

The Canadian Bee Journal

Devoted to the Interests of Bee-Keepers

Vol. 17, No. 4.

April 1909

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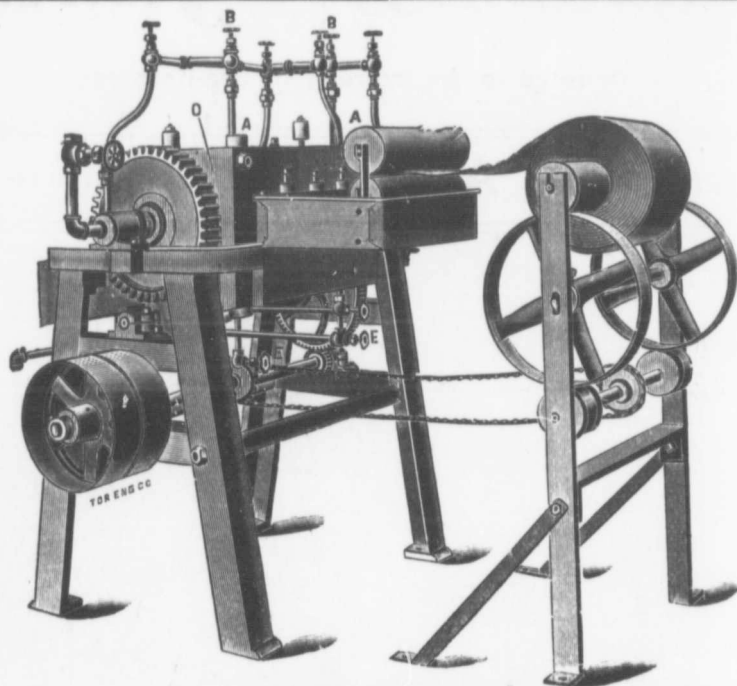


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The Canadian Bee Journal

Devoted to the Interests of Bee-Keepers

JAS. J. HURLEY, Editor

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Vol. 17, No. 4.

Dr. C. C. M

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April, 1909

The Canadian Bee Journal

PUBLISHED MONTHLY

JAS. J. HURLEY, EDITOR, BRANTFORD, ONTARIO, CANADA

Vol. 17, No. 4.

APRIL, 1909

Whole No. 530

Dr. C. C. Miller writes us as follows:

Referring to that first item on page 85, don't you for a minute go to supposing that it's the poison in the cappings that makes the trouble. If it were, why should it be worse with comb honey than extracted? Ought it not to be just the other way? Surely the cappings of the comb honey are not so much disturbed as are those of extracting combs. If there's as much poison in cappings as some would have us to believe, don't you think there's just as much of it in the cappings of extracting combs as in the cappings of sections? The cappings of comb honey are not disturbed in handling, but when the cappings are sliced off the extracting combs the bending of them ought to squeeze out the poison by the wholesale.

Possibly the propolis may be the culprit. When my assistant scrapes a lot of sections, it's very much like a case of a bad cold. The eyes and the mucous membrane of the nose are affected by the dust of the propolis, so that sometimes it is very troublesome. Others have reported the same thing, some being still more sensitive. It is conceivable that your friend's wife is still more sensitive, even to such a degree that it may affect the skin of the face.

Leon C. Wheeler (page 92) is sensible in his views, but a wee bit astray in one of his illustrations. He mentions my giving "a certain approximate time in the spring" for taking bees out of cellar, and thinks he should be two or three weeks later. I'm not sure whether I ever gave a certain approximate time by the almanac. I certainly couldn't say within two or three weeks of the time I'll take out my own bees a year from now, much less set a date for some one else. One year I may set them out a month earlier than another. If I have given any advice about it, it has been, I think, to go by conditions of weather. I've generally been more or less guided by the blooming of the soft maples. When they are in full bloom it's pretty safe to take out the bees. Wouldn't that

rule work about the same in your locality as in mine, friend Wheeler?

Best wishes, friend Hurley.

C. C. MILLER.

Thanks, Doctor. We agree entirely with you, both in your theory and argument, but we do not think that the propolis is the cause of the phenomenon—at least, we cannot locate the reason for thinking so. The symptoms under discussion manifest themselves when no scraping of the sections is done. We have suggested that the lady allow herself to be stung a few times on the hands and face. It is our belief that inoculation would put a stop to the cutaneous irritation.

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Mr. George Ott, of Arkona, has sent us a long article descriptive of the early days in Ontario when he was a boy. The article is very long, and we must ask to be excused the printing of it at this time. It is indeed very interesting from many points of view, but we fear would not be of general interest to our readers, who want information on bees. Mr. Ott says his grandfather moved from Pennsylvania before he was born, or close on to one hundred years ago, and brought with him two box hives. The hives were placed in a large sack—one at each end—and thrown over the back of a horse, and thus the journey was made to what is now called Port Colborne. Bees have been with the family ever since, and George has been raised among them. He has now reached his four-score years and two, and takes particular delight in recalling the past. He writes interestingly of his boyhood. Hunting all kinds of game—deer, bears, wolves, coons, etc.—

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in which he has experienced many triumphs. The girls of those days went out to the fields in bare feet and worked like real men. No wonder Canada has produced a sturdy manhood, with mothers such as these. To Mr. George Ott we extend our thanks and best wishes.



Mr. Chalmers, in his "Observations" in this issue, advances some good reasons for his quarantine station. It is quite certain that where foul brood is known to exist in the fall, and allowed to go over, those diseased hives should be carried to an isolated spot before the bees begin flying in the spring, and the cure applied in this isolated position. All danger of spreading in the spring would thus be avoided. Of course, this is not applicable to all bee-keepers. It applies with special force to those small, scattered apiaries in the hands of those who are not competent to properly handle them. Mr. Chalmers' "field day" idea has a very attractive look. It would have great educative influence if the bee-keepers could only be induced to attend. This matter will certainly bear discussion. We regret to record an error in Mr. Chalmers' "Observations" last month on page 105, where he asks Mr. McEvoy if there would not be danger from cells of bee bread in those combs which had been "wintered" with honey, etc. The word "wintered" should have read "moistened."



The C.B.J. extends congratulations to Mr. Morley Pettit on his recent appointment. The Ontario Government has placed him at the head of the Apicultural Experimental Station at Jordan. He has also extensive inspection work. Mr. Pettit comes well recommended. He was practically born among the bees. In his day his father was one of Ontario's most successful bee-keepers. Here's hoping that he will make good.

Mr. Burton N. Gates, of Clark University, Worcester, Mass., has kindly sent us the following brief notice of the death of Eugene L. Pratt, better known to bee-keepers as "Swarthmore." A more extended reference will be made next month:

I have just heard of the death of Eugene L. Pratt, known to bee-keepers as "Swarthmore," formerly of Swarthmore, Pa. After a brief illness from pneumonia, his death occurred March 11. He leaves a wife and daughter.

You, of course, know of his publications and his trip as lecturer in England and Europe last summer. He had a special commission at the Imperial College, in Austria, where he gave a course in bee culture. In America he has often toured.

In his death, apiculture has lost one of her most prominent investigators. His work was entirely along original lines of research, one thing which is the most needed in the science of apiculture to-day.



