be a distinct understanding as to what per centage each shall count. To change the quality of honey in the various exhibits would be one of the best ways of changing the present designs and the monotony of exhibit which has been the rule from year to year. The award on 500 lbs. of comb honey should not be decreased we think. There should be an award on comb and extracted honey, quality alone considered. We have claimed this for years. We think the awards on assortment of glass, etc., would be better given for something else; there is no value in this award. We think the silver and bronze medal, to the exhibitor taking the largest number of first prizes for honey, could be used to better advantage; it is to a certain extent a repetition; but this will require careful consideration. It is our intention to urge that an award be given to beekeepers upon an exhibit which has never yet been made at Toronto, and which will create an interest in honey and bees which has never been before, and which is likely to give us a crowd of interested visitors of the best class.

In the matter of prize money, Toronto has allowed Detroit to give a better prize list. The total list should be increased at least \$150.00, and the privilege, under certain restrictions, granted of cutting comb honey, for samples. We think this will be granted.—[Ed]

[Later. The above was written just a year ago, but reached us too late to answer the purpose last year. Since that many changes have been made. The article will however be of use.]

The Difficulty of a Beginner.

I wrote you a few days ago, telling you that from being utterly unable to get all the brood combs replaced in the B chamber, on account of their being built out so thick, I placed the extra one with all the bees adhering in the new hive. I kept it warmly wrapped up at night, and, the days being very warm, I thought some of the brood might hatch out, but the bees kept gradually leaving it and returning to their old hive; so yesterday morning (the third day) some of the bees seemed loath to give it up, and on examining it closely I found it so full of young brood in all stages of growth, that I was loath to lose them if they could be saved. So I took two more combs out of the old hive and placed one on each side of it. Of course they were covered with bees. Replaced them by sheets of foundation, exchanged the position of hives and covered them up; (of course being very careful that the queen was not on the combs we moved). They seemed all right and were working later on in the day, but of course one hive is queenless.

I received the journals last night, and read about foul brood arising from dead larva, and I feel uneasy lest some of the larva in that first comb should be dead. Now gentlemen I would like you to criticise or advise me through your journal. Have I done right, or should I have let the comb go, and not risked separating bees? If I have done right or i. I haven't, and you think it advisable, I wish you would send me a tested queen by mail, as it would save the time they would require in raising one. I wish it could get here by noon mail on Saturday, which would prevent it laying over Sunday. We are ten miles from the Sound, but have opportunities almost every day to send down with some one. We have a weekly Tuesday mail right to our door, from —, and if you can be sure that the queen gets to — on Monday, so that she can come up with the Tuesday mail, you could address her here, but if you missed Tuesday's mail, she would lay over for a whole week; but I could surely, by sending an order to the postmaster, get her from the office. If I knew just when to go to the Sound for her, I would be all right, but it is so far away that it is very incon- venient. If it gets to the Sound in time to catch Tuesday's mail, all right for this post week, but if you are not sure, perhaps it would be better to send to the Sound. I am

a woman, and my husband has shares in a mill and several farms, and is too busy to undertake any responsibility about the bees, so you see, with my two little girls and my domestic duties, I have little or no spare time at my disposal; but I am going to keep more bees and less cows, and if I can winter these safely, I will get one or perhaps two colonies more next spring. I would like if you would send me samples of your new-process foundation, and anything else that would help an amateur bee-keeper. If these bees swarm this summer, I will need more supplies.

In the hive you sent me, one of the brood combs is broken off at one end, and has to be held up by a small block of wood, and two others rest flat on bottom of hive. Now don't I run a great risk of killing bees or even the queen, in putting them in B frames. I have looked them over four or five times, and yesterday I did not see the queen at all. Nothing could happen her unless with said frames. I remember she was on the bottom of comb the last time I saw her, and I did not notice until yesterday that the combs sat on the bottom; but of course she might have been there and me not see her. On some of the combs the bees were piled two and three deep.

I hope I have made it plain about the queen. There are five heavy brood combs almost full of brood, and three frames with foundation, with queen on one hive. There are three heavy brood combs, with adhering bees, and five frames of foundation in another, queenless. There seems to be a wonderful lot of bees in both hives.

I have read the two journals almost from cover to cover, and feel sure that they will be an incalculable help to me.

Yours sincerely,

Mrs. GEO. SIRR,

Parry Sound District,
Ont.

[We wrote you some days ago that you should have been able to get the combs back where they came from. Crowd the combs in the hive together a little and put the least bulging comb into the hive last. However, as the colony is very strong, there is no great objection to dividing the swarm. If you have only one and wish to increase, this will overcome any possibility of losing a swarm. In dividing we should leave the least brood, say 2 out of 8 combs, in the hive, on the old stand; also put the queen there, and shake over half the bees there. The balance of bees and combs we

would put on a new stand, filling both hives with frames and foundation.

The new queen has been sent to you, and upon receipt you had better shake the bees from the combs and examine them carefully, breaking down any queen cells on the way. Then introduce the queen as per printed directions on the cage cover. Also break down any queen cells which may be on the combs, in the hive with queen, there may have been built for swarming; if this is not done, this hive may swarm and the young queen remain in the old hive.—Ed.]

I see you have changed the style of the slot; why is this? I have often thought that on the style, shape, or size of the slot there depends a good deal in the comfort of the bee in working, and I can't avoid so far in coming to the conclusion after eight years observation that a better and more uniform deposit of honey could be produced by having a more respectful regard to the bee's comfort in working. I would suggest that the slots should therefore be so narrow that when two sections are placed together the space should be the same as the perforated metal i. e. 1/6 in. Please note these remarks and reply at your convenience.

The clover honey so far this season in this locality is none, for which I can only account by unusually low temperature and the succeeding drouth,

M. LEPPER.

It has been thoroughly demonstrated that owing to swelling and shrinkage, and for other causes it is a difficult matter if not impossible to cut wood so it will exclude the queen and admit the worker bees. Aside from the impracticability of doing this with section, there would be a tendency to keep the bees out of the sections, and last but not least, there is no necessity for such an arrangement, and there is rarely any necessity for a queen excluder when running for comb honey, as the queen very rarely deposits eggs in the sections. The only time we put a queen excluder between the section super and the brood chamber is when we have the swarm on starters only and put a section super on with partially drawn out comb or even full sheets of foundation in the sections.—Ed.

Haldimand Bee-Keepers' Association.

The above met at Nelles' Corners, Saturday, May 29th. the president, Mr. James Armstrong. Cheapside, in the chair. Among those present were James Armstrong, E. C. Campbell, Robert Coverdale, Wm. Kindree, Alex Stewart, Isaac G. Wismer, Wm. Atkinson, C. Best.

