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WHOLE NO  
467.

## Keep A-Goin'!

When you strike a thorn or rose,  
Keep a-goin'!  
When it hails or if it snows,  
Keep a-goin'!  
When 'tain't no use to sit and whine,  
When the fish ain't on your line  
Sit your hook an' keep on tryin'—  
Keep a-goin'!

When the weather kills your crop,  
Keep a-goin'!  
When you tumble from the top,  
Keep a-goin'!  
When you're out o' every dime?  
When 'tain't broke ain't any crime;  
When all the world you're feelin' prime;  
Keep a-goin'!

When it looks like all is up,  
Keep a-goin'!  
When you gain the sweetness from the cup,  
Keep a-goin'!  
When you see the wild bird on the wing;  
When you hear the bells that sweetly ring;  
When you feel like singin'—sing;  
Keep a-goin'!

—Frank L. Stanton.

The use of honey for inducing sleep and quieting the nerves is a new thing. Wurth tells us in Die Zeitschrift that one night, when unable to sleep, he arose from his bed and helped himself to some biscuit and honey. The effect was gratifying. Since then he has taken two or three tablespoonfuls of extracted honey at intervals frequently at night when restless and has always experienced the same result—sleep. Nervous people ought to make a note of this. — American Bee-Keeper.

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+ *Ontario Bee-keepers'* +  
+ *Association* +  
+ ANNUAL MEETING +  
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(Continued from last month)

1ST DAY (EVENING SESSION) 7:30 P.M.

The President in the chair called the Convention to order and Mr. W. J. Brown presented his paper on "Why I am a bee-keeper," which will be found on another page in this issue.

Mr. Heise: I think the reasons Mr. Brown has given as to why he is a bee-keeper would probably cover the reasons most of us are bee-keepers. The financial advantage is the greatest reason perhaps of any other why we are in the business; I know it is so with me, although it affords me a great deal of pleasure as well. I don't know that I have anything further to say except that there is one other reason which Mr. Brown has not mentioned why we should be in the business; our good Presbyterian friends put it that the first aim and object of man should be to glorify God, and possibly that should be our aim and object in entering into the bee business and the financial part might come secondarily. (Applause.)

The President: The paper is very

pleasing and just what we should expect from an Irishman.

Mr. R. F. Whiteside next presented his paper, entitled "Spring Management." (See paper on another page.)

Mr. Post: Mr. President, Mr. Whiteside's paper was more I think on the outside wintering of bees than spring management and there is nothing very definite in the manage-



J. W. SPARLING, 2nd Vice-Pres. O.B.K.A.

ment for the outside. Do you allow cracks in the hives outside, Mr. Whiteside?

Mr. Whiteside: They seem to get there pretty often.

Mr. Post: I have my hives packed with four inches of sawdust tight and dry and good cushions on top for outside wintering. I think in his remarks he says he separates the combs early in the season and places dry or empty combs in the centre of the brood nest. I don't think that is right in the early part of the season; it would not answer in my locality. I don't want to shift the combs, if I do

it at all, until just the approach of clover yielding honey. As far as bees wintered inside is concerned, I don't think he differs a great deal from me in carrying them out. You carry them out after the snow is down?

Mr. Whiteside: Of course I quoted Root.

Mr. Post: That is one thing I don't believe in, to carry them out in March; I don't think that would work with me at all; I like to keep them in and keep them as quiet as possible until they are set out for good.

Mr. Gemmell: Have you never set bees out in March?

Mr. Post: If I set them out in March they are to remain.

Mr. Gemmell: I have, as an experiment, placed them out in mid-winter.

Mr. Post: There were some remarks made about destroying ants and so on. I never think of killing an ant in my yard; if the yard was covered with them I would not kill an ant on account of it doing bees harm. I never saw them do the bees harm.

Mr. Brown: Perhaps the difference in localities would have quite a bit to do with it. It is altogether likely the locality of the writer of this very fine paper is further south than the last speaker; I am sure he must be further south than I am otherwise if he set them out in March he wouldn't have very many to carry back in again. The ground is usually covered with snow in the month of March and I think if the bees were carried out of the cellar they would be very apt to make a rush out and not come back again. If they were wintered outside it would be alright, but to carry them out and give them a fly and then carry them back is a thing I would not approve of in the north-

ern part of Ontario. With regard to setting the centre of the brood nest to the outside of the hive in the spring, I certainly would not approve of that; I would try and hold as much of the brood in the centre as possible. As to setting on supers during fruit bloom, in our part we have very little fruit bloom. Whatever there may be, the weather is then too cold and wet and windy for the bees to get to it, consequently we never have any surplus honey from fruit bloom in my part.

Mr. Fixter: Did I understand the gentleman to say that April 15th is about the right time to set bees out?

Mr. Whiteside: Yes, I find April 15th about the time.

Mr. Fixter: I could not agree with you; I think they ought to be set out a great deal earlier. We are about as far north as Mr. Brown and we set them out on the 22nd of March this year and they have done very well. For many years we have set them out when there was a foot of snow and they have done very well. We don't believe in leaving them in the cellar too long. He also said during the winter you should shovel the snow off. Wouldn't it be much better in a place where there is so much snow to keep them inside, in the cellar?

Mr. Whiteside: This is more particularly for out yards. There would not be room in the cellar and I would not want the bees in there. Personally I have no choice.

Mr. Fixter: Then he speaks about the frames that the bees have left during the spring. With those frames wouldn't it be better to keep them in the dark so that the "millers" would not get at them?

Mr. Whiteside: There are cellars you can keep them in but it is the exception, not the rule. As far as my experience goes a cellar is a poor place for pollen combs.

Mr. Fixter: By setting your bees out and taking three or four days to do it have you ever found any trouble with the bees going together?

Mr. Whiteside: I quoted Doolittle on that; I thought it was a very good plan when I read it, better than putting them all out at once.

Mr. Miller: The time of clipping queens was mentioned, if I understood rightly, as being done at the time of setting on the supers. With the majority of us I am afraid we would get sadly behind if we left the clipping until the hives became so populous and attempted to do it at the time of putting on supers. I like to clip in the fruit bloom.