We have a letter from our friend Byer. He has a loaded shotgun for ye naughty Editor. At the risk of being shot down at sight, we will say that Mrs. Byer and the little ones were the best part of that picture. As a mechanical production of the engraver's art it looked good to us, and so took the liberty of using it. We are this month presenting our good friend in a manner more up-to-date, and will admit that he does get better-looking as he grows older. Just watch his next Notes. Bet ye a drone-cell to a queen that he will tell us that we are afraid to put our own face up alongside of his. In the meantime we'll shave off our moustache.



The C.B.J. extends its thanks to all those who have been showing such increasing interest in our work. Its contributors are steadily increasing, and as a result interest is steadily growing. Canada can boast of some of the most successful and capable bee-keepers on the continent. We hope to hear from a still greater number than in the past. We will welcome photographs of our readers,

or their bee-thing that yo We would esp spring reports condition, pros more generous of our readers Canadian Bee people sit up Canada's centu well.

Our old friend inspection work. older bee-keep regret this. He faithfully for a ellent work. E to cure foul bro own discovery.

traced the disea before the colleg He has sacrificed talents to helpin ure that the bee will not fail to with some fitting in possession of al the aid of his sor self more extensiv trust that he may the sweet nectar useful life. ❖

Queens Carryin

Newton, Canada, Three queens had three hives showed no other hives in Root, on the contra for in answer to a seriously question to carry disease th this country we w ages and doing a before introducing, more than one phas note in Canadian I Evoy explicitly st empty hives that I not need any disinf astounding!—D. M. Journal.

Nothing astounding Macdonald. We ha act ourselves.

or their bee-yards. Send us along anything that you may think of interest. We would especially ask for a number of spring reports—wintering results, spring condition, prospects, etc. With a little more generous co-operation on the part of our readers, and a little time, the Canadian Bee Journal will make some people sit up and take notice. This is Canada's century. It is our century, as well.

❖ ❖ ❖

Our old friend McEvoy has retired from inspection work. Doubtless many of the older bee-keepers of the province will regret this. He has served the province faithfully for a long period, and did excellent work. He taught the world how to cure foul brood by a method of his own discovery. He it was who first traced the disease germs to the honey, before the colleges became aware of it. He has sacrificed much of his time and talents to helping others, and we feel sure that the bee-keepers of the province will not fail to signalize his retirement with some fitting testimonial. Being now in possession of all of his time, and with the aid of his sons, he will devote himself more extensively to bee-keeping. We trust that he may long be spared to reap the sweet nectar of a well-spent and useful life.

❖ ❖ ❖

Queens Carrying Disease.—Inspector Newton, Canada, in his report states: "Three queens had been imported. Those three hives showed signs of disease, while no other hives in the yard did." Mr. Root, on the contrary, disbelieves in this, for in answer to a query he replies: "We seriously question whether it is possible to carry disease through a queen." In this country we would advise changing packages and doing away with attendants before introducing, but our ideas differ in more than one phase of this subject, as I note in Canadian Bee Journal Mr. McEvoy explicitly states his belief that empty hives that had foul brood in do not need any disinfecting in any way."—astounding!—D. M. M., in British Bee Journal.

Nothing astounding about it, my dear Macdonald. We have demonstrated the fact ourselves.

Would you advise me through the C. B. J. as to the best kind of soil for growing alsike clover for seed. I intend to move my bees to better pastures this spring, and would like to get in a locality where alsike seed could be grown with profit. I believe in getting in as good a locality as possible and then doing my best to make it still better.

Galt, Ont.

H. D. McINTYRE.

Avoid light, sandy soil, also heavy clay, or low lands. The best alsike-growing land is clay loam not too rolling. Such land as that in the northern part of Brant County is good. We are informed by an old and experienced farmer that such land as that around about St. George is ideal for your purpose.

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I think my subscription to your journal expires this month. As I do not want to do without it, I am enclosing one dollar for my subscription for 1909. I winter my bees outdoors in rough boxes, packed with chaff. I have been fairly successful with this plan of wintering, but have considerable loss on warm days in March. I keep the entrances shaded, but the bees occasionally insist upon coming out, and a good many of them get lost in the snow. I would like to know if there is any way of preventing their loss. Wishing the C.B.J. every success, I am, yours truly,

GEO. E. WEBB.

[Thanks for your remittance, Mr. Webb, and your kind appreciation of the C.B.J. The difficulty you refer to is one that is experienced by all of us in Canada. If you have the entrance shaded you are doing all that can be done to prevent the trouble. In this respect, however, we think you have the advantage over the man who winters in the cellar. The difficulty is not likely to be so great with you as with him. As a matter of fact, we do not believe the loss of bees is so great as is sometimes supposed. We have watched the matter very closely for several springs past—we winter as you do, outdoors—and we have never had a hive that dwindled down from this cause. Bees wintered outside do not rush outside as much as those removed from the cellar. If your hives are all queen-right, with plenty of food and some pollen, you need not worry. After the first of April they will increase fast.—Ed.]

EARLY SPRING INSPECTION

Mr. McEvoy Discusses the Question and Submits U. S. Inspectors' Opinions

In the C.B.J. for March, 1909, Mr. Chalmers asks if I shook bees off diseased combs on Friday evening, which evening by the day of the week would I give them their second shaking? Tuesday evening is the evening. When I shake the bees off the diseased combs on Friday evening I want them to remain on the starters Saturday, Sunday, Monday and Tuesday. Four full days is the time that I always advocated, because I found that where colonies were in a horrid state with foul brood, that anything less than four full days on the starters before I shook the bees the second time did not cure every case. I am very thankful to Mr. Chalmers for calling my attention to this, as I did not intend to have the little combs made out of starters during the four days taken out in less time. In that same article it will be seen in two places what I meant. I said, "Let them build comb for four days," and in the line below it I repeated it by saying, "The bees will make the starters in comb during the four days." Mr. Chalmers asks another question, and says that he has some nice combs which have been over foul brood colonies, but they are wet, and how are they to be made dry. If these are white combs and **never had any brood** in, wash them out well with a spray pump and then put them in the extractor and extract the water out and hang them up until dry, and then use them on any colonies you wish. If any of the white combs have pollen in, it does not matter. After these white combs have been washed out and hung up until dry, I will stake my life that they cannot give foul brood to any colony. I have had many thousands of nice white combs saved and used. Where any white combs had brood in them, make all such into wax, because in some dark cell a dried crust of foul brood might not be seen by

the bee-keeper, and if missed it would give the disease as soon as that cell was filled with honey and the honey from that cell fed to the brood. Any person with fair eyesight can easily see if a white comb ever had brood reared in it. Mr. Chalmers, like Messrs. F. A. Gemmill, J. B. Hall and myself, uses plenty of upright wires in wiring his foundation into the frames, and has a choice lot of perfect combs. Every super full of white combs properly wired is worth two dollars, and why should they be destroyed if they never had brood in?

At the Brant Bee-keepers' Convention, which was held January 28 and 29, I read a paper, asking "What shall be done with foul brood colonies found near valuable apiaries in early spring?" I will here quote the following lines from my article, which are as follows:

"The most disease is spread from apiary to apiary in early spring through bees robbing diseased colonies. And to attempt to cure early in the spring, so as to prevent the spread of the disease just then, would be too costly. What then? Get all your neighbors diseased colonies destroyed? Oh, my, no! This would not be a neighborly act, and should not be done where people are willing to cure. Well, what then? Allow these diseased colonies to stay there until curing time in the honey season, and let your bees go and rob some of these foul brood colonies and cost you the loss of hundreds of dollars? Would that be right? No, positively No! Now there is an easy, safe and profitable way out of this state of affairs, and that is, get these colonies inspected early in spring, and if found to be diseased and near fine sound apiaries, have the inspector help to move these diseased colonies to a place of safe distance from all bees and leave them there until cured."