In reporting the winter losses, the president reported 60 last fall, 55 in the spring. He stated he thought three had been packed too warm; the other two were queenless. He packed in the following manner: The clamp holds 16 colonies, 8 on each side; they fly out on each side; 3 in. apart in clamp; 1 in. of packing between: backs to backs; 4 in. front and 10 in. on top. He uses sawdust for packing bees. Has used clover chaff, but did not like that as well. Will reduce sawdust packing on top to 2½ in.; entrance 6 in. by 3 in. For his Heddon hives, 3 in. all round, 5 in. on top, and about 4 in. on bottom. He used to use new cloths, but now uses the old proplized.

Mr. Kindree . . .	40	winter,	84	spring.
Wm. Atkinson, 22	"	16	"	"
R't. Coverdale, 35	"	24	"	"
Alex Stewart . .	5	"	5	"
I. G. Wismer . .	52	"	51	"
C. Best	14	"	13	"
Isaac Overhill, 22	"	21	"	"
Dav. High	10	"	7	"
Jas. Jack	33	"	27	"

Mr. Coverdale had fed cheap brown sugar to one in the fall; it was dead in the spring.

Mr. Stewart wintered outside; 3 to 3½ in. packing all around.

Mr. Wismer had first swarm on 8th May.

Mr. Best had one swarm starve.

Mr. Atkinson packed some bees in clamps some with wire cloth and queen excluder over frames, others with wood cover. He had from 1 ft. to 2 ft. leaves on top. These with wood cover on top wintered best.

The president followed with a paper on the production of comb honey, which will be given in another place.

In the discussion which followed, Mr. Armstrong was asked,—

Do you use full sheets of foundation? He said, I use full sheets right through.

Do you use a bait section in first sugar? Yes, to get them to go up.

A discussion took place on packing for not, for spring protection. No definite reply could be given.

Do you use separators? I use separators if I want a first-class article.

QUESTION DRAWER.

Should we use painted or unpainted hives?

Most thought painted, by all means. Some, however, thought that, although unsightly, the unpainted hive allowed better escape of moisture.

Mr. Holtermann spoke highly, as far as he knew, of the Heddon hive as a wintering hive.

Messrs. Armstrong and Atkinson did not want the Heddon hive. There were many objections. They had used them for years.

Several members condemned using many sizes of frames in one apiary.

Is it advisable to cut out drone comb in the spring? Yes, it is, if you put in worker.

Is drone comb in the super as good as worker? Not unless there is plenty of drone comb below. The bees may leave drone comb empty in the super, excepting the queen, to deposit eggs there.

Mr. Armstrong related how his uncle had a lot of box hives, and those shaded did not swarm nearly so much as those not shaded. The evidence he gave appeared to be very conclusive.

The delegates at the Ontario Bee-Keepers' Association were then asked to report.

Mr. Armstrong, in his report, said that some very valuable discussions had taken place at the meeting at Brantford, but there had been too much wrangling. He did not say so because the gentleman happened to be present. He did not think Mr. Holtermann was to blame for this, but others were. He hoped to see the Ontario Association still more useful in the future, and that personal matters would drop out of the discussions, and harmony prevail.

Mr. Best, Balmoral, the second delegate to the convention, stated that he had enjoyed and profited much by the meeting, but there was a personal feeling shown by some in convention which was very undesirable, and was injuring the association. He thought Mr. Holtermann had acted all right and was in no way to blame. Mr. McKnight, of Owen Sound, was an able man, and could be a useful member. He had given a very able address during the open evening meeting, and with the exception of that about everything he did was wrong. He hoped a better spirit would prevail in future. A great deal of time had been wasted in this way. Mr. Best praised very highly the action of Mr. W. J. Brown, Chard, in bringing a sample of adulterated honey before the association, and hoped

such exposure would have beneficial results.

Mr. Stewart asked if anything further had been done to open up the British market for honey.

Mr. Holtermann said that this was an important subject. The subject of preferential trade between Great Britain and her colonies appeared to begin to assume something like practical shape. In an essay, which had received high praise, the agricultural products were mentioned which it would be desirable to include in the arrangement. Honey had not been mentioned. Bee-keepers in Canada would benefit by an arrangement along the above lines, and he thought it would be well to act in this matter as soon as possible. Preferential trade was not a party question, He thought, by a gradually increased tax for agricultural products not produced in British colonies, those wishing to supply Great Britain would have an advantage by settling in British territory. He did not look for a great increase in price by such an arrangement, but benefits would be derived by increased population.

It was then moved by Wm. Atkinson, Cheapside, seconded by Isaac G. Wismer, South Cayuga, that the members of the Haldimand Bee-Keepers' Association would like to see the development of the European and particularly the British market for honey; and that in case any steps should be taken in the direction of preferential trade with Great Britain, honey be one of the articles to come under that head. And that a copy of this resolution be sent to the Minister of Agriculture and the Minister of Trade and Commerce at Ottawa. Carried.

The Halton District Bee-Keepers' Association.

MILTON, May 20th, 1893.

The Halton district bee-keepers met at the Bennett House, Milton, on May 20th, the president, A. Pickett, in the chair. Reports from members show a considerable loss the past winter, mostly from cellar wintering; also the bees wintered outside are in better condition. Prospects for a honey crop from clover are not very good; from basswood better. The members spent a very enjoyable time discussing quite a number of questions, and were satisfied that much benefit could be had from such meetings.

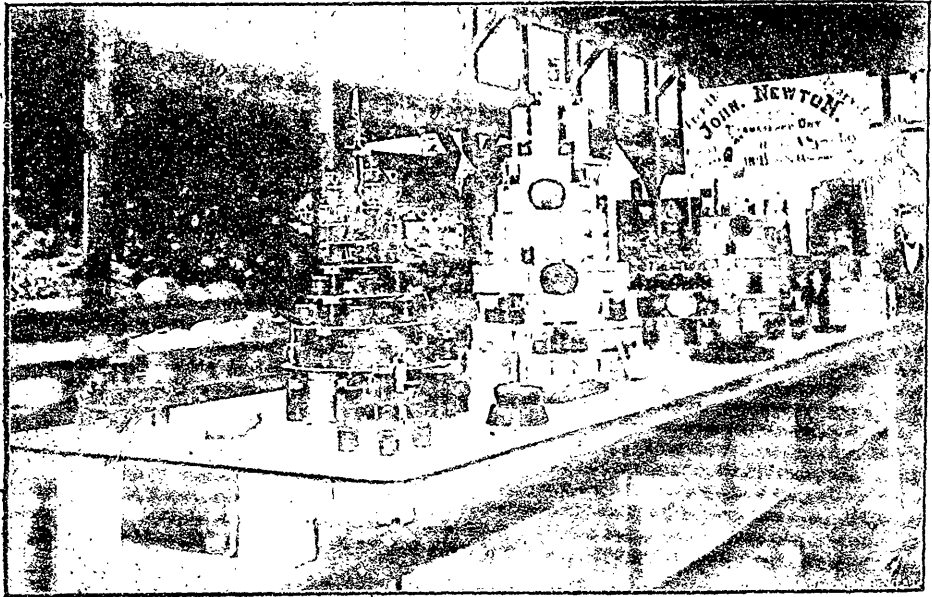
G. E. SAUNDERS, Sec'y,
Agerton, Ont.