Mr. Dickenson: I agree with Mr. Fixter in regard to setting out the bees early, still I think no member of this Association should give any certain date for that; I think locality has quite a bit to do with it. As to snow being on the ground when the bees are put out, some seasons it is almost impossible to get them out when they should go out without having snow on the ground. I have found it a good plan when I thought there was any danger of the bees flying and dying on the snow, to sprinkle a coat of straw over it.

Mr. McEvoy: Mr. Whiteside said one thing that I think every person should pay more or less attention to, that is, bringing queen cages to the bee yard. Sometimes you will find a fine young queen that might be robbed out and you have got other queens that you would rather do away with, and if you have the cage on hand and catch that queen and cage her it is a good thing.

Mr. Pettit: I would disagree with Mr. Miller in the matter of clipping queens in fruit bloom. I find if I wait until fruit bloom, with a good many colonies they are pretty populous. I like to do it the first favor-

able day when the temperature is high enough and the bees are getting a little honey. Get at the clips just as early as possible and you will make a great deal more speed and get along better. Then as to the snow, I set out a great many this year early in March when we had the warm weather, and I could not see



WM McEVoy

Inspector of Apiaries for Ontario.

any difference between those and the ones I set out later.

Mr. Darling: Two or three years ago there was quite a lot said at our convention about setting out bees early and it chanced to be a pretty nice March following. I set out some, maybe ten colonies in the fore part of March and the balance of the bees on the 26th. For some time I thought those set out earlier were going to be ahead of the others but when it came time for the honey season every one of them was weaker than those put

out later on, but I think with the majority of those who have spoken it is not proper to keep the bees in the cellar too long. One thing I have noticed, if the bees come out of the hive with a rush they get over each other and tumble in the snow and water that may be near. If you can get your bees out slowly and naturally as they would fly there are very few bees die on the snow that would be of any benefit if they got back to the hive. There was a good deal of emphasis put on the fact that we ought to have a certain kind of a day and a certain kind of weather and the wind in a certain direction to set our bees out. I got fooled on that two or three times and once or twice I thought I was so sure of knowing what was going to be the next day I put the bees out the night before but it turned out unfavorable and probably they stayed in two or three days before they could come out and I couldn't see the bees were one bit the worse. If they are set out in the evening so that they don't rush out and get the cold air the next morning they will come out quietly and civilly as bees ought to. I think I made a mistake in keeping the bees in too long. I don't like the wind when the bees are flying.

The President: In remarking to Mr. Hall that those in the cellar did not build up so fast as those outside he recommended taking them out earlier. The difficulty was the bees in the cellar did not get any water and until they got a drink they did not start breeding. I find it a good thing, if the weather is suitable, but the weather is not always the same each year. Some years it is advisable to take them out a couple of weeks earlier. As far as fruit bloom is concerned I like to have my super on as soon as it starts. I have probably three hundred acres of fruit around

me and they make considerable surplus that tides them over without feeding between fruit bloom and clover. It depends a good deal on locality.

Mr. Darling: With regard to setting bees out earlier I think there is either a difference in the bees or a difference in the cellar one season with another, or a difference in the food they have been having. I have put out bees quite late in the spring and scarcely a colony started to breed. I have put out the bees in good time and I wouldn't open a colony that did not have young bees crawling over the combs; that is something I can't explain; but invariably the colonies that have young bees crawling over the combs when I put them out, without some accident, are the best colonies when the honey season comes.

Mr. Holtermann: In this matter of putting bees out in the spring of the year, I used to keep them in until the 25th of April, but after testing them year after year I became more and more satisfied that early setting out is a desirable thing. When we are dealing with living things, for instance as we had Mr. Darling here with six or seven colonies, the conditions of the colonies sometimes vary so much we have to be very careful about coming to a conclusion, and where you would have only six or seven colonies taken and perhaps tested for a year or two, I say that that may be of very little value. But as soon as the bees are able to fly out and get a good fly any time in March I always set them out. I remember in "Gleanings" last year Ernest Root was making the great objection that there was a snow storm in a certain year at a certain date. That didn't hurt them any; they were staying quietly in the hive and it was not doing any harm. The time when the

harm is done is when the sun shines brightly and the winds are cold, and when they go out they are chilled. So that I believe any time in March, when the weather is favorable to set them out. In other localities, the upper Ottawa for instance, I would not speak for but I think the true principle is to set bees out earlier in the spring than we have been doing in the past.

Mr. Heise: The remarks made with reference to clipping queens, both by our friend Mr. Pettit and Mr. Miller, possibly applies to where bees have been wintered inside. There are a number of us who winter outside and have our bees packed with leaves and we do not like to remove the packing before fruit bloom, about the 24th of June I generally calculate; it varies, of course, in different seasons. It is an easy matter for those who set their hives out of the cellar to get at them and clip the queens. It is not so easy for those of us who winter outside. On the other hand again it may be a peculiar thing but I have noticed time and again that in a prosperous colony in good condition and quite populous that you will find the queen easier than you will in a very small one. About the time of fruit bloom I prefer to do the clipping and then remove the packing as well.

(Continued next month.)

### "When Honey Disagrees."

I can not use honey ordinarily unless it is cooked—the fresher the honey, the more it requires. Boiled till a dark amber, like syrup, suits me best. I know many people so constituted. Last year I fixed a lot for a man who had denied himself all honey for 20 years. The best cure for the severe pain of honey sickness is warm cow's milk—fresh from the cow.—C. L. in Gleanings in Bee Culture.

## Thoughts and ...Comments ON CURRENT TOPICS

*by a York County Bee Keeper.*

"Severe weather will rule the rest of the winter, if it is a winter of average severity, for thus far it has been mild," quotes Dr. Miller in a "Stray Straw" in Gleanings, Jan. 15 issue. While the weather up to date (Feb. 14) in this locality might not properly be called "mild" yet I feel quite sure that it has been exceptionally favorable to bees wintering outdoors. Very few cold snaps, and none of them of any duration to speak of, a fairly equable temperature prevailing most of the time with very little high wind.

Of course we may get plenty of severe weather yet, but then it don't do to borrow trouble, and again I have an idea (it may be a foolish one) that a long continued cold snap early in the winter is more trying on bees than if the same should occur later in the season, say the latter part of February.