Just as soon as I finished reading my paper, Mr. Sibbald and Mr. Byer very sternly opposed me. Mr. Sibbald said that the disease could not be told in early spring. I replied that I could easily tell it then. Mr. Byer said that the cells would be full of honey then, and that the disease could not be seen. Mr. Sibbald said that he would not allow any

man to inspect in early spring. I told of expected apiaries in early spring inspector could in early spring the way Mr. Sibbald was pleading to inspected in early colonies moved a valuable apiaries ruined through apiaries robbing of their diseased on Mr. Sibbald a would rather have left near his api moved a safe distance I pressed him for "Be honest, now would you rather colonies left near you or moved away?" answer my question more was said just noon this was brought Anguish, Lambeth, inspection, and his Mr. Fearman, York Mr. Howard, Lynch Cainsville, all spoke ner, urging early twice to the President but he did not. have the inspection the 15th of May and and at any time by dates by applying for was considered to be the one moved by Mr. Anguish's motion Mr. Craig's was put When the Canadian February came to his Craig's resolution was good it, and then I not press Mr. Anguish would have been carried early inspection. Since to Mr. N. E. Fr.

man to inspect his colonies in early spring. I told him that it was the suspected apiaries that I wanted inspected in early spring. I also said that the inspector could use judgment in inspecting in early spring. I was surprised at the way Mr. Sibbald opposed me when I was pleading to have suspected apiaries inspected in early spring and get diseased colonies moved a safe distance away from valuable apiaries, so as not to get them ruined through the bees from the sound apiaries robbing the foul brood colonies of their diseased honey. At last I turned to Mr. Sibbald and asked him which he would rather have—the diseased colonies left near his apiary in early spring or moved a safe distance away until cured? I pressed him for an answer, and said: "Be honest, now, be honest! Which would you rather have—the diseased colonies left near your apiary in early spring or moved away?" Mr. Sibbald did not answer my question, and, of course, no more was said just then. In the afternoon this was brought up again. Mr. Anguish, Lambeth, moved for early inspection, and his motion was seconded by Mr. Fearman, York. Mr. Taylor, Paris, Mr. Howard, Lynden, and Mr. Shaver, Cainsville, all spoke in a very stern manner, urging early inspection. I called twice to the President to put that motion, but he did not. Mr. Craig moved to have the inspection work done between the 15th of May and the 15th of August, and at any time before and after these dates by applying for it to be done. This was considered to be about the same as the one moved by Mr. Anguish, and then Mr. Anguish's motion was dropped and Mr. Craig's was put and carried.

When the Canadian Bee Journal for February came to hand I saw that Mr. Craig's resolution was not as I understood it, and then regretted that I did not press Mr. Anguish's motion, which should have been carried by 5 to 1, for early inspection. Since then I have written to Mr. N. E. France, the Inspector

for Wisconsin; Mr. R. L. Taylor, Inspector for Michigan, and to Mr. W. D. Wright, one of the Inspectors for New York State, and asked for their experiences. I received very valuable replies from each of these great experts, which I now enclose for the C.B.J.

Mr. Chalmers' proposal to have diseased colonies quarantined, instead of allowing them to remain near valuable apiaries until cured, was one of the best things ever brought up in the Ontario Bee-keepers' Convention.

To inspect all suspected apiaries early in the spring before bees commence to rob, and then move the diseased colonies a safe distance away from all bees and leave them there until cured, is a thousand times better plan than getting the apiaries inspected between the 15th of May and the 15th of August. Inspection work should be commenced very early in the season, before robbing gets started, and be continued until the season closes.

WM. McEVOY.

Woodburn, April 10, 1909.

Inspector N. E. France's Opinion

The old saying, "A stitch in time saves nine," often proves true. I have been State Bee Inspector now for twelve years, and each year I find my early trips inspecting affected apiaries, and preventing the exposure of any infected thing in or near the apiary, many times saves the State my expenses of long trips, also saves many apiaries from danger of total ruin, had I delayed the early inspecting. I find the first of April none too early to quarantine poorly-kept, diseased apiaries. Warm spring days, bees are looking for any chance to rob other hives, and if but one diseased comb is left carelessly exposed it may take all summer, with quite a heavy loss, to overcome that one spring day of robbing. Last spring, one place where few colonies had died of disease, the owner had placed the frames with infected honey along his picket fence near his other hives, for his bees to take the honey to their hives. Well,

when I got there next day the diseased combs were cleaned of all honey, and I traced many robber bees from two other large apiaries. Result would have been death to both those apiaries, only that the owner and I at once straightened up the premises, and as fast as a colony showed first sign of disease it was at once treated. We saved the bees, but lost larger part of a valuable honey crop. Mr. Wm. McEvoy, of Canada, has been my best instructor, and I am pleased to say he well knows the value of this early inspecting of apiaries. I prize his writings as with authority.

Yours truly, N. E. FRANCE.

Platteville, Wis., March 25, 1909.

Inspector R. L. Taylor's Opinion

In combatting foul brood, it is important to consider its nature and the way in which it is disseminated. First, it is to be borne in mind that it is contagious—not infectious, floating about in the air, something we cannot guard against—but is spread by contact, by touch. It is, therefore, a tangible thing, something we may put our hands upon and therefore hopefully combat.

In order to fight this disease effectually, it is of the first importance that we get a correct notion of the conditions that favor the contact that is effectual in transplanting the plague to new soil. Colonies already stricken are the store-houses of the deadly germs. The resulting infirmity of the colonies invite the attack of vigorous ones—the odor directing them unerringly to the place of their prey, over which they may be seen watching day after day, expecting the time when the final attack may be safely ventured, just as the crows keep a watch on the ailing lamb, that they may take prompt advantage of its first helplessness.

It behooves the apiarist, therefore, to study well the times and seasons when healthy colonies are most likely to make their attacks, as well as when diseased colonies are apt to be in the most desperate condition and the least disposed to

make a defence against robber bees.

It is well understood by all experienced bee-keepers that colonies in good condition, if unable to get honey from the flowers, are on the lookout for it in other places, especially when they have once learned that other sources sometimes furnish a bountiful supply. This knowledge is soon obtained in neglected apiaries, where foul brood has secured a foothold, since in such a case an educational experience of an undoubted minus value is readily and quickly obtained by the bees.

The seasons of dearth of nectar in the flowers, which serve to cultivate this illegitimate foraging, are not infrequent in this latitude, and may be looked for at almost any period of the warmer half of the year: they are common during fall and mid-summer, when danger from foul brood should be continually in mind; but it is in the spring-time that these seasons are certain to occur, and at the same time are much the more dangerous—not more dangerous because the dearth is greater, but because colonies afflicted with the plague are in a much more defenceless condition at this season of the year. By whatever plan diseased colonies may be wintered, the winter goes hard with them; a large per cent. of them are sure to perish utterly, and a good share of the rest are so depleted in numbers and disheartened in condition that they have no inclination to make any show of resistance to the forays of strangers. If intelligent oversight is neglected, with the first warm days of spring robbing begins, quiet enough at first, but before the job of robbing is completed, if there are several weak colonies and the weather becomes quite warm, it will become general and noisy enough, and the results will be deplorable. There has been the "contact" necessary to widely transplant the deadly germs, not only into the healthy colonies of the same apiary, but also into those of the neighboring territory.