How I Fixed my Bees for Cellar Wintering.

—G. M. DOOLITTLE.

Having my bees in the cellar fixed to suit me, I thought perhaps the readers of the Canadian Bee Journal might like to know something about how they were fixed. The doors of the bee cellar were left open for two weeks before I set the bees in, so as to cool the cellar off as much as possible. For, as a usual thing, the temperature is too high if I do not do this. A day was chosen for setting in, which was mild and a little above the freezing point, so that the hives

rope, placed under the hive, of the right length so the hive is lifted a few inches above the ground, each taking hold of the rope with one hand, the hives are easily transported without jar or fatigue and placed in the cellar where wished. The other plan is to take a spring wheel barrow and place one or two horse blankets on the same, so folded that three or four thicknesses will be between the hives and the bottom and front boards of the barrow. I now go to a hive and carefully lift it from its bottom board and set it on the blanket. The hive is now wheeled into the bee cellar, planks being put down over the door sills or any uneven places, when the hive is set in the place it is to occupy all winter. This plan works pretty well, and is the best of any I know of where only one person



HONEY EXHIBIT AT WESTERN FAIR, LONDON, BY JOHN NEWTON, THAMESFORD, ONT

would come off the bottom boards without snapping, as they always will when they are frozen fast to the hives, which snapping irritates and arouses the bees if allowed. Where no jarring or snapping occurs they can be set in the cellar so as to hardly know that they have been moved. I also find that bees are less easily disturbed when the weather is a little above the freezing point than they are when colder. I employ two plans for conveying the bees to the cellar, the first of which is to have a man help me, when he can be secured handily. With a

can work at setting the bees in, but it is not as easy, and disturbs the bees rather more than the first. Before setting the first hive in I place a bottom board on the ground so as to raise the first hive a little off the cellar bottom on account of dampness, as the air is not quite as good at the bottom of the cellar as it is a little distance from it. On this bottom board was placed two sticks of two by two inch stuff, as long as the hives are wide, and on these sticks the hive is placed. This raises the hive up from the bottom two inches, and as it is

left open on two sides the air is allowed to circulate freely all under the hives, thus keeping everything sweet and free from mould. Before setting the bees in the cellar I made a sawdust cushion for each as follows: From pieces of half inch stuff I make a rim the same size as the outside of the hive and three inches deep, to one side or the bottom of this rim I tacked a sheet of cotton cloth, which cost only five cents per yard. To hold the cloth securely to the frame a strip of the same was torn off and folded so as to be three double, this being placed on top of the sheet along the edge so as to clamp the sheet between it and the frame when the nails were driven. After nailing on the first sheet the rim is turned over and filled with fine dry basswood sawdust which was saved when sawing sections last winter, the sawdust being well packed down. I prefer this basswood sawdust to anything else, where it can be obtained, as it will take up about its bulk in water, should there be much dampness in the bee cellar, while at the same time the bees and combs are kept dry and nice. If such sawdust cannot be obtained, timothy and clover chaff is good. After filling with sawdust nail on another sheet, the same as the first when the cushion is made. As soon as the hive is in place in the cellar, for these cushions can be placed on the hives any time during the fall, I put on this cushion, and on top of the same I place two to four thicknesses of old newspapers, upon which is placed two sticks the same as those placed on the bottom board, as spoken of above. The next hive is placed on top of these sticks, and so on till the top of the cellar is reached. These newspapers serve two purposes: first to keep the dead bees and droppings from the hive above from soiling the cushion, and to keep the bees in the hive below warm and of a more even temperature, as all know that air circulates very slowly through paper of any kind. I find that in this way the moisture from the bees is allowed to pass off in such a way that the bees are kept dry and nice, and that these cushions are fully as much toward advantageous cellar wintering as they are for wintering on the summer stands. As it takes only one yard of this five cent cloth for one of my hives the expense is very little, while the cushion will last for a lifetime if properly cared for. The cellar is high enough to pile four hives on top of each other, and wide enough to place three tiers side by side, but I set only one tier on each side so as to leave an alleyway so I can inspect them at any time I wish, for I always go into the cellar twice each month to see that all is right as to temperature, mice, etc. Having the bees

all in the cellar is closed. At the end of two weeks I go in the cellar taking in with me a bag of the same sawdust used in making the cushions, and scatter it evenly and thinly over the cellar bottom so as to take up all dampness accumulating there, and keep whatever bees which go out of the hives and die of old age on the bottom of the cellar, from decomposing and moulding there, thus causing an offensive smell and sour or foul air for the bees. Every two weeks I put in a little sawdust in this way, and since fixing and treating my bees as above given my loss has been but very little.

Borodino, N. Y.

Mr. John Newton, Thamesford.

In the present number of The Canadian Bee Journal we give our readers an opportunity to see the Honey Exhibit of Mr. John Newton, Thamesford, Ont. Mr. Newton is a young bee keeper of more than ordinary promise and is already in the front ranks. He has been with a number of well-known bee-keepers notably Mr. J. B. Hall, Woodstock, Ont., and appears to have made in every way good use of his time when with our old and highly esteemed friend Will Ellis, St. Davids.

Mr. Newton, is of Scotch descent and was born June 27th, 1867 in Woodstock, Ont., Oxford Co at the age of 15 years he went to work in the summer season for Mr. J. Hall, attending school in the winter, after serving four years with Mr. Hall. He then spent a season each with Dr. Thom of Streetsville; Wm Ellis, St. Davids, and Alpaugh of St. Thomas, now of California after which he started into business for himself at Thamesford, thirteen miles from his native home.

He has had good success in bee-keeping except the last two years which have not been very favorable, but prospects are good for the present season. He usually keeps from 75 to 100 Colonies, has always taken a great interest in the bee-keepers' Association and at present holds office as president of the Oxford Bee-Keepers' Association. Not only has Mr. Newton made a success at bee-keeping, but has always had success in exhibiting at the fairs. In the engraving in this number he secured 8 first prizes and 5 seconds with the sweep-stake prize for the most tasty arranged exhibit. At the World's Fair held in Chicago, 1893, he was awarded a medal and diploma which he hopes to get some day in the near future.

Toronto Industrial

AUGUST 31st to SEPTEMBER 12th.

CLASS 76—HONEY AND APIARY SUPPLIES.

Open to all Bee-Keepers (Agents excluded).