To be sure, the bees have not had a cleansing flight as yet, but as these 'cleansing flights' have been so few and far between for the last few years, have little anxiety on that score. Anyhow if I had "my own way" about bees flying in the winter, the best I would ask for would be for a flight late in November and then another in the latter part of February or thereabouts. With such favorable weather for outdoor wintering, have been almost wishing that the hundred colonies in the cellar were outside too. As this is my first venture in cellar wintering naturally I feel dubious as to results.

### BEE-KEEPING: NORTH AND SOUTH

Under this heading H. E. Hill, a former pupil of J. B. Hall, now editor of the American Beekeeper, contributes an interesting article to the December Review. Mr. Hill contrasts the advantages and disadvantages of the north and south from an agricultural point of view. Among other things he says: "The winter problem (in Florida) is necessarily indifferent; though neglect and carelessness are hardly less fatal in Florida than in the north. Weak and queenless colonies readily fall a prey to ants and the wax-moth. Indeed the strongest sometimes do. Mr. Hill can store quantities of comb honey in the fall without fear of deterioration. In the humid atmosphere of South Florida it would most likely become worthless as a merchantable product within a week after being taken from the hive. Mr. Hill can store his extracted combs in an open shed from season to season. In South Florida they would be destroyed within a very few days by the moth larvae. Here the webs of the destroyer may always be seen during the summer in combs that have remained off the hive over night, as they sometimes do during the extracting season. Mr. Hill also claims that the bees consume vastly more stores in Florida than here in the north, by reason of the continued activity; the same cause being also the means of reducing the longevity of the queens, a queen in Florida rarely retaining her prolificacy beyond the second season. It would seem by the foregoing that the south is not altogether a land of sunshine, from a bee-keeper's standpoint.

### DEATH OF J. A. MARTIN

Speaking of the south brings to mind the death of that popular contributor

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to agricultural literature, Mr. J. H. Martin, better known as " Rambler." Mr. Martin went to Cuba about a year ago to write up a series of articles for "Gleanings." He secured a few bees and so rapidly increased them that at the beginning of the honey flow in Cuba he had, I believe about 300 colonies. In a short obituary notice in "Gleanings" it is stated that he had been working very hard securing a crop of honey, when he contracted a fever which in the end proved fatal. His bright, racy writings will be greatly missed by a host of friends. However it is only another reminder of how frail mortals we are.

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 A. I. ROOT IN CUBA.

Early in the winter the Root Co. sent 500 colonies of bees to Cuba. As reports came to Medina stating that the bees were "just rolling in honey," Mr. Root, sr. once more contracted "bee fever," and at once set off for the sunny isle. In Notes of Travel "Gleanings," Jan. 15, his description of the country and climate is so pleasant as to almost cause one to have a longing to be there. Just think of it, while we are having snow and ice, there they are enjoying balmy weather, with flowers in bloom and the bees busy gathering pollen and nectar. But I suppose if we cared to carry the comparison further, much in the line of what Mr. Hill has said in regard to Florida, would also be applicable to Cuba.

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 SCARCITY OF FUEL HARD ON THE BEE-KEEPER.

At least such is the case in our vicinity if basswood is counted to be of value to the apiarist. While we have only been get-

ing a crop of basswood honey about once in five years, this fifth year crop nevertheless is quite acceptable. The prevailing scarcity of fuel has led many farmers to sell off their bush by the acre. This of course means the total destruction of all kinds of timber on these areas, and while it is unpleasant to think of, it is however quite true, to say that in the course of a few years basswood will be almost an unheard of thing in the thickly settled portions of Ontario. This condition of things is almost on a parallel with the beekeepers' and Alfalfa in the western States. Experiments conducted at the agricultural colleges of Utah, Kansas and Colorado, have demonstrated beyond a doubt that alfalfa cut when it is just coming into bloom is of greater feeding value than if allowed to stand longer; while an extra cutting is secured by harvesting at the early stage of bloom. This verdict will be a hard pill for the Western apiarists to swallow, but if the rancher can get sufficient help at the right time, it is not likely that he will take into consideration the wishes and interests of his bee-keeping neighbors.

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 HONEY EXCHANGE.

While the spirit of organization is in the air and is still being fanned by the different bee journals, a word in connection with the subject may perhaps not be out of place. In conversation with some friends at the Barrie meeting, as well as with others since then, have noticed that some seem to be under the impression that in case they should join the Honey Exchange they would be in duty bound to send their honey to that organization to be disposed of,

and that they thus would be deprived of making private sales if opportunity offered. If such is the case I do not understand it so. I think it would be the desire of the "Exchange" that each member develop the home or other markets in any way in their power, provided of course, they did not sell their product at a price below that agreed upon by the association.

On this phase of the question the Exchange would be a benefit to the bee-keepers, even if they did not send their honey to any central depot, as they would at all times know the prevailing price of honey, and would thus govern themselves accordingly.

## FOUL BROOD

R. F. HOLTERMANN

After some twenty-four years intimate connection with bee-keeping and having been associated with it in all its phases, the production of honey, the sale of large quantities of honey my own production and that of others, the manufacture of supplies, queen rearing and journalism, I unhesitatingly state that the subject of foul brood and how to quickly stamp it out is of the deepest importance to everyone engaged in any of the above branches of the apiary.

When writing, it is not because Brant County has particularly suffered, for Brant County has so far, I believe, proved itself singularly free from the disease. But we must approach it from a Provincial—yes, more—a Dominion standpoint, and I would go so far as to say let the Dominion enact a law which will prohibit the importation of bees and

queens from every state and county that has not a foul brood act, and every aparist who cannot send with his colonies and queens a clean bill of health. Surely the bee-keeper has a right to be protected from contagious disease as fully as the breeder of any other kind of stock. Surely the country has a right to have protection for so valuable an insect as the honey bee, valuable as a fertilizer of blossoms which will be instrumental in producing crops to the gardener, fruitgrower, dairyman and farmer at large.

How shall this question be approached in a kindly spirit. It must be done without fear or favor. Bee-keepers are governed and swayed to much by feelings, personal liking and perhaps sometimes the lethargy which shrinks from attack, which is sure to be invited when one seeks to lift out of a beaten path. But such a motive is not only selfish but it is often the sacrifice of one's manhood and even honesty and taking in exchange the coward's place. No great wrong and possibly no little wrong has ever been righted by such men. Nay, more, they become the responsible agents in hindering the cause.