What is the dissemination of this disease is by far the most serious of the year, therefore early and thor-

Lapeer, Mich

Inspector W

To permit robbing to continue is reprehensible. Any danger from robbing, of course, bees are not so sensitive to early in the year, and then in danger of being taken by the inhabitants of the same and no danger exists from flight until the honey from the one or two moribund where foul brood is, there will be the surrounding area robbing, if permitted other source, or a This foul brood the robbers will be colonies just in time nurse bees to the pagating the disease there is more brood than later, and foul in evidence the following. Therefore, I deem it in such territory to be on the alert to possible all robbing apiaries.

Altamont, N.Y.

Mr. Gemm

I was not at the convention held in 1908. Instances would not permit me to have since learned of the proceedings, and was glad to see an effort had been made by some of the members

What is the remedy? As respects the dissemination of foul brood, spring-time is by far the most critical time of the year, therefore the "first aid" must be early and thorough inspection.

R. L. TAYLOR.

Lapeer, Mich., March 24, 1909.

Inspector W. D. Wright's Opinion

To permit robbing among bees at any time is reprehensible, and doubly so when any danger from foul brood exists. Of course, bees are more inclined to rob extensively early in the season than at any other time, and all weak colonies are then in danger of despoliation by the inhabitants of more populous colonies in the same and neighboring apiaries. This danger exists from the time of their first flight until they commence gathering honey from the fields, often a period of one or two months; and, furthermore, where foul brood is prevalent in a locality, there will be more damage done to the surrounding apiaries from this early robbing, if permitted, than from any other source, or at any other time.

This foul brood honey brought in by the robbers will be stored in healthy colonies just in time to be dealt out by the nurse bees to the young larvæ, thus propagating the disease by wholesale, as there is more brood reared at this season than later, and foul brood is usually more in evidence the fore part of the season. Therefore, I deem it highly essential that in such territory the foul brood inspector be on the alert to forestall as far as possible all robbing from such diseased apiaries.

W. D. WRIGHT.

Altamont, N.Y.

Mr. Gemmill's Opinion

I was not an attendant at the last bee convention held in Brantford, as circumstances would not permit of my doing so. I have since learned of some of the proceedings, and was greatly surprised that an effort had been made on the part of some of the members to have the early

and late inspection of apiaries abolished, and the inspection of diseased apiaries only take place during summer, while a honey flow is in progress. This, to my mind, seemed very unreasonable, and I think my interest in foul brood matters always has been, and still is, for the benefit of the pursuit and those engaged in it.

At present, nevertheless, I feel it my duty to state that to abolish the early and late inspection of diseased or suspected apiaries, in order to secure the safety of healthy apiaries in such localities, when properly done by competent inspectors, would be a great blow to the foul brood law as it has heretofore existed. I am well aware of the fact that in the past colonies known to have been diseased by their owners were moved as early as end of March and planted almost within a stone's throw of a perfectly sound apiary, thereby causing an immense amount of loss before steps were taken to remedy the evil. This same has occurred in the fall of the year.

Now before concluding this subject I may as well mention the fact that at this present writing an apiary which a short time ago was badly diseased is about to be—if it has not already been—moved to within several hundred feet from my present location near London, and I am not aware that the owner of this apiary has a certificate that it is free from disease.

I certainly feel that Mr. McEvoy's suggestion in favor of early and late inspection is a good one under many circumstances, and that Mr. Chalmers, along with the others who supported Mr. McEvoy's contention, deserve the thanks of the bee-keepers at large for urging that even diseased colonies should be removed to a safe distance and cured during a honey flow or by artificial means, or later on properly placed on solid sealed (not partly sealed) stores, and cured for winter.

F. A. GEMMILL.

London, Ont.

Letters to the Editor

MR. McEWEN GIVES HIS PLAN

I have read with great interest the many articles I have seen in your Journal. I have often desired to write in regard to some of these, but have felt somewhat backward in doing so. However, as my name has been mentioned in the March number in reference to foul brood, I will attempt to give my plan of dealing with it. In the month of August, or early in September, pick out healthy colonies and put on supers of foundation (or drawn comb preferred) that has never had brood in, and which are perfectly dry. Feed sugar syrup till all is capped. About the middle of October choose an evening that is not too cool, so that the bees can get safely into the hive. Take the diseased combs and put them in a boiling vat. Put a sugar sack or anything that is large enough over the hive you intend to winter them in, and put on the cover. Next day raise the cloth to find where they are clustered. Now look at those bees every day, for they will starve if you neglect them too long. As soon as you see a dozen or two drop from the cluster, give them six or seven combs of sealed honey. Go also to one of your healthy colonies, and take out a card that has a good supply of pollen in it, so that they will have pollen to start some brood in the spring. The card that has the pollen in will do for the seventh card. Six days is the longest I ever had a colony to hang and stand the fast, and I have yet to experience my first failure by this plan. I have never found that starving bees in October has any bad effect on their wintering well. Should I have the misfortune of ever having foul brood in my yard again, I will do all my curing in the fall by the starvation plan. Mr. McEvoy's plan of putting them on the combs at once is a sure cure, but it must be understood that what Mr. McEvoy means by sealed combs is combs sealed to perfection—not one single cell

is to be left where they can unload their honey. I have found it easier to starve the diseased honey out of them than to get a lot of combs built to perfection. There is another subject I want to mention. Mr. Chalmers and Mr. Alpaugh recommend destroying all combs that have been used for surplus honey above foul brood colonies. I will have to take sides with Mr. McEvoy, as I do not hesitate to use such combs anywhere in the yard. Let the colony that put the honey in them clean them after being extracted. I boiled hundreds of nice dry super combs about twenty years ago. Had I asked Mr. McEvoy about those super combs, it is quite likely he would have saved me that loss.

On April 1st bees had a good fly. I lost three out of 209. Balance seem to be in grand shape.

[We grasp your hand, Mr. McEwen, and welcome you as one of the contributors of the C.B.J. We trust you will no longer hesitate to let us hear from you on any topic that is being discussed. Your plan of dealing with foul brood appears to be a very good one. It seems to be a combination of Mr. Alpaugh's plan and Mr. McEvoy's fall treatment. We are not surprised at your success with such a combination. While we would hesitate to recommend the starvation plan, as we do not like it, yet we will admit that, if conducted in the cool weather of October, it is not nearly so objectionable as in warmer weather, and when we condemned the plan we had specially in mind the period of July and August. We are quite satisfied that your plan would be an excellent one—if carried out strictly as you have described. Your spring report is an excellent one. We are glad to have this introduction to so successful a bee-keeper. Let us hear from you again.—Ed.]

THE BEES ARE NOT STUPID

Varnish stolen from new coffins at funerals in the village.—C.B.J., page 107.

Very likely, but the bees did not build either round cells or six-sided cells with it, as Rudyard Kipling charges them with doing. The grafting wax, also, that Bro. Columban, O.S.B., saw the bees

taking from a recently grafted building, but of their hive times putting needed—but When I graft have to tie clo to keep the be they will take when it gets the bees do use combs to mix ping the combs sometimes in se I have not lo of those winter lar, and all are

[Right you are to be congratulating report. Let —Ed.]