SEC.	1st.	2nd.	3rd.	4th.
1. Best and most attractive display of 50 lbs. of extracted granulated Clover honey, in glass, quality to count 75 points, display 25 points.....	\$5	\$3	\$2	\$1
2. Best and most attractive display of 50 lbs. of extracted granulated Linden Honey, in glass, quality to count 75 points, display 25 points.....	5	3	2	1
3. Best display of 500 lbs. of liquid extracted Honey, of which not less than 250 lbs. must be in glass, quality to count 75 points, display 25 points.....	20	15	10	5
4. Best 500 lbs. of Comb Honey, in sections, quality as per score card to count 100 points, display 33; total, 133 points.....	25	20	12	6
5. Best 12 sections of Comb Honey, quality to be considered, that is to say clean sections and best filled.....	6	3	2	1
6. Best 100 lbs. of extracted Liquid Linden Honey, in glass, quality to count 75 points.....	8	5	3	—
7. Best 100 lbs. of extracted Liquid Clover Honey, in glass, quality to count 75 points, display 25 points.....	8	5	3	—
8. Best 10 lbs. of extracted Liquid Clover Honey, in glass...	4	3	2	1
9. Best 10 lbs. of extracted Liquid Linden Honey, in glass..	4	3	2	1
10. Best 10 lbs. of extracted Liquid Buckwheat Honey, in glass.....	4	3	2	1
11. Best Beeswax, not less than 10 lbs.....	5	3	2	—
12. Best foundation for brood chamber.....	3	2	1	—
13. Best foundation for sections.....	3	2	1	—
14. Best Apiarian supplies.....	{ 1. Silver Medal and \$10 2. Bronze Medal and \$5			
15. Best and most practical new invention for the Apiarist, never shown before at this Exhibition.....	8	5	3	2
16. Best six varieties of uses to which Honey may be put in preparing articles for domestic use, the increase they are likely to make in the demand for honey, quality and originality to be considered.....	7	5	3	—
17. For the most tasty and neatly arranged exhibit of Honey in the Apiarian Department, to be limited to the quantities called for in the preceding sections, all the Honey to be the product of the exhibitor. \$25 of this prize is given by the Ontario Bee-Keepers' Association.....	30	20	10	—
18. Best display setting forth bee-keeping, the award given for the display which will be of the greatest value as a public educator. Some of the points to be illustrated being the natural history of the bee, method of bee-keeping, the magnitude of the industry. Any portion or all of the foregoing sections may be included in the above exhibit, and the articles exhibited need not be the production or manufacture of the exhibitor. \$25 of this prize is given by R. F. Holtermann, Brantford	35	25	15	10
19. To the exhibitor taking the largest number of first prizes for Honey at this Exhibition, 1896.....	{ 1. Silver Medal. 2. Bronze Medal.			

Entries positively close August 8th. Entrance fee, 25 cents each entry.

Bee-Keeping In North Dakota.

Christine, N. D., June 6.—To the Forum: I am now about to write a piece, stating our experience in bee-keeping, from the time we started it seven years ago, in '89 and up to the present year. Seven years ago, somehow we got the notion into our heads—I say we, because it includes a few more than myself—of starting bee-keeping. We just wanted to have two or three colonies, just enough to furnish honey for our own use, but they increased rapidly and we did not know how to prevent it. During these first years we had many experiences and some, if we should mention them, would cause considerable laughter. But I do wonder if you were to start without any knowledge about bee-keeping if you would act just as we did. We started in 1889 with one colony for which we sent to Wisconsin. We received it in the latter part of March, 1889, in very bad shape, as it had been smashed on the way, and many of the bees began to crawl out as it arrived at the depot. When we got it home we carried it up stairs, as the weather was too cold to put them out just then. One day we thought that it ought to be warm enough to put them out, but you see we did not know how much the bees could stand. The wind blew from the north that day, and it was quite strong. We spread the wire screen in front of the hive, to let them out. And out they came I can tell you! and in such a tremendous rush as they were, they started into the air, and, I am sorry to say, though I watched all day, I did not see many back again. There was about a cupful left in the hive, but fortunately the queen did not start out on the lively march. But I don't think we knew at that time that each colony had to have a queen.

The first year we got one swarm, which we sat watching for, in eighteen days. During these days that we sat watching for the bees to swarm, there came a man from Minnesota who said he knew a little about bees. It was a very warm day when he came, and the bees had gathered outside the hive and hung in large cluster. We had our new hive ready for the swarm. Well, he said the only way for us to be sure to get the swarm was to take a large bread pan and make a wooden spade. This was soon done, and we wanted him to practice what he preached." He started to work, got a veil and a pair of gloves. He filled up his bread pan, of course, and ran over to the new hive, opened the cover and poured them in; of course he closed the cover, but it did not help; they got back to

the old hive before he got there, so he had to give it up for a bad job. It should have been said that the old hive we got the bees in, was a square hive with gallop frames and we had not opened it since it arrived at our place, so we did not know how things were going on inside. We thought that they took care of themselves, without our help, and so they did the first year. In the fall of 1889 we put into the cellar two colonies, a good start for the next year. They came out in the spring in good condition.

In 1890 they increased to three colonies. That year we had one of our funny experiences of which I shall try and give you a brief account.

We had not taken any honey from our bees before. We selected our first swarm as the victim of our cruel treatment; as we have since called it. And now comes into my mind, to say a few words about the smoker we had. It was one of our own manufacture. It was made of an old rubber boot, which served for a bellow, and the fire box was made of a salmon box. A good looking thing I tell you, but the strength of its blowing power we will not dispute. Now back to the hive, it was opened as gently as possible, no veil was used, and nothing on the hands either, which we did not use for the first three years, but have been using afterwards. What a sight we saw when the hive was opened, the bees had started to build from one corner to the other, not a single frame could be removed without injury to the combs.

To the house we went for a knife and a cut was made between those frames which we wanted to take out. I believe three frames were taken out and the hive closed. After about five minutes time you should have been at the scene. Out of the entrance came a stream of that sweet nice honey, carrying with it large numbers of its owners, the bees I mean—thousands and more than thousands came to the end of their work. We did not know what to do, so we went to work and made a new entrance and bored a hole under the bottom of the hive. The hive was standing on a chair three feet high from the ground so it could easily be done. That was the first and last time we tried to take honey from our bees that year.

In the fall of 1890 we put three strong colonies into the cellar. In the spring of 1891 we took them out of the cellar all in good condition. We had now a little experience and had also read from a bee-book called "The Bee keepers Guide," by A. J. Cook which helped us a great deal. In this book we also saw the description of the Langstroth hive and frames. We

sent for one hive complete with frames and all, which we used as sample.

As soon as the bees could find any honey and nectar we started to transfer them into the new Langstroth hives, which we had made and all went nicely. The bees liked their new hives, and we liked them still more than the bees did. We did not think of running for comb, but started out for extracted. An extractor was got, which was a Novice's two frame extractor. We also improved our smoking apparatus, by buying a Clarke's Cold Blast smoker, which served us a number of years, when its place was taken by a Bingham, which we liked very much. In 1891 our three colonies increased to five, all went well through the summer, they gathered not so very little honey. All came out in the spring of 1892 in fine condition. One of the swarms of 1891 was given to our neighbor H. B. Hanson, who had started with bees the same year as we did, but they died out for him. From this one hive he has got eighty-nine colonies now. During the summer of 1892, they increased to eleven. All came out in the spring of 1893, and increased during the summer to twenty-seven. In the winter of 1894 we lost three colonies, which I believe was the first bees we had lost in wintering. During the summer of 1894, the twenty-four colonies that were left increased to forty-five, but several swarms strayed away and were not found. I am now coming to the last year, and will try and draw my story to an end, as it is already too long. We lost two colonies in the winter of 1895 and came out in the spring of 1895 with forty-three colonies. They increased during the summer of 1895 to ninety, which were put in the cellar, and were taken out this spring, five colonies were dead, and we have eighty-five colonies left. Our bees gather most of their honey from basswood, which produces the finest honey. I presume that many readers have never seen bees, and do not know how they work, and what they look like. If anybody should like to know how much it costs to keep bees, just take a trip up to our bee yards, and you can see for yourselves. Every question about bees will be answered cheerfully.