What I want to invite bee-keepers to do is to take hold of this question and deal with it on its merits.

Personally I have nothing against anyone connected with the foul brood matter, but were I to remain silent because it may not suit some of my friends, I would be acting in the way in which in my estimation others have acted.

When President Evans in the last annual address pointed to defects in the foul brood treatment he only voiced the sentiments of many others. For several years there has been a gathering storm and that storm will not down. Here and



there is deep dissatisfaction either with the act or the way in which it is enforced. President Evans also made his remarks in just the right place—his address.

Acts are rarely perfect and after years of experience we need not be surprised if the Government can see improvements, but the Government justly expects such recommendations from bee-keepers', and the association to which it contributes its money, and for which a discerning and critical public will hold it responsible to supply it money only so long as it is useful.

As a result of what President Evans and others on the floor said about foul brood matters a committee was appointed to see if it would be advisable to change the act. We know that the foul brood inspector has never from the day he took office lived up to that act, and every bee-keeper whom he visits could justly have prosecuted him for himself breaking the act—surely an astonishing position for a Government official. Now, I am not saying that the act is right. To tell the truth I am partially with the inspector in the practical value of the instruction of the act. But to what I want to draw attention is the fact that a committee knowing that what is stated above is true, and has been for years, a committee of the Ontario Bee-keepers' Association brings in a report that "the act is all right", and when the highly officered association, which has twice the number of officers there is any need for, and that there are in organizations with a larger membership. Officers who have had their expenses paid year after year to the meeting, when the same money might be used to increase the grants of the local associations and infuse more life into them.

If this report is right and the act needs no amending then the Ontario Bee-keepers Association, and particularly its executive officers, must be in a lamentable condition to allow the inspector to so carry out the act. Let me say that in my estimation the act requires amending and there are things in the act at present not carried out which should be.

Again foul brood should not be left to be treated by bee-keepers during the robbing season, such only enhances the danger of spreading the disease. Our present inspector could be the best man we have were the act in proper shape and he MADE to live up to it. He cannot be everywhere during the honey season. What shall we do? Think of stamping out foot and moth disease by skipping here and there leaving imperfect work behind. Thinking of smallpox, scarlet fever, diphtheria, etc., in the same light we would say it was a waste of money, and the persons who endorsed such action knowingly very wrong.

When the act was passed I doubt not, the Ontario Legislature and the ministers knew not over how wide an area the disease was distributed. What must we do to help the inspector out, to help bee-keepers out, and to guard the interests of the province and Dominion? We must act promptly and energetically. The assistant inspector, well, how is he situated? A Government post office clerk on a mail train, whom I believe, makes a daily run, or if not is so tired that he has to rest between. He has also a large apiary, a good man, but does it show good common sense, does it show ordinary business ability to appoint such a man sub-inspector? Let bee-keepers judge. What it appears to me we want is a sub-inspector appointed in

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**BRANTFORD - CANADA.**

Editor, W. J. Craig.

MARCH, 1903.

**EDITORIAL NOTES.**

"A committee from the County Simcoe Bee Keepers' Association consisting of the President, J. C. Morrison, Vice-president, Jas. Martin and Mr. Alfred Carscadden waited on County Council on the 28th. of January and presented the claims of their Association for a county grant. In response to their request a grant of \$50.00 was made"

Good for Simcoe—this is certainly an incentive to other Associations to go and do likewise and to other County Councils to act in the same generous spirit. We understand that Simcoe Association purposes sending a man from each Township to inspect all the apiaries in his township during the month of May and the first weeks of June and report all diseased Apiaries to the Province Inspector.

A meeting of the bee keepers of Brant and adjoining counties has been called for to be held in the council chambers, Brantford, on Tuesday evening and Wednesday, Mar. 3rd. &

4th., first session to be held Tuesday evening at seven o'clock. The principal object of the meeting is to discuss the foul brood situation and the best means of dealing with it. Inspector Mc Evoy has been invited and we look for a valuable and largely attended meeting. The Minister of Agriculture Hon. John Dryden. will be present or represented, also Prof. Harrison, Bacteriologist of the Ontario Agricultural College, Guelph, who has devoted much time to the study of this disease and has made many important scientific discoveries in connection therewith. The Quebec and Dominion Governments have been asked to be present as legislation may be asked to prevent the importation of bees from districts that have no Foul Brood Act.

**Why I am a Bee-Keeper.**

The following paper was read by W. J. Brown at the annual meeting of the O. B. K. A.

First because of a natural fondness for honey, a fondness that never relinquished its hold upon me and I never expect that it will. Well do I remember when I was a boy how I used to rummage the wild bees nests and when ever one drop of sweet neclar made my heart glad, as I advanced to manhood my ideas grew also and I soon became the possessor of a box hive of bees.

My second reason for being a bee keeper was my early disposition to explore the mysteries connected with the the hive and honey bee. In these primitive days—primitive they were to me at least as I had not the opportunity of studing standard works on the honey bee and bee journals galore as you fellow bee keeper have to-day

yet every spare moment and every hour of my time that I could possibly spare from other pursuits was taken advantage of in the study of my little workers, thus adding to my pleasure and knowledge.

My third reason for being a bee-keeper was the pleasure of having pure "natures sweet" on my table three times a day the whole year round and of being able to treat my friends and neighbors and of hearing the hum of the bees in the apple trees and in the clover fields and elsewhere.

My fourth reason was the financial side, I had the idea at one time that there was more money in bee-keeping than in any other line of business on the face of this broad earth but I must admit that while my taste for honey is keen as ever and the desire as strong as it was a quarter of a century ago, and little yet affords me more pleasure than to treat my friends to honey and to hear the merry hum of those dear little bees. I must say I am slightly disappointed in my fourth reason for being a bee-keeper; true, with proper care and management on the part of the manipulator, there is money in bee-keeping, but for one who has made a pile out of it a dozen have made a failure.