A BEGINNER

I am a new bee information. I live and the Georgian of any bees kept within thirty miles to get information bors. I always had a "kid." Three colony of Italian fall I had three s the cellar. Next alive. The next fi One of them only hive and all, and ed 20 pounds empt cellar. I took a about 20 pounds put it in a super weak hive. In le thought I would se taken. I found th all down. Last su three times, as did two supers on each that would stop tl

taking from some young apple trees recently grafted was not used for comb-building, but for propolizing the inside of their hive to make it air-tight, sometimes putting it in places where it is not needed—but the bees were not stupid. When I graft trees near my apiary I have to tie cloths over the grafting wax to keep the bees from removing it, and they will take the propolis from old hives when it gets warmed in the sun. But the bees do use the trimmings from their combs to mix with the cappings in capping the combs in brood chamber, and sometimes in second and third stories.

I have not lost one colony yet, either of those wintered outdoors or in the cellar, and all are strong.

ILA MICHENER.

[Right you are, friend Michener. You are to be congratulated on your wintering report. Let us hear from you again.—Ed.]

A BEGINNER'S EXPERIENCE.

I am a new beginner and anxious for information. I live north of Lake Huron and the Georgian Bay, and do not know of any bees kept north of me or any within thirty miles, so I have no chance to get information from beekeeping neighbors. I always liked honey, even when a "kid." Three years ago I got one colony of Italian bees by express. That fall I had three swarms. I put them in the cellar. Next spring I had but one alive. The next fall I had four colonies. One of them only weighed 27 pounds, hive and all, and I knew the hive weighed 20 pounds empty. I put them in the cellar. I took a Miller feeder and put about 20 pounds of sugar syrup in it, put it in a super and placed it on the weak hive. In less than one week I thought I would see how much they had taken. I found that they had carried it all down. Last summer they swarmed three times, as did all the rest. I put two supers on each hive, as I had read that would stop them from swarming,

but it was no stop. Last fall I put fourteen hives in the cellar. One of them weighed 24 pounds, one 25 pounds, one 31 pounds, hive and all. I tried the Miller feeder again, as I had two of them. One of them leaked a little, but I thought they would take care of it as fast as it ran out and so save themselves climbing up and down after it. But when I looked a few days after I found they were all dead. Too "stuck up" for that kind of treatment. The other Miller feeder they refused to use as the swarm did last year, so I took it off, took a piece of comb about eight inches square, poured some syrup on it and laid it on the frames. They came up at once for it. I have fed them all winter that way nearly as often as I fed the pigs. They are quite alive yet, April 5th.

King David said the ways of women were past finding out. It was not for lack of opportunity, as he had about as many wives as I have bees. I have tried hard to learn their ways. One swarm last summer did not alight when they came out; they gave me no chance to coop them at all, but made for the tall timbers. I ran after them across a ten-acre field like a dog after a wagon, but they raised over the bush, not so much as saying "Thanks for past favors." I read that the cellar should be kept at 45° for bees. I tried to keep mine at that by opening and closing the door between the furnace room and the cellar. Sometimes, before I was aware, it would be up to 50°, and I noticed some of the telephone back very quickly "We are here," if I gave them a little knock. In the February C.B.J. I read to keep the bees at 38°. This I tried, and all are perfectly quiet. There are sprouts on my potatoes six inches long because of my trying to keep the bees warm. In March C.B.J. I read where a man kept his bees at 20° below zero. I will bet there are no sprouts on his potatoes.

Now, Mr. Editor, I would like to ask a few questions: (1) How to discourage

STUPID

w coffins at J., page 107. did not build ed cells with harges them ax, also, that w the bees

swarming. (2) How to unite weak swarms in the spring. I have read of it being done, but they don't say how. (3) Will daylight hurt the bees in the cellar if they cannot get out of the hive? Would like to ventilate by opening the windows.

I will tell you how I fixed my hives last fall. I took one super for each hive and bored a two-inch hole through each side. In this I tacked wire mosquito netting so it did not protrude on either side. This I put between the hive and the bottom-board. I took a thin piece three inches wide, put close to the hole on both sides of super, one screw in super opposite centre of hole, one in hive, one in bottom-board, with a small piece stopping the bee-way. The bees cannot get out when I go down with light to bag up potatoes or any like work, and are in nice shape for shipping. They can't smother, and it does not hurt the super. When I take it off I take out the top and bottom screws and turn the three-inch piece over the hole, not removing the centre screw, and there is nothing interfering with the inside of super.

F. J. LEE.

Lee Valley, Ont.

[1. Your chief difficulty lies in the fact that you have allowed your bees to swarm too often. Any time after the first of May, if your bees are in good condition, put on the super. You may allow the queen to go up in this super and let her lay therein. This doubles the capacity of the hive, and prevents that crowded feeling among the bees that is supposed to provoke swarming. Of course, if this is done, your hives will require prompt treatment when the honey flow opens up. Your super with brood in it must be disposed of in some manner, according to the object you may have in view. If you have no object in view, other than that of preventing swarming, it will be necessary to put your queen down in the brood chamber, then put on your queen-excluder under the super. Then put your second super on top of the first to receive the surplus honey that may be coming in on a rush. Before confining your queen to the brood chamber proper, it would be well to raise one

or two frames of brood to the supers above, and put in their place one or two frames (as the case may be) of empty comb or foundation below. This ensures ample laying space for the queen, while the bees will now have three hives to work in, which will still further eliminate the swarming impulse, viz.: the brood chamber with one or two empty frames for the queen to lay in; the first super, which is partly filled with brood, but which from now on will be hatching out while no more is being laid, owing to your queen being below; the second super, which will contain frames for surplus only. Remember also that your first super will be receiving the surplus honey as fast as the bees hatch out of the cells. By this plan it is possible to carry many hives through the clover honey flow without swarming. We are writing this for you only as a beginner who wishes to avoid swarming. There are other plans by which the brood in your first super might be disposed of. Good bee-keepers would not want their surplus honey to come from this super, as the color would be injuriously affected. In the event of your having first swarms, set the new hive with the swarm on the old stand, and set the old hive near by, with entrance turned the reverse way. This will turn all the old bees and field bees into the swarm, and when the new queen in the old hive hatches out, there will not be enough old bees to swarm out with her when she takes her flight to meet the drone. Hence your "after" swarm is entirely prevented. It is these "after" swarms that have given you all your trouble.

2. Disturb the bees as little as possible. Take the cover off the hive to which the weak one is to be added, making as little noise and disturbance as you possibly can. Now lift your weak one off its bottom-board and set it on top of the one you have uncovered, and the job is done. If you have no particular choice of queen between one or the other, then let the queens settle the matter of supremacy themselves. If, however, you have one queen that you think more of than the other, it will be necessary to hunt out the undesirable one and kill her. This, of course, cannot be done until the weather becomes quite warm.

3. We cannot say that daylight would hurt them, but they would be far better if kept dark. Daylight and a high temperature acting upon bees that are confined and cannot escape from their hives might cause the death of a great number

by excitement to get out.
At another fix your bee wintering of our reader will give us a benefit. Owing swarms, your ters too weak

MR. J.

I note page D. Chalmers m the starvation He wishes to stand starving I have never I ence with the I dined to place hours. "It would think, to fix an as the time would son, whether ho or not. I would her of bees whi I agree with yo say (page 87) t pense with a b here. I use the Hive. It has a them solid and On account of th matically, as it below the frames other hive, so I use a board or t pinch," and, inc danger of killing itself. They ha anyway, so when one bee-space. I prefer the un too. Their term ally unlimited, w "bound" to go to By the way, M a Honey Market De tal, to give prices whole Dominion, sa largest cities in ea not take a whole

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At another time we will tell you how to fix your bees for winter. You are not wintering correctly now. Perhaps some of our readers who winter in the cellar will give us a paper on this for Mr. Lee's benefit. Owing to your having so many swarms, your bees went into winter quarters too weak to come through.—Ed.]