NELS & HANS HANSON.

"H'm!" said the man with the inconvenient memory. "The paper says that Miss Footlites swept the house with her charming smile. When I knew her, 18 years ago in Garrity's boarding-house, she used a broom."

The Season.

The question of rainfall figures to a greater degree with us in Southern California than any other location with which I am acquainted. At this time (April) the precipitation in Solidad canyon and Newhall districts does not vary much from seven inches; some parts of the district named have had more, others less. Now the question comes up, what are we going to be able to do the present season? I have met a few bee-keepers of the "never s die" type who still maintain that we are going to make some surplus honey yet this year. My acquaintance with the portion of the state extends over a period of 22 years, and so far, unless we have gotten rains by or (I mean six or eight inches) before February 1, we have never made any surplus honey. The lower portion of Solidad canyon, and in the Newhall district we had only two inches rainfall up to March 2, then we had a series of fine showers accompanied with snow that brought the fall up to six inches, and last week .75 of an inch more, which is the total for the season. Then the last few days of March and the first of April had a Mojave zephyr dry enough to shatter even a bee-keeper's promise without regard to his honest intentions when such promise was made.

As an indication of my faith in the season I have arranged to scatter my apiaries in five different places to enable the bees to board themselves, piled my supers containing honey in my extracting house to save for use at the end of the season or during the summer as occasion may require. I may as well make our mind now as late on that this is an off year, and turn our energies in the direction of saving our bees and perfecting our distributing system while we have leisure time. Our failure for marketing honey have so far been neglected while a reckless system has been allowed to grow up that has in some districts nearly swamped the bee-keeper, even with his tons of fine honey. The movement lately inaugurated will, if persisted in, any errors made in the beginning (it should creep in) be promptly corrected, give the producers a constant outlet, and prices that will at least be uniform for the entire honey-producing district. Let us look forward to a prosperous year in 1897, and show the world that we have faith in the future, and, like the gentleman, that we have "de san."

Rural Californian.

Thompson, Cal., April 2, 1896.

John G. Carr

Bee-Keeping as an Occupation.

have a son who has a position on the road. He has weak lungs, and it looks though he would have to give up his occupation. He has a desire, on account of health, to make bee-keeping his main occupation. Now the important question presents itself, if a person with quite last requirements can support himself in this way? I would like to have this question answered by you.

I know very well that you will think that I ought to know this myself. Quite right, in connection with this comes the consideration of the adaptation of the learner; I understand the matter, and if the locality is good. But of this I must of course form an opinion. Here we can with our utility, in one day's journey, reach the weather.

is a suitable location, a desirable place can easily be found where provision can be made for increase. The year 1893 with us, as well as other places, a very bad one; yet, those who wanted comb honey only, did not come quite up to their expectations, as the bees capped honey very early, while those extracting could do so only for three or four days. It gives here considerable wood with raspberries and strawberries. Then we have orchard, honey from alders, linden and other blossoms. In the other (Erika) there is some yet grows but little nectar, and for this reason: it will pay better to move bees to the other.

My son has some practical knowledge of bee-keeping already, and, as he understands the matter and quickly, he would have no great difficulties to overcome. I myself have no space with the hives. For this reason I know that the bee-keeper has many difficulties to contend with, and that often after many years and sometimes failures may be in. Providence does not throw us its gifts in our laps. It is therefore important that I have the opinion of a really experienced bee-keeper to help me to a conclusion. I should like a reply in the *Deutsche Illustrierte Zeitung*.

AUGUST H.

For the above explanations from you, I do not hesitate a moment to recommend bee-keeping as the main occupation to your son. He has a good opportunity to learn bee-keeping with you, and, through study, to put himself in the theory of bee-keeping. It is to his profit that he can lay the foundation you have laid. It is especially essential to the bee-keeper who has a calling, that he sticks to some thing and does not allow himself to be led

astray, and allow himself to be drawn one way and then another. He must also "wander" with his bees. Wandering or moving bees only have the best results when it is followed as a system. We have in the localities where we have so far kept bees, mostly good yields of honey, from fruit bloom, and a full flow in summer until the middle of July; but as to fall pasture, we cannot depend much on such. Often, however, it has happened, contrary to the rule, from fruit bloom and from summer blossoms at home the bees secured nothing, while not far from us the bees were rolling in surplus. When we found this, during the morning of one day, the following morning our bees stood in this favorable locality. It is necessary to be able to transport quickly, for the value of one good day every experienced bee-keeper knows; he also knows how quickly a good flow may be cut off. We have also experienced that just as we moved our bees that our expectations were not realized, while the flow at home became very good. In such a case we did not lose a moment in bringing our colonies back.

A professional bee-keeper must, then, move about with his bees, and the quicker and more securely he can arrange to do this the better. That depends, however, greatly upon the arrangement of the hives, and as you have the arrangements best for this purpose, so far as I know there is nothing in the way of the success of your son.

(Translated from the *German Illustrated Bee Journal*.)

 Brant Bee-Keepers Association.

Brant Bee Keepers' Association met at Court House, May 9th, 1896, 2 p. m. President Shaver, Cainsville, in the chair. Spring reports showed an unusual number of queens lost but a slight winter loss. The Canadian Bee Journal was taken for the year 1896. Which will throw the most heat in solar wax extract. A single or double glass? A difference of opinion appeared to prevail, but the general impression was that unless a current of air got between the two glasses the two would develop the greater amount of heat.

Members were pleasantly surprised to find Mr. Wm. McEvoy, the Foul Brood Inspector present, a rambling discussion took place upon various subjects. Before the formal opening members expressed considerable indignation because the law was not observed in regard to spraying fruit trees while in blossom.

The Weed Process of Manufacturing Comb Foundation.

Accepting an invitation from the Goold, Shapley & Muir, Co., I paid a short visit, a few days since, to their establishment at Brantford, and there witnessed the manufacture of comb foundation as carried on by the Weed process.

As I was much taken with the machine, I will endeavor to give the readers of the Canadian Bee Journal, some idea of its working. I am not however, a good descriptive writer, and therefore trust that due allowance will be accorded me, in my attempt in this direction, the more particularly so, that I am limited for time, at this moment. The machine is certainly an ingenious affair, and quite on a par, in my humble opinion, with the many other more modern improvements in manufacturing machinery.