For my part I have nothing to complain of in having taken it up as a pursuit, as I like the bees, I like the work, I like the honey and the money that comes in as a result of my bee-keeping—and now see brother Heise come along with his broad axe like a hewer in a lumber camp and make the chips fly.

### Spring Management.

The following paper was read by Mr. R. F. Whiteside at the annual meeting of the O. B. K. A.

If the roofs or gables of hives which stand out all winter have cracks through which snow drifts as it piles

up against them, it is well, about the first or second week of March, to examine them and shovel out the snow before it melts. If hives or clamps are completely covered shovel down to the fly holes or at least, to the bottom of the gables or eaves and so keep open while snow lasts as strong colonies are breeding and much more liable to become overheated than in January or February,

According to Ernest Root's experiments, brood rearing is much encouraged if bees are set out of the cellar once or twice in March for a day or two at a time; when we have nice sap weather; it affords them a cleansing, stimulative flight. It is not advisable to leave bees out for good until a few experimental hives, left out all winter, begin to gather pollen, say about April 15th.

When one has all the bees he cares for and swarming is not desired the top boxes may be placed on during apple bloom, two or three brood combs being placed in the super after shaking to be sure of the queen. Mr. McEvoy says, if one or two heavy combs are uncapped and placed in the super, it encourages the bees to store above. When zinc is used, it might be as well not to place it on until after the first extracting, being careful to keep all drone comb as far as possible from the two brood combs.

Baldrige, and I think also the Cogshalls, place only a few colonies above at first if colonies are weak, adding combs as the season advances. His stenographer tells me he unpacks during apple bloom and exposes the honey combs in dead hives if the live ones need feeding.

This year I was frightened by the two reports in our Bee Journal regarding the large amount of honey consumed during winter, so I spent about a week examining every hive. The first day one hive was found

completely starved and another on the verge, but afterwards none were found. However, it paid, as some would probably have starved if they had not been equalized and fed.

In any case it is well, as soon as snow is all gone, to clean out all dead and hopeless hives and expose the combs to be robbed whether the survivors need feeding or not; and the combs in said hives should be left an inch apart and uncovered to prevent millers. If top stories are placed on early care should be taken to stop all cracks and air holes and the winter cushions should also be left on. If any are weak, having say fifteen or twenty inches of brood, they should be placed in a hive having plenty of bees but queenless, or drone-laying queen; If none such are found open them up as though completely dead and have done with them.

The beeman who has out yards should have a few mailing cages in his pocket supplied with good candy or candied honey for caring for the above good queens.

If bees swarm out give them a comb of brood and also a comb of honey if needed. This trouble is also said to come from too much contracting in the fall. One fine April day a man had forty leave their hives seemingly on account of too small hives.

Spring is also a good time to kill ants, which also cause absconding. One beeman pushes a shovel into their hill and shakes it back and fourth making a wedge shaped hole into which he pours a pail or two of hot water. Save the water washing days and give them two boilers full a week until all are done. Turn over every flat stone and dip and dose it also. Move every hive and clamp too if you wish to make sure, and then, in a year like this, there will be enough left to perpetuate the species. Some use powdered borax or turpen-

tine to exterminate them. Sometimes they get into ten pound pails of honey if lids do not fit tightly and suspicious and in fact all tins should be examined before shipping if kept till spring.

To encourage week swarms Mr. Rogers used to place a large hot stone on the frames morning and evening but the game was not worth the candle, contracting and cushions will answer, but we should be on the alert, or the first we know those doubtful ones will cast a swarm. Some feed artificial pollen, ground rye or oat-meal, but Doolittle says they will appropriate a pollen comb if placed near the cluster, and he should know. One day a neighbor happened over and we were looking over the bees, A few of them seemed quite busy, and on closer scrutiny they presented a very ancient appearance, so much so that I remarked it. After some deliberation he said he has just come from Dixe's yards half a mile away and he was feeding artificial pollen and my bees were reaping the benefit.

Re uniting weak colonies, would say that it may sometimes pay if one of them is brought from an out yard, but not otherwise. Bee-keepers whose time is limited will do well to adopt all good short cuts, so if clipping is to be attended to it can be done when the top stories are placed. In order to make sure you are not putting the queen above the zinc, you should see her and then, having your clippers ready, the two jobs can be done at once.

I imagine a novice might occasionally hurt a queen by handling her by the wings or thorax. The monet receptacle however would obviate this. I like the looks of the small crocheted stick with a light rubber cord stretched across the ends of the "Y". Clip one wing this season, another one next and her head the next.

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If bees hang out before placing the supers enlarge the entrance to 2x6 if necessary, then have a tin with a fly hole 2 in. deep by 3-8 in. wide for contracting in winter.

Some use a shallow super for fruit bloom honey and place them over the deeper ones when clover yields. These also can be extracted and filled again with buckwheat honey and left on all winter. Root says that a single board hive with no cushion is more apt to dwindle than one thoroughly packed on the sides, and top.

Mr Doolittle takes three days to set out bees, commencing about 3 p.m. and setting one on every third stand each day. He has an outside door and a spring wheel barrow and uses smoke immediately on loading the hive or they will rush out and sting fearfully, when he smokes them in, he places a block to keep them in until they are set on the stand. I place a block over or stuff up the fly hole before I handle them and pass along and pull it out when done setting them out if I do not forget.

Mr Doolittle also moves the centre combs to the outside of the cluster every week after they commence gathering pollen and so has eight frames of brood for fruit bloom and a rearing colony for clover honey; but it does not pay to get them up so strong if fruit bloom does not yield surplus. He makes sure to always have plenty of honey in the hive. To busy farmers who keep from twenty to fifty hives would say do not do a tap to your bees in the spring if you can manage it so. If kept in cellar of course you must carry them out when the snow is gone, say April 15th.

To relieve the pain of a bee sting Grundig says strong salt brine rubbed to the wound is very beneficial.—  
B.K.

## Foul Brood.

BY R. F. HOLTERMANN.

Continued from Page 179.

a county or district to inspect at the right time. These inspectors can in many places inspect at once and at a suitable season. They not having far to travel can do so at less expense and they will if they are interested by having bees, be deeply interested in having the district clean. Let, wherever there is a county or district association, the association appoint the sub-inspector, but let the inspector be called in in case of a dispute with the bee-keeper as to the existence of the disease, and let the inspector be called in before the colonies are destroyed, unless the sub-inspector and bee-keeper mutually agree to destroy.