MR. JONES COMMENTS

I note page 105 of the C.B.J., that Mr. D. Chalmers makes enquiries in regard to the starvation treatment for foul brood. He wishes to know how long the bees stand starving before they begin to fall. I have never had any practical experience with the method, but would be inclined to place the extreme limit at 24 hours. It would be impossible, I should think, to fix any exact number of hours, as the time would vary according to season, whether honey was coming in freely or not. I would be guided by the number of bees which had fallen down.

I agree with you, Mr. Editor, when you say (page 87) that you would not dispense with a bee-space on top. Same here. I use the 9-1/2" Improved Model Hive. It has a grooved edge to keep them solid and square when tiered up. On account of this grooved edge it automatically, as it were, gives a bee-space below the frames when not piled on another hive, so I can, like Mr. Deadman, use a board or two as a bottom "in a pinch," and, incidentally, there is no danger of killing bees when set down by itself. They have a bee-space on top, anyway, so when I tier up there is only one bee-space.

I prefer the unbound zinc excluders, too. Their term of usefulness is practically unlimited, while the wood-bound is "bound" to go to pieces in a few years.

By the way, Mr. Editor, what about a Honey Market Department for the Journal, to give prices for honey from the whole Dominion, say from a couple of the largest cities in each province. It need not take a whole page. The American

Bee Journals do this, but then their prices differ widely from ours, and we are Canadians and independent of them.

HARRY W. JONES.

[Thanks, Mr. Jones. We will try and give the markets as far as possible.—Ed.]

NOT SO GREEN AS HE THINKS HE IS

In reference to writing you regarding my experience in bee-keeping, I may say I am only a novice at the business as yet, and if I told you of my experiences, I am afraid you would only laugh at them; neither am I a good hand at writing. I gain a lot of information from bee journals, but I find that actual experience, although sometimes painful, is much better than reading. I have had very good success with my bees so far. I have not had a very vast experience yet, as I have only five colonies, which produced about 350 pounds of honey last season. Wishing your paper success.

WM. R. COLLIE.

Hamiota P. O., Man.

[Thanks for your enclosure, Mr. Collie. As for your writing up your experience, we think you are unnecessarily modest. It would take a good deal of presumption on our part to laugh at a bee-keeper in Manitoba who can get 350 pounds of honey from five colonies. We think your results are remarkably good. It would certainly be a great aid to some bee-keepers in the West to know how you manage your bees. If you are only a novice at the business, you are a good one. It would be very interesting to know how you winter your bees, and when you place them on the summer stands. We insist that you must write us something along this line; your plea of not being able to write won't do. The average bee-keeper is not a college man, but he writes, just the same. We will look for you in our May number.—Ed.]

HE FLATTERS US

Clover Killed — Temperature — Alpaugh's Idea—Prefers Quilt to Honey-board

I must congratulate you on the last few numbers of the C.B.J., and the March number in particular. I have been

a subscriber for the past ten years, and time was when a very few minutes would suffice to digest all there was in it outside of extracts from the American journals. Different now, though. Why, the March number is meaty and full of interest from cover to cover. Have often been asked by beginners to recommend a good bee journal, and have usually mentioned one of the American journals, but now I feel that our own Journal is good enough for any one.

Talk about clover winter-killing! Well, if it's not killed here this winter I will never fear again. The fields since Feb. 6th have been practically covered with ice.

In March 15th number of "Gleanings" J. L. Byer says his bees simply roar when the temperature of his cellar goes up to 50°. Different here. The cellar at our out-yard has stood at 47° to 50° (and 50° most of the time) all winter, and never saw bees winter quieter and nicer. Some colonies with shallow entrances have been lying out all winter. This cellar has a more comfortable feeling when you enter it than the home one, where the temperature runs 42° to 45°.

Quite an idea, that, of Alpaugh's, of salt water as a preventative of disease. I fancy there may be something in it. Will try it this spring, anyhow. Have tried the artificial pollen, but never could get my fellows to work on it.

In regard to what you say, Mr. Editor, as to the respective merits of honey-boards and quilts, I would prefer the quilt in the spring of the year, as I think it will retain the heat of the colony better than the board, especially if the sealing of the board has been broken, as it should be before putting the colony in the cellar, to allow of a slight upper ventilation. Then, again, if you wish to examine a colony early in the spring, you cannot do so without exposing the whole top of the hive, while with the quilt you need only expose a frame or two at a time.

Renfrew, Ont.

A. A. FERRIER.

[Thanks, Mr. Ferrier, for your flattering remarks. We are glad to know that our efforts are being appreciated. It is not so much what we do ourselves, as the interest taken by our readers, and their readiness to take part in the discussion of matters of interest. There has been a decided improvement in this respect, and we gratefully acknowledge our indebtedness to our many friends for the interest shown. We are very pleased to receive the above from you, and hope to hear from you often.—Ed.]

APIARY INSPECTORS APPOINTED FOR 1909

1. J. S. Schrank, Port Elgin—Bruce and Huron.
2. D. Chalmers, Poole—Waterloo and Perth.
3. W. A. Chrysler, Chatham—Lambton, Kent and Essex.
4. John Newton, Thamesford—Middlesex and Elgin.
5. James Armstrong, Cheapside—Oxford and Norfolk.
6. J. Alpaugh, Eden—Wellington and Grey.
7. H. G. Sibbald, Claude—Simcoe, Dufferin and Peel.
8. Morley Pettit, Nixon—Brant, Halton, Wentworth, Haldimand, Lincoln and Welland.
9. W. Scott, Wooler—Northumberland, Peterboro, Hastings and Prince Edward.
10. J. L. Byer, Mt. Joy—Ontario, York, Victoria and Durham.
11. A. A. Ferrier, Renfrew—Renfrew, Lanark and Carleton.
12. J. Leslie McNaughton, St. Raphael West—Russell, Prescott, Glengarry.
13. M. B. Holmes, Athens—Lennox and Addington, Frontenac and Leeds.
14. Homer Burke, Highland Creek—Grenville, Dundas and Stormont.

You will note that the east has been given fuller representation, and a thorough inspection of the apiaries there should be a result of this year's work. There have also been some further subdivisions in the west so as to more thoroughly cover the field.

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Acting on resolutions passed by a number of the County Bee-keepers' Associations, the Department has restricted the work, except in special cases, to the time from the 15th of May until the 15th of August. In this period each inspector is asked to devote 24 days to the work. The appropriation has been increased from \$1,800 to \$2,500, but with the increased number of inspectors it has been found absolutely necessary to limit the amount of time each inspector can apply to the work.

Mr. M. Pettit, of Nixon, has been appointed to the position of Provincial Apiarist. His duties will consist of inspection work for the districts above mentioned, superintendent of the apiary which it is proposed to establish at Jordan Hårbor, and lecturer at the Ontario Agricultural College, Guelph, and among bee-keepers generally. Mr. Pettit has had a good training for this work through his experience as teacher, preacher, and writer for various journals. He will be given a free hand in regard to his experimental work, and it is hoped that much of value will be obtained from the results of these experiments. It will be noted that his inspection district is larger than that of any of the others. This is due to the fact that he will be able to devote the greater part of his time during such period to the inspection work, as the apiary at Jordan Harbor will not take up much of his time the first year.