The first thing in the manufacture of foundation, in this, as any other process, is the melting of the wax, and this is done in a large tank heated by steam, the wax in no way coming in contact with water during the melting process. As it becomes liquified it runs into a smaller reservoir in front of and coming immediately in contact with a hollow revolving metal cylinder, about 1 foot in width by a foot in diameter.

In order that the wax sheet on the cylinder a stream of ice water is constantly flowing through it, in a particular way and in such a manner as to keep at the proper temperature. Immediately behind the cylinder is another small reservoir or tank, containing water through which the sheeted, or more properly speaking the rolled wax passes, as soon as it leaves the cylinder. About two feet further back there is a wooden roller about a foot long by 4 inches in diameter, on which small tin cylinders all temporarily adjusted for receiving the foundation. Just as fast as it is being sheeted, it is rolled up into coils of about twenty-five pounds, and after being removed and piled up it resembles to a great extent the rolls of leather belting found for sale in an ordinary retail hardware store having however an altogether different aroma. This machine is capable of making one pound a minute of either brood or section foundation which is cut to the right width for either, by small and well arranged knives as soon as it leaves the sheeting cylinder.

It is claimed for foundation made by this method, that it sags less, and will not break or crack when it becomes cold, and the latter statement seems to be correct in so far as I was able to judge, as a piece of

section foundation which had been placed on ice for a time while I was present was so pliable and soft that it could be bent into any shape desired.

I am not as yet in a position to make any statement in regard to its sagging less while being drawn out by the bees as is claimed for it, but have been furnished with a quantity for experimenting with, and as soon as I can will give the readers of the Canadian Bee Journal the result of my trial.

Trusting this short, and I regret to say rather hurried account may be of some interest to the bee-keepers at large I will make no further comment thereon at present.

F. A. GEMMELL.

Stratford, June 26th, 1896.

York County Bee-keeper's Meet.

—LEWIS MAPLES, Sec.

The Y. C. B. A. met at the residence of Mr. P. Byer, Markham, on Tuesday the 26th inst. Among those present were: Messrs. W. S. Walton, pres, Scarboro Junction; J. Davison, Unionville; D. W. Heise, Bethesda; Wm. McEvoy, foul brood inspector for the province, Woodburn; S. Hall, Pine Orchard; J. March, Bethesda; A. H. Crosby, Markham; Anthony Ions-ton, Wexford; R. W. Ward, Claremont; W. B. Button, Ringwood; Jas. Slack, Claremont; L. B. Baker, Ringwood; L. Maples, Markham; A. D. Reesor, Markham; J. Brown, Markham; Mr. and Mrs. Ira Badgerow, Bailantry; and others.

After the usual formula of opening the meeting the president made a short address and then called on Mr. J. Davison, for a paper on his method of producing comb honey. Mr. Davison has produced a great deal of comb honey, and has been very successful in winning prizes for his product at our agricultural fairs. His remarks which smacked strongly of experience were followed by a few comments by Mr. McEvoy and others.

The delegates, Messrs. D. W. Heise and L. Maples, who were sent to represent our society at the annual meeting of the Ontario Bee-keepers' Association held at Brantford in January, were then requested to give their report. After an expression of approval from the society for the work that they had done, Mr. D. W. Heise was asked to read a paper on "Some things we should not do." Mr. Heise has found out pretty well the things we should not do.

bee-keeping. Perhaps the next time we meet he will tell us some things we should do. His paper was well received.

The president then called on Mr. McEvoy for an address. In his opening remarks Mr. McEvoy commended the government very highly for the bills that they had passed in the interest of apiculture, making reference to the foul brood law, the spraying law and the pure honey law. He then talked for a short time on the cause and treatment of foul brood. His address was very instructive and was well appreciated.

The president and secretary were authorized to frame a resolution and to forward the same to our government commending them for the work that they have done in the interest of apiculture in our country.

After making Mr. McEvoy an honorary member of our society, the company repaired to the dining-room where a beautiful tea was served, after which hearty expressions of thanks were tendered to Mr. and Mrs. Byer for their hospitality, the meeting adjourned.

I wish to say here for the benefit of all who may wish to join our society that the annual membership fee is 50 cents, and every member receives as a premium the Canadian Bee Journal.

Markham, Ont., May 29th, 1896.

Bees Covered With Snow.—Double-Colonied Hives.

The problem whether bees suffer any injury from the hives containing them being completely covered with snow, does not receive much attention. I winter one-half of my colonies on their summer stands, which means that through February and March, the larger number will be completely covered with snow. I never allow the snow to lay close to the entrance of the hive. This is prevented by sufficient width of boards leaning in front, at an angle of about 35°, and then pieces nailed on at the ends, to cover up the space so formed, and going a little way past the front end corners of the hives. I purpose making this fast another year, so there will be no chance of it being pushed back from any cause. There is always a few feet of air space, no matter how deep the snow. I never consider it safe to leave the hives long covered with snow, even with the protection mentioned, especially if a crust is formed on top. The plan I have adopted the last two years and will this year is, within two or three weeks of their being covered, dig out a space in front as long as the hive and say two feet wide, (being very careful not to touch the

hives or disturb the bees in any way,) and then, after removing the protection in front, spoken of, to see if the entrance is free from dead bees, I replace it and cover the holes in the snow in front of each hive with boards or anything else that will do, (any covers from those hives in the cellar, being long, answer well), and if they do not fit snugly I throw some loose snow over, unless there is a danger of the bees becoming too hot; and I have no further fear regarding them. When a day comes warm enough for the bees to fly, I simply lift off the covering over the large air space in front, remove the protection I first mentioned, and fly they can. There is a great gain, too, in being able to uncover all in such a short time, should a warm day appear. Bees thus protected have almost all the advantages of those in the cellar, besides that of having a fly should a warm day occur. I am not anxious for this before the middle of March however. While I like cellar wintering, those wintered outside seem to build up quicker for the harvest. There is a gain in wintering half each way; it divides up the work of carrying in and out, and those outside can generally be attended to before those in the cellar are brought out. I might mention all those I winter outside are not only in double-wall chaff-tiled hives, but each hive contains two colonies.

In a future issue or more of this journal, I will describe this double-colony hive, its advantages for out-door wintering, and how managed for extended honey and at swarming time, with clipped queens, without moving a hive.

G. A. DEADMAN,
Brussels.

In My Own Apiary.

I commenced the season of 1895 with forty colonies, a few of which were not strong. They had been wintered on summer stands, so that I did not need to unpack them until they became strong and the weather became warm, which was not until June. During the month of May there was an abundance of dandelions, which, together with the early fruit bloom, enabled the bees to crowd the brood chambers with nectar, not leaving the queen room to lay to her full capacity.

I placed shallow supers on a few of the most crowded. But the weather soon changed; the dry and warm gave place to wet and cold, with severe frosts. The honey was rapidly consumed; the queens ceased to lay, and in some cases unsealed brood was chilled. I did the best I could for them, by contracting entrances and

giving feed where necessary; so that when the clover commenced to bloom, they were nearly all ready for supers. A few, not yet strong, were doubled up.