And above all let the act be amended to so read, and if the inspector is not to disinfect himself, let it be changed. I would favor this that any tool with which he examines cells should never be taken from the apiary in which he has inspected. Let us ask for a little more money if need be for a few years, it will be money saved in the end. Let us make a thorough work and have every colony in the country inspected in this year and the next. This convention at Brantford is partly to discuss this question. Let us have every bee-keeper we can there. Hon. Sydney E. Fisher, Dominion Minister of Agriculture; Hon. John Dryden, Ontario Minister of Agriculture, and Prof. Harrison, Ontario Agricultural College, Guelph, have been asked to be present, for this is more than a provincial convention. Come to the convention. Bring all that you can with you. In addition to the provincial management of bees will come up.

Brantford, Ont.

## Inspector of Apiaries' Report

During the season of 1902 I visited bee yards in the counties of Huron, Middlesex, Perth, Braut, Wentworth, Lincoln, Welland, Halton, York, Cardwell, Grey and Simcoe. I inspected ninety-one apiaries and found foul brood in thirty of them and dead brood of other kinds in many others which had been mistaken for foul brood. I also found several fine apiaries completely cured of foul brood that had been reported to be diseased.

The frequent showers that we had in the early and middle part of the past honey season kept the bees in their hives for hours at a time and this taking place when the bees had a very large quantity of larvae to feed caused a rapid using up of the stores, and as fast as the cells were emptied the queens layed in them and soon after that all brood chambers became full of brood, and as they were left in that condition with the bees being driven in from time to time by the rains which were followed by sudden warm spells, brought on the greatest rage of swarming ever known in the province of Ontario and created a great

demand for comb foundation, and some bee-keepers not having any on hand, and not expecting to get any very soon, used some old combs (that were saved from colonies that had died from disease) and spread the genuine article, a thing the same parties will never do again.

All old diseased combs should be melted and put through a wax press as that is the only kind of an extractor that will take all the wax out of old combs.

It would greatly improve the apiaries in many localities if their owners would use more foundation and melt a part of their old combs each year until they were all renewed.

While on my rounds through the province I was much pleased with the very generous treatment that I received from every bee-keeper.

WM. MCEVOY.

Woodburn, Ontario, Can.,

Dec. 16, 1902.

A very interesting letter from Mr James Duncan, of Mahitoba, is at hand, but is unavoidably crowded out this month. It will, however, appear in our next issue.

As a remedy for bee or wasp stings in the throat or mouth is given the following:—Take a teaspoonful of salt slightly moistened with water, and swallowed slowly; the pain and swelling disappear in a very short time. This simple means has saved many lives.—Leipziger Bienenzeitung.

## Temperature of .....the Hive

Controversies about bees hibernating in the hive in winter arise from time to time. Bee-keepers occasionally meet with instances of bees wintering safely in snow banks—the skep or box surrounded by snow for four or five months—and the bee keeper thinks that the bees must have been hibernating. Many bee-keepers have doubts about bees wintering alive in snow and declare that bees do not hibernate. It is never safe to be too certain about anything, but I think we can safely declare that bees do hibernate. There never was a bee, either worker or queen, that continued active throughout the winter in a hive in a temperate climate unless there were inactive hibernating bees to protect it from the cold. The conditions of hibernating animals in winter, when in the dormant state, have been carefully observed and are as follows:—A low temperature; the temperature of the animals slightly above their surroundings; loss of irritability and motion; a greatly diminished respiration and a corresponding decrease of circulation. These are the conditions; and the bees on the outside of clusters in winter are, in every particular, in the same condition as animals hibernating from cold. A bee may be frozen in ice for weeks, and still not be dead, but the bee is not hibernating, while the bee at the freezing temperature in air for over a day, if not dead, must be hibernating. A portion of the bees in a colony must hibernate and remain motionless if the other portion are to continue active during the winter. In a colony,

the proportion of bees hibernating to the active bees varies with the climate and also with the size of the clusters. The larger the clusters the smaller, in proportion, will be the number of hibernating bees.

The Rev. Mr. Raynor noticed that colonies with bees raised late in the fall did not winter well, and several bee-keepers after him noticed some defect in bees raised late in the season. It is just possible, however, that young bees do not hibernate well (as a rule young animals do not), and that a preponderance of young bees in winter is a disadvantage, as a preponderance of old bees in spring is a disadvantage.

Bees are bad conductors of heat, but they are good absorbers and radiators of heat, and if they had no means of preventing radiation they could not keep their heat within their clusters. Tyndall discovered in his researches on heat, that air mixed with aqueous vapour intercepted the passage of heat rays to a marvellous extent. Air saturated with aqueous vapour is a hundred times more resistant to the passage of heat-rays than dry air. The active bees in the cluster give off aqueous vapour and carbonic acid gas freely, as products of respiration or combustion; the bees make use of these products to preserve their heat, and they condense the aqueous vapour to furnish them with water to raise brood.

The warm, moist air from the active bees rises to the top of the cluster, but the bees do not allow the aqueous vapour or heat to escape. The cold bees in the top of the cluster condense the aqueous vapour and get warmed by the condensation. A pound of water in vapour gives back its thousand units of heat when it returns to water. The wet bees carry back the condensed vapour into the cluster and the so-called latent heat of the vapour is absorbed by the bees. Langstroth

always found the bees wet in their winter clusters, and he thought it an evil but when we come to see what the bees are doing we find that the water is a necessity and that bees could not raise brood without it.

Bees place their honey for winter stores above their clusters as the active bees in the cluster can readily get out and in at the top, but by no possible efforts could they make their way through the closely packed lethargic bees at the bottom of the cluster. When the active bees relieve the hibernating bees the active bees pour out in numbers and surround the torpid bees, and by transferring their heat to the cold bees enable them to move into the cluster.