In regard to the inspection work, we would ask that bee-keepers everywhere over the Province who have any suspicion of the existence of foul brood in their neighborhood would send word direct to me at the Department of Agriculture before the opening of the inspection season. In this way much valuable time may be saved to the inspectors and better work accomplished. The Department desires the co-operation of all of the bee-keepers in the forward work that they are undertaking.

P. W. HODGETTS.

EXPERIMENTS WITH FARM CROPS

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1909 they are prepared to distribute into every township of Ontario material of high quality for experiments with fodder crops, roots, grains, grasses, clovers and fertilizers, as follows:

No.	Experiments	Plots
1	Three varieties of Oats.....	3
2a	Three varieties of Six-rowed Barley	3
2b	Two varieties of Two-rowed Barley	2
3	Two varieties of Hulless Barley	2
4	Two varieties of Spring Wheat.	2
5	Two varieties of Buckwheat....	2
6	Two varieties of Field Peas....	2
7	Emmer and Spelt	2
8	Two varieties of Soy, Soja, or Japanese Beans	2
9	Three varieties of Husking Corn	3
10	Three varieties of Mangels.....	3
11	Two varieties of Sugar Beets for feeding purposes	2
12	Three varieties of Swedish Turnips	3
13	Two varieties of Fall Turnips...	2
14	Two varieties of Carrots.....	2
15	Three varieties of Fodder or Silage Corn	3
16	Three varieties of Millet.....	3
17	Two varieties of Sorghum.....	2
18	Grass Peas and two varieties of Vetches	3
19	Rape, Kale, and Field Cabbage	3
20	Three varieties of Clover.....	3
21	Testing two varieties of Alfalfa (Lucerne)	2
22	Four varieties of Grasses.....	4
23	Three varieties of Field Beans.	3
24	Three varieties of Sweet Corn..	3
26	Fertilizers with Swedish Turnips	6
27	Sowing Mangels on the level, and in drills.....	2
28a	Two varieties of Early Potatoes	2
28b	Two varieties of medium ripening Potatoes	2
28c	Two varieties of Late Potatoes.	2
29	Three grain mixtures for grain production	3
30	Three mixtures of Grasses and Clover, for hay.....	3

Each plot is to be 2 rods long by 1 rod wide, except No. 28, which is to be one rod square.

Any person in Ontario may choose any ONE of the experiments for 1909 and

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apply for the same. The material will be furnished in the order in which the applications are received while the supply lasts. It might be well for each applicant to make a second choice, for fear the first could not be granted. All material will be furnished entirely free of charge to each applicant, and the produce will, of course, become the property of the person who conducts the experiment.

C. A. ZAVITZ, Director.

O.A.C., Guelph, March, 1909.

NORFOLK BEE-KEEPERS' ASSOCIATION

The last meeting of the Norfolk Bee-keepers' Association, held at Simcoe, was a most enthusiastic meeting, as well as the largest in attendance of any for some time, which promises something better in store for the Association in the near future. In the subjects brought forward and discussed it was found that foul brood had been known to have been scattered by grocers, not knowing of any danger thereby, unintentionally setting out barrels and packages in which honey had been purchased. The bees are very willing to accept all such feasts, and disease is thereby at times widely scattered. The Association would kindly ask all grocers not to expose such articles where bees can have access to them. The following resolutions were adopted:

Moved by Mr. Morley Pettitt of Nixon, seconded by Mr. A. E. Cattle of Simcoe: That the Norfolk Bee-keepers' Association recommend to the Ontario Government that a prosecuting committee be appointed to follow up cases of infringement of the pure food law with reference to honey, and make prosecution where the Department of Inland Revenue have found adulteration.

Moved by Mr. R. F. Holtermann of Brantford, seconded by Mr. Joseph Misner of Nixon: That it is the wish of the Norfolk Association that the Ontario Government send to the German Government for the colored or lithographed

pamphlets describing foul brood, and the same to be given to inspectors for distribution.

Moved by Mr. A. E. Cattle, Simcoe, seconded by Mr. Morley Pettitt, Simcoe: That we give Mr. Brady a hearty vote of thanks for the use of a room.—Carried.

Moved by Mr. C. Quanbury of Lynn Valley, seconded by Mr. Z. McPherson of Port Dover: That we hold our next meeting on Friday, the 28th of May, at 10 o'clock a.m., at Mr. A. Vanderburg's, about two miles north of Simcoe. This to be a field meeting and practical work demonstrated. All bee-keepers or any one interested are invited, and do not forget to bring your ladies, also your lunch basket. Mr. Vanderburg is a practical as well as a successful bee-keeper, and any one attending should be enabled to carry home some valuable information, he at one time being quite an extensive bee-keeper.

LEE BEAUPRE, Sec.-Treas.

Forestville, Ont.

MIDDLESEX MEETING

The spring meeting of the Middlesex Bee-keepers' Association will be held in the City Hall, London, on Saturday, May 1st. The program includes a speaker from the Ontario Department of Agriculture. First session at 10 o'clock.

GEO. KIMBALL, E. T. BAINARD,

President.

Secretary.

FOUND HONEY IN THE ATTIC

London, Ont., March 31.—Mr. Phillip Cook, a well-known business man, found several hundred pounds of honey between the attic and the roof of his big apartment house, corner of Queen's Avenue and Colborne Street, on Monday. For years bees had been noticed in the neighborhood, but no one knew where they lodged. Men who were sent to do some work under the roof made the discovery, and an expert managed to corral the colony and remove the honey, which is of fine quality.

Notes

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March C.B. and when I n taken up with rambling homi vention. I felt solved to say r However, it i sometimes to c fect, especially come along, and friend Chalmers gressing, so on b for my taking

to say. Mr. Edit Chalmers "observes prepared to sit up in him you have a always smack of h open-heartedness, w of anything even b misrepresentation o ting that cannot, v of all contributions press. Now as to th all treatment of fo a last C.B.J., I de statements. In the analyze the instance bers gives to prove

Notes and Comments

[By J. L. Byer]

March C.B.J. came to hand to-day, and when I noticed how much space was taken up with the "Notes" and that rambling homily of the Brantford Convention, I felt rather ashamed, and resolved to say nothing in the April issue. However, it is a pretty hard matter sometimes to carry our resolves into effect, especially if unusual temptations come along, and in the present case our friend Chalmers is the cause of my transgressing, so on him will rest all the blame for my taking space again. Permit me

not cure. In the one case he admits that the man did not carry out instructions, and in the other he says that "a party who had treated his bees accordingly told me last winter that his bees were not cured." How do you know, friend Chalmers, but what there may have been some little details neglected in that case? Or can you be positive that there was no possible means of reinfection by some other means outside of the hives under treatment? Have personally come across so many cases where these loop-holes have been left open, even when the ordinary summer treatment was being carried on, that I confess to being somewhat suspicious very often when I hear the bee-keepers say that the plan did not cure. Have you not come across many apiaries where the bees had all been treated for foul brood by the ordinary method, and yet, after two, three or more years, some of the colonies were still diseased? If you have not, certainly you are an exception among the inspectors. Now was the system at fault? You will say No emphatically, and I will agree with you.