A pair of scales was placed under a good colony, which gained 2 to 6 lbs. per day, and for a few days 8 lbs., and one day 9 lbs. This was when the Alsike clover was in full bloom.

The weather now becoming hot and dry, the Alsike clover ripened, and much of the white never bloomed. And thus before the end of June the honey flow ceased. The basswood buds having been frozen, there was no prospect of another flow. We do get fall honey here. As there has been no swarming, there are but few young queens in the yard, so I decided to remove many of the old queens, and give cells; in some cases, however, allowing the colony to raise a queen from its own brood. I do not care to winter a lot of old queens that may fail when most needed. While removing queens during July, I found a large amount of brood in all stages, consuming stores, and will not be needed when matured, so I judge it will be an advantage to be without laying queens for a few weeks. It will also make room for winter stores, by allowing brood to hatch.

At this date (Aug. 12th) the bees have found some buckwheat some miles away, and are sending out an occasional swarm, where laying queens were not removed.

MOSES PIERCE,
Brinsley.

Why Colonies Crowded With Honey Do Not Winter As Well As the Medium.

(From European Journals.)

With very good late flows, the bees lengthen the cells as far as practical to be able to store up as much honey as possible. Through this lengthening, however, the spaces between the frames become very narrow, and allow too little air spaces. To such colonies the winter location will be cold, as the thick combs of honey distribute the bees too much, and the cluster be correspondingly enlarged.

I have among my honey a goodly portion which was uncapped when extracted. Should I not feel alarmed that it might sour?

Opinions are divided upon the question as to whether honey should be all capped before extracting or not. An indication that something can be said in favor of

either side: One side says only the capped honey is ripe; the other claims that the honey kept in large vessels ripens just as it does in the hive. Honey thus taken unripe must stand very dry and warm, and it must not be kept closed over or sealed. The ripe honey, through gravitation, being heavier, falls to the bottom, while the unripe rises to the top, where the surplus water evaporates. So have your honey standing warm and dry, and you need not be alarmed. Certainly he who allows his honey to be half capped will be safer.

In America they have a machine, the evaporator for ripening honey artificially, but even in that country many contend that only such honey as is ripened in the hive is of fine quality.

[We do not believe there is a single such evaporator in use in the Dominion of Canada.—ED.]

Working the Same Colonies for Both Extracted and Comb Honey.

In producing comb honey I gave the crate system a thorough trial, and also the broad frame method as followed by others, and never was fully satisfied with the results of either. As I was running my apiary more for extracted than comb honey, I concluded after some testing that I could make a big success of getting nice section honey made very fast in top storeys among extracting combs, and also get a fine quantity of choice extracted honey from the same colonies, and greatly lessen the number of swarms. When the honey season begins I place on my strongest colonies hives filled with the very *whitest* of combs, and when the bees are storing honey fast I remove half of the combs, then spread the remaining half apart and hang between them broad frames with sections in. The bees will then rush up the extracting combs, and with no separators in their way will fill the sections very fast. When the sections are about three-quarters full of comb I shift the extracting combs to one side of the hive, hang tin separators between the broad frames and then crowd them up by themselves. The top bars and ends of the tin frames are made out of double tin, the ends of the tin frames are made out of double tin and the ends of the separators are soldered to the uprights or end of the frames, leaving the usual space between the separators for the bees to get in at the bottom and top edges of the sections. The last half of the season I crowd the broad frames with sections in to the centre and

place the extracting combs at each side of them, so as to have little or no unfinished sections when the honey harvest ends. I always fill my sections with foundation because it pays me far better to do so. When I followed the crate system and also the filling of the top storeys with broad frames with sections in, I was sometimes caught with many unfinished sections by the sudden closing of a honey flow. This combination system of taking both section and extracted honey from the same colonies and the tin frames with separators on, that I got up to suit it works fine.

WM. MCEVOY,

Woodburn, April 14th, 1896.

Foul Brood.

HOW WE MAY KNOW THE DISEASE.—It is difficult to diagnose this malady. As the name implies, the germs only attack the larvæ or brood. In case the larvæ are affected they do not develop but really putrefy, for putrefication is only the attack of organic matter by some bacterium. Usually, unless the disease is well under way there will not be many diseased larvæ on a comb, and so the odor about the hive will not be so manifest as to give warning of the presence of the evil; yet the observing apiarist—and no apiarist can afford to be other than observing when this disease about—may still detect the presence of the malady. The cells with the diseased brood will either not be entirely capped over,—that there will be a small central hole in the cap— or else if capped over, the cap will be concave like the capping of the honey cell instead of convex. Thus when brood cells are seen with small holes in the capping or with the caps sunken, we should at once examine to see if the cause is foul brood. The best way to make the examination is to take a pin, push the head into the cell and pull it out and if it brings with it a brown stringy mass, looking like decayed organic matter which when it lets go from the head of the pin, flies back as if elastic, then surely the disease is present in the hive. The new bee disease of the last few years is entirely different. In that case, the larva turns black but keeps its form and does not turn to a decayed salvy mass. Thus I have given a description which will enable every person to easily determine the presence of this dreaded disease.—Rural Californian.

The Markets for Honey.

The report of the Secretary of Agriculture just issued contains the following paragraph of interest to honey producers:

The English honey market is supplied by the home product, from the United States, and from Chile. There is a large and steady demand, and, though sometimes exceeded by the supply, this is an unusual occurrence. The English honey harvest has been very good this year, and it is selling upon the retailer's counter at from 20 cents to 25 cents per pound. Wholesale prices at the latest date obtained are as follows:

English: Earthenware pots, finest,	
per doz.....	\$1 45
Earthenware pots, finest, $\frac{3}{4}$	
pound, per doz.....	90
Flint glass jars, 17-ounce,	
per doz.....	1 70
Transparent honey, in	
glass jars, nickled	
plated, screw top, per	
doz.....	1 57
United States: Thurber-Whyland's	
white sage, strained,	
1-pound jars, 2 doz.	
in a case, per doz...	2 30
California, in original cans, about 56	
pounds per cwt, of 112	
pounds.....	9 60
Chilean, in original cwt. kegs, per cwt.	8 75

The American white sage commands the top price. It is delicious honey and most attractively put up. All honeys sent to England are strained except a nominal quantity that reaches there in the comb from California. California shipments of strained honey are made in 56-pound tins, two tins in a case. Chilean usually comes in 60-pound kegs, but sometimes in 112-pound barrels. It is not a matter of great importance, as to size of packages, etc., though it would be well to conform to the California practice. It would be ruinous to send adulterated honey to England.

Our agent in England has had several inquiries as to honey market this year, especially from Texas, and he has supplied inquirers with names of importers in England, and with information as to how to approach them, and this he will be pleased to do for all inquirers.

The department has knowledge that some years ago a large honey maker in California found in China a profitable market for some 20 tons of honey annually.—The Rural Californian.