Some preparation by the bees, filling themselves with honey, is necessary when going into the dormant state and some properties in the cluster favourable to hibernation must exist to keep the dormant bees alive. If all the bees in the cluster become torpid from want of food the bees will soon die, but if there is food for all, and a portion of the bees form a heat centre in the cluster, and keep giving off their products of respiration, the whole cluster of bees will keep alive and survive the winter. The heat given off by the active bees cannot reach the dormant bees at the bottom of the cluster, but the respiratory products can reach all the bees in the cluster and prevent their loss by radiation—as the odours of flowers protect the flowers from loss of heat. When bees condense their aqueous vapour in the cluster the remaining respiratory product (carbonic acid gas), must descend, being much heavier than air, and it also prevents radiation and will protect the bees at the bottom of the cluster from loss of heat.

Queenless colonies sometimes winter with but little loss of bees, and in spring may be strong in numbers. If

a queen with sealed brood be given to colonies in this condition they have been known to make strong stocks in summer. Should a queen, however, be given without sealed brood or young bees the queen would be of no use to the old bees, even should they accept her which would be exceedingly doubtful. It is therefore evident that it is the brood raised in winter that is the important factor in building up colonies in the spring and that a colony raising no brood in the winter will gradually die out in spring.

The bees will always raise brood in season and out of season, if their means will allow, in efforts to make the birth rate as high as possible above the death rate. They know something about the decline of empires. They built their empires before man appeared, and for aught we know to the contrary will continue building empires after man has disappeared. The bees and flowers were among the first to come and they will be among the last to go.

The so-called spring dwindling in colonies is owing to the bees not being able to raise brood, hence, to beekeepers the importance of knowing how to assist the bees in keeping up their population. The bees have no difficulty in keeping up their population in summer, the great difficulty is in winter and spring.

To raise brood in clusters the brood raising area in the cluster requires to be protected by a wall of packed bees, and the wall has to be thicker as the temperature is lower. If we assume that in our climate, in winter a two-inch wall of bees is necessary to surround a brood raising area, then a four-inch cluster will raise no brood. A six-inch cluster will give brood area of four inches and four clusters sixteen inches. A twelve-inch cluster will take the bees of four six-inch clusters and will have only half the radiating



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area of the four clusters, but it will have sixty-four inches of brood raising area; four times more than all the six-inch clusters, and sixteen times more than one six-inch cluster. Raising brood takes no heat from the bees. Wherever non-living matter, throughout nature, is being changed into living matter, heat is eliminated. When active growth is taking place in the chick in the egg heat is given off, and the incubator has only to prevent the too great loss of heat given off. When an insect larva commences to eat it commences to give off heat, and the more larvae the bees can keep growing in their cluster—the more nutrition and growth is going on in the cluster. A cluster fifteen inches in diameter equals in volume nine five-inch clusters, but the brood raising area or the heat generating area, is over thirteen times greater in the large cluster than it is in all the small clusters combined. The advantages of the large cluster must be apparent and they are founded upon facts not easily controverted.

The late Mr. Dadant gave as one of his reasons for adopting a large hive, that at the commencement of his bee keeping career he met with a case of a colony of bees in a large box (three times larger than the common hive), which he found upon inquiry had never been known to have been without bees for twenty years, although numerous colonies in small boxes adjoining could only exist for short periods. It was evident that the large colony escaped from whatever ills destroyed the small colonies, and Mr. Dadant, in his experience as one of the most successful apiarians of his day, never found that he had made any mistake in adopting a large hive. He never went into the hive-making business with a view to selling and trading in hives.

It is not the bees, but the bee-keepers that want small hives. Dr. Gandy says that if we put up barrels and kegs to catch absconding swarms the barrels will be first occupied. Swarming is mostly an effort of the bees to find a larger home, and the only way to lessen swarming is to give the bees a larger hive. Bees in temperate climes will never be able to compete with bees in tropical climates until they get more room to work.—A. W. Smyth, M.D., Donegana, in Irish Bee Journal.

**Bulk Comb Honey—Its Demand, Its Production Profitable.**

“Bulk” or chunk comb honey is a commodity very little known among Canadian bee keepers since the advent of the honey extractor and whilst to us production in this way would be a retrograde movement and very unprofitable the method has many advocates in the south among them Mr. H. H. Hyde who writes as follows in the Texas department of the progressive bee-keeper:—

A few years ago bulk comb was practically unknown, but to-day there is hardly a bee-keeper in the United States that has not heard of it and how it is produced. It is now the principal product of the south-western Texas bee-keepers. Its production is rapidly gaining ground not only all over Texas, but is gaining a footing in Nebraska, Colorado and Utah.

The demand from the consumers for this article is rapidly growing and is keeping far ahead of its production, and of this fact the bee-keepers are readily catching on. There are many reasons why it is gaining a hold with both the consumer and the producer and especially the former.

When he buys a can of bulk comb honey he feels sure that he is getting

a pure sweet just as the bees made it; he feels that he is getting full weight, and he has bought it at a less price per pound than he could have bought section honey. Then he has his honey in a nice bucket where the honey cannot break or lose out when cut in two and when he has eaten out the honey he has a useful pail left. These are some of the reasons why the consumer prefers bulk comb honey to section honey. I am talking of the majority of the people. Of course there are the wealthy who will always buy a limited quantity of section honey because it is high in price and has to them a fancy look.

Bulk comb is produced in either full bodies or shallow Ideal supers. If the former is used it is hardly practical to fasten in full sheets of foundation as the frames cannot be wired because we expect to cut the honey out, but with the Ideal frames we can use full sheets if we so prefer. Ideal supers and frames are preferred generally because they are not so large, are not so heavy to handle, they are nearer the right amount of room to give a colony at one time and they can be freed of bees much quicker than can full bodies.

To free them of bees we simply smoke down between the frames well and then pry the super loose and jounce it, when it will be found that most of the bees will fall out. They can then be stacked up and a hole left at the top, when in two or three hours time the last bee will have left the supers.

Then again the supers and frames are nice for extracted honey should the bee keeper in any event desire to so use them and in fact in putting up bulk comb it requires about one-third extracted honey with which to put the comb up.

In packing bulk comb we cut out the comb nicely and place it in the cans, and afterwards pour in extracted

honey to cover the comb and to fill up the crevices, and in this about one-third extracted honey goes in, and it must be remembered that this extracted honey goes in at the comb honey price. It has been found both practical and profitable to produce both comb and extracted honey in the same apiary, and in fact on the same hives at the same time, for many have found that it pays them to have one super of combs on top of the regular brood-nest so that the queen may fill it with brood before the honey flows, if she likes, and when the flow comes these supers catch the first nectar, and as soon as the flow is on and the bees have commenced to secrete wax this super of combs is lifted and the empty frames of foundation placed between them and the brood, which is the most effectual way of baiting bees into the supers, and it will be found that where colonies are so worked swarming is kept in check if not entirely prevented, the queen is left in entire possession of the regular brood nest and by the time the flow is over the brood will have hatched from the shallow super of combs and the bees will have filled it with extracted honey, and this is just what we will want in putting up our comb honey, as we have already shown that at least one-third the honey must be extracted with which to pack the comb. It has been demonstrated time and again that bees will store all the way from 50 per cent to 100 per cent more honey when worked for bulked comb than they will when worked for section honey, and many believe, the writer included, that where the bees are worked as outlined above that nearly if not quite as much bulk comb honey can be produced as could be produced of extracted honey alone, and especially does this hold good where localities have fast flows of honey,

fill up which a great amount of wax is always secreted whether there are any combs to build or not.

We will now show the relative cost of bulk comb to section honey. When we buy bulk comb supers and frames we have bought them to use for years. When we buy sections they are for only one season's use, whether they be filled with honey or not. Then we have to have costly separators, followers etc., that soon give out to be replaced. When we go to ship we have to have costly glass front shipping cases and these cases in turn packed in crates for shipment. When we pack section honey we have to take lots of time and patience to scrape the sections. When we pack bulk comb we buy cases of cans and cut the honey out into them. When we get ready to ship we have to pay a high rate of freight on section honey and more, than the risk of having a good part of it badly damaged or destroyed all together. When we ship bulk comb we get a low extracted honey rate and have the assurance that it will go through as safely as if it was extracted honey. When we go to prepare supers for the harvest, all we have to do to our bulk comb supers is to scrape the top bars a little and fasten in the foundation, but with section honey we have to make up shipping cases and sections and spend a long time putting the foundation in just right. When the supers are put on, the bees go to work in the bulk comb supers at once and in a big cluster and thereby forgetting to swarm, but with section supers the bees have to be carefully lured and coaxed into the supers and when they get there they are cut off into twenty-four or more small compartments, which they have to try to keep warm, and to get them sealed to the woods we have to crowd the bees and thereby losing honey. By crowding we lose equally as much

honey as we do when the supers are first put on by reason of the bees being slow to enter the sections. Just how much honey is lost by the bees being slow to enter the sections, how much is lost by crowding and how much is lost by swarming I am unable to say, but it is considerable.

You may take the items in the production of the two honeys from beginning to end and there is not an item that is not in favor of bulk comb honey, except solely in the matter of price received, but friends, where unbiased men have tried the production of the two honeys side by side and carefully taken into consideration every factor they have invariably found that they can make at least 50 per cent more money producing bulk comb and many have placed the per cent much higher.

There is another fact, not one of the men who once quit section honey have gone back to it. We were ourselves large section honey producers several years ago, but have been converted and have disposed of most of our section honey supers and to-day have a large pile of them awaiting a purchaser.

You may say, I have no trade or demand for bulk comb honey. I will say that all you have to do is to produce it and offer it for sale and you will soon have a trade that nothing but bulk comb will satisfy. You may say, I will have to ship my honey and what then?—there is no market for this new product? I will say take your honey to the cities and offer it yourself and you will find a ready and appreciative market and one that will next year demand more bulk comb and the grocerymen will have to order their supplies from you. There is no question but that a market can be found. The bee keepers of Texas have found a market for more than they can produce, and I take it that the bee men

of other states have the same intelligence and the same get-up-and-get that the Texas bee men have.

The packages used in putting up this article are now most largely 3, 6 and 12 lb. tin friction top pails, that are put up in crates holding 10 of the 12 lb. cans, 10 of the 6 lb. cans and 20 of the 3 lb cans. There is also some demand for bulk comb in 60 lb. cans, 2 in a case, the cans having 8" screw tops. These are sometimes ordered where the buyer desires to put the honey into glass packages for a fancy trade.

In conclusion I wish to refute the statements made that the production of bulk comb honey was the old foggy way of honey production. I assure you that it is not and that it requires as much skill and as fine a grade of honey as it does for section honey. I also assure you that the consumers are behind this move and that it is only a question of time when the production of section honey will almost have disappeared.

Should there be any who read this that desire further information I should be glad to give it.

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### Very Little Foul Brood in Ontario Just Now.

WRITTEN FOR THE C. B. J.

Last season (1902) I examined ninety-one apiaries and found foul brood in only thirty out of the ninety-one.

Some may ask, "What about the other sixty-one apiaries, were they all clean?" Oh no, gentlemen, they were not. Several of them were in a very bad state with genuine "black brood." Some had large quantities of starved brood all through the centre of the brood nest, and in a few

others I found poisoned brood which was the result of some foolish men spraying fruit trees and bushes right in bloom time. I found several apiaries very clean and in grand condition, which had been reported to me to be diseased. Why were these apiaries suspected to have foul brood? Because they once had the disease.

The good work done by the Hon. John Dryden, C. C. James, Deputy Minister of Agriculture, and Professor Fletcher of Ottawa, has been of immense value to the bee industry of Ontario, because it was through their writings, and lectures and instructions to spraying committees that hundreds of fruit growers have been educated not to spray trees and bushes in bloom.

It is a waste of both time and materials for any foolish fruit-grower to spray in full bloom, and is sure death to the bees. I am pleased to say that a great change has come over our country for the better along this line, and that very little spraying is done of late in bloom time.

The disease is pretty well rid out of the Province now, and Mr. Gemmill is the man that the bee-keepers should give the credit to, because it was he that got the Foul Brood Act passed.

I have a few apiaries to inspect in Norfolk County, some in the County of Simcoe and a little work to do in Western Ontario, and some down in the East. I will get Mr. James Armstrong to go the rounds with me in the County of Norfolk the coming season, and we will put things in rights as nice as the flowers of May. I will also attend to the few other parts of the Province in good time.

WM. McEVROY.

Woodburn, Feb. 1903.