Out-Door Wintering.

The hive used by the writer is the standard eight frame Langstroth with Hoffman self-spacing frames and follower, using eight frames all the year around. Instead of a piece of cotton cloth to cover the frames with, a super cover is used summer and winter, made out of a board $\frac{1}{4}$ inch thick nailed on a $\frac{3}{8}$ inch thick rim, a bee-escape hole $1\frac{1}{2}$ inches by 3 inches is cut in the board at one end, which is covered in summer with a thin piece of wood, and in winter with a piece of cotton cloth. The supers are taken off (using bee escapes to clear them of bees) about the first of August, when each colony is seen to have a good queen and at least ten or fifteen pounds of honey, when they are now given a rest till about the first of September, when each colony is put separately on the weighing scales, and the amount short of thirty pounds of stores is noted in the record book. The percolator feeder I like best, which I make as follows: A box $12 \times 17\frac{1}{2}$ inches outside and 5 inches deep inside is made, using $\frac{3}{4}$ inch pine lumber; this is put inside of an empty Langstroth extracting super, and crowded to one end, leaving a $\frac{1}{2}$ inch space at the other end of feeder, which will be the front end. Both super and feeder are nailed together with small nails for the time while feeding. Across the front end of feeder inside a thin board $5 \times 10\frac{1}{2}$ inches is put in, leaving a $\frac{3}{8}$ inch space between it (the partition) and end of feeder, also a $\frac{3}{8}$ inch space is left under the bottom edge of the partition, which is closed by a strip of tin punched full of very small holes. The top edge of partition is up a $\frac{3}{8}$ inch above top edge of feeder. On this partition a strip of wood two inches wide is nailed, covering the passage way for the bees. A second partition is put across the feeder about half way back, (a small space is left under it) making two apartments; the one next to passage way of bees, for sugar, the other for water. When ready to feed, raise front end of hive up one inch higher than the back end, leave the super cover on, only removing the cover of the bee escape hole, which is at the back end of super cover, put the feeder on the passage for the bees in the feeder over the back end of the hive. The same amount of sugar that the colony is short of stores should be put in the feeder, and a quarter as much water as there is sugar added, adding more water when

necessary. As little water as possible should be used. When the feeder is empty remove it, covering the bee escape hole in the super cover with the strip of wood that was removed when feeder was put on. The hives are placed four in a group, two facing east and two west, with backs together both summer and winter. As soon as a group of four hives are supplied with the necessary stores, they are lifted off their stand, and a packing case large enough for four hives is set on the stand. This case is 36×46 inches inside and 2 feet deep at south side and $2\frac{1}{2}$ feet deep at north side. Strips of wood 3 feet long run crosswise of cases for the hives to rest on, those under the front end are one inch deep, and for the back end 2 inches deep. Entrances to outside cases are 2×8 inches. Put in the hives, place a bridge full width over the entrance to hive, pack underneath and around the sides, but none on top until about the first of October, when the strips of wood over the bee escape holes are removed, and pieces of cotton cloth substituted, fill in packing about half way up to the top, now lay in two flat hive covers in the centre of the case, leaving a hollow under them in the centre, fill case up to top and a waterproof cover over that, which could be covered with tar paper. For packing material I prefer forest leaves, but have never tried planer shavings. The entrance to hives are left open full size, but when cold weather comes a hive cover is leaned up in front of the entrances. When it snows shovel it on the hives over the entrances and all. About once a month the entrances are cleared of dead bees with a bent wire. In the spring the entrances are closed up to a $\frac{1}{2}$ inch with a strip of pasteboard or a fold of paper, this the bees will remove. If you have the packing out replace the cotton cloth which is over the bee escape hole for a piece of board. Unpack about the first of June.

Ontario, Canada, April 22nd, 1896.

Oxford Bee-Keepers.

The spring session of the Oxford Beekeepers' Association was called to order by the president, Jno. Newton, at one p. m., May 29th.

The minutes of last session being disposed of, the president referred appropriately to the decease of our old and much respected member Dr. Duncan, of Embro. A letter of condolence to the bereaved friends was carried unanimously.

The spraying carried on throughout this section under the auspices of the Ontario Government was criticised as violating the

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R. F. HOLTERMANN, - - EDITOR.

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spraying Act inadvertently, and F. A. Gommill was chosen a committee of one to wait on the Minister of Agriculture and have the matter righted.

It was moved, seconded and carried, that this association affiliate with the Ontario.

By a unanimous vote the C. B. J. or substitute is to be presented to each member.

Mr. S. T. Pettit showed and explained the working of a very simple, but ingenious robber defearer. The discussion, following brought out an almost unanimous verdict that colonies which allow themselves to be robbed are of very little use anyway.

Freight rates in connection with honey got a thorough shaking up. It was hoped that the Ontario Association would take the matter up in a more specific and earnest manner than has yet been done, and approach the transportation companies in regard to cheaper rates. Transporters of cheese, beef, cattle, horses, eggs, butter &c., &c., "made their requests known," and in many instances material reductions had been made, while bee-keepers like the "shy bugs" waited to be asked what they wanted.

The question session was occupied with the following:

What is best to do with combs in hives in which bees have starved? Several answers were given, the best of which was to cut the cells half down. That method enabled the bees to clean the combs out leaving the septum and a greater portion of the cell walls than they would leave if given the combs entire.

How to run an out apiary without being constantly with the bee? This question was proposed by J. B. Hall. A look of—well—something that indicated that all was not yet learned or known about running bees. If J. B. didn't know, who, in Canada at least, does? He admitted he could and did run out aparies but it was expensive and wearisome to the flesh. This was an age of lazy and cheap methods. Has one been discovered by which an out apiary can be run? Silence answered.

What use is there in superceding queens in fall and how does it work? The well known methods and objects were advanced and except for a special purpose the practice was considered useless.

Are not local associations responsible for a great deal of this failure? How is this state of things to be rectified. Of course the question could hardly be answered.

A motion to meet in November and adjournment brought to a close one of Brantford's usually interesting and instructive sessions.

J. E. FRITH, Sec.-Treas.

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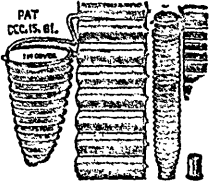
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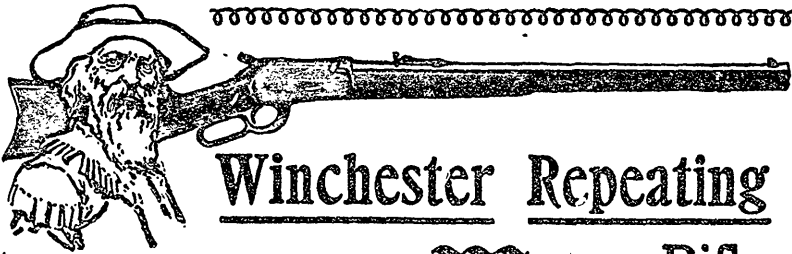
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