In just the same way, the Alpaugh system, while sound in theory and practice, will not always be a success, for just the same reasons that the usual summer treatment is not always successful. We personally know that many cases have been cured by the fall treatment under discussion, and the fact of some reported failures does not change the efficacy of the system one iota. You can truthfully reply that my arguments will apply to the sealed comb plan as well, and I unhesitatingly acknowledge the truth of your contention, but when you say that the treatment is "sure," I reply that while it may be so in your case, yet in many cases it has not been so, and only common courtesy forbids me from giving the private opinions of a great number of the most prominent and influential apiarists of Ontario. In one respect I see where the foundation plan

to say, Mr. Editor, that when friend Chalmers "observes" I for one am always prepared to sit up and take notice, for in him you have a man whose writings always smack of honest convictions and open-heartedness, with an entire absence of anything even bordering on egotism, misrepresentation or exaggeration, something that cannot, unfortunately, be said of all contributions to our apicultural press. Now as to the Alpaugh system of fall treatment of foul brood, as outlined in last C.B.J., I desire to make a few statements. In the first place, let us analyze the instances that friend Chalmers gives to prove that the plan will

rood, and the ctors for dis-
ttle, Simcoe, stitt, Simcoe: tearty vote of om.—Carried. ury of Lynn t. McPherson old our next h of May, at Vanderburg's, imcoe. This ractical work pers or ny and do not s, also your arg is a prac- l bee-keeper. d be enabled information, an extensive Sec.-Treas.

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e Middlesex l be held in tuesday, May s a speaker ent of Agri- o'clock.
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—Mr. Phillip man, found ney between is big apart- en's Avenue onday. For in the neigh- where they to do some ne discovery. rral the col- which is of

looks safer than the sealed comb system, and it is this: It is only too true that many apiarists are slow in recognizing foul brood, and it is quite possible that often in selecting healthy colonies to feed up to secure the full combs, that the said colonies do not prove to be entirely free from foul brood, and of course the colonies that receive the full combs later on will simply be "botched." This is no idle fancy, for bee-keepers have confessed to having done this very thing. On the other hand, with the foundation plan, when the diseased honey is used up, there is no possible source of infection, as sugar syrup and foundation constitute the raw material. Now as to the time for starving. There is no law saying you cannot leave them longer than two days if necessary, but the conditions at the time of year when this treatment is carried out is so different to that of a honey season, that I really think that two days then is as efficacious as four during the honey season. At the latter period, when the honey is coming in freely, and there is abundance of brood in the hive, it always seems to me that the bees seem to fill themselves more fully than is the case when shaking is done after the honey flow. Then, again, often considerable honey is shaken out on the bottom-boards and in addition, some honey is nearly always coming in from the fields at the time of treatment. After all is said and done, I am of the opinion that we should not recommend **any kind** of fall treatment except under very exceptional conditions, for the simple reason that but comparatively few bee-keepers will be thorough enough in their methods to make a success of the job. I want to say yet that my personal experience, as intimated in March issue, has been very limited in this matter of fall treatment, for the reason that I only had foul brood in the apiary for the two seasons, and of course I do not feel like introducing the disease again simply for experimental purposes. But say, friend Chalmers, I really do not

understand the source of infection of those big swarms from the foul colonies. Without any compunctions, I freely give my opinion that the infection came from super combs or some other source outside of the hives. From my earliest recollections of friend McEvoy's visits in our locality, I recall, among other teachings, the following: "A first swarm issuing during a honey flow rarely carries the disease, while a second swarm nearly always will be foul." Have nearly always found this to be the case, and as a rule colonies hived on foundation will be found to be all right. If this is not the common experience of others, will have to explain it by the word (much overworked) "locality."

In conclusion, would say that what I wrote on the foul brood treatment for the March issue was done under protest, as the Editor will affirm. However, have no apologies to offer, as it has been the means of bringing out such a splendid, useful contribution from friend Chalmers—a contribution unbiased, full of candor and common-sense.

[You are all right, Byer. You have no need to apologize to any one. As for the C.B.J., it will accept no protest. We simply cannot do without you every month. We would have been grievously hurt if you had not turned up this month. Our friend Chalmers has something to say and knows how to say it. He is making good.—Ed.]

FOUL BROOD QUESTION

[By J. Alpaugh]

Mr. D. Chalmers, of Poole, Ont., on page 104, C.B.J., takes me to task for my two-day starving system, simply because he found foul brood in some hives treated that way. I could knock McEvoy's four-day system higher than "Gilroy's kite" if I was to single out all the cases of foul brood that I found on my rounds of inspection in 1907 which had been treated according to McEvoy in 1906. To show you how absurd it is to condemn a system simply because some

one has failed in one case I Beattie, a sh just at the c flow, 1907, sh McEvoy's pla starved them then gave the inspect his api three of the f shaken about with foul bro Mr. Jones, a Elgin, shook a in 1906 accordi but instead of something took left them alto them after the go. In 1907 I those colonies find one cell of years in Galt I v many foul bro from foul brood with them. I fo enough to starve was carried out have made a c shaking the bees starters. I have to foundation an not say how tha '22 rifle will do why fire those which take so m them? If J. B. can make a succ cannot others? I the single shaking inspectors say st fall into line and whether I think i Chalmers, McEvo best of friends, so have been just fa mill that if some too hard on my they crow or come Eden, Ont.

THE ONTARIO B. K. A.

Its Benefits—Good Work of the Department—Honey Crop Committee

Lack of space must be our excuse for not presenting to our readers the remarks of Mr. W. Couse at the last O.B.K.A. meeting in Toronto. The following is his address as Vice-President at that time. He is now our worthy President. We trust that what follows will stimulate more of our readers and others to become affiliated with the Ontario Association:

The President has mentioned the pleasurable part of meeting together year after year. It is a fact that there are a great many of us who have met together year after year, Mr. Chairman, and meeting as friends, and while everybody knows that we are not always in the best of moods, we really realize out of being present a great deal of profit and pleasure. I may say that I have seen many a good scrap, and I believe that it is a pleasure to a great many. I don't know that I ever saw one yet but there was something in it. People differ, and will differ, and sometimes get mad because you do not differ with them; but, after all, I believe you can have a good scrap and benefit by it; but I tell you there is one thing—it is wise to do it aboveboard, and I believe you will find that there is nothing in it in the majority of cases if you come at a person and have your scrap fair and square, instead of going around behind him and saying something. I think it wise when we have any troubles at all to give them out; it will bring out discussion; it will bring out perhaps something that is hidden, that you don't know anything about, and it will prove something has been said that should not have been said, and in that way we will all be benefitted by it.

The President has made reference to the crops. I felt for some years that our crop of honey was not extra good, but the trouble has been that we have been

one has failed with it I will just relate one case I found in particular. Mr. Beattie, a short distance out of Stratford, just at the commencement of the clover flow, 1907, shook 4 colonies according to McEvoy's plan, but, to make a sure job, starved them six days instead of four, then gave them foundation. I called to inspect his apiary July 9th, 1907. I found three of the four hives (which had been shaken about a month before) quite bad with foul brood. Now for the opposite. Mr. Jones, a short distance out of Port Elgin, shook a large number of colonies in 1906 according to the McEvoy method, but instead of leaving them four days, something took up his attention, and he left them altogether—did nothing with them after the first shake; just let them go. In 1907 I examined every one of those colonies carefully and could not find one cell of foul brood. For several years in Galt I was in the habit of getting many foul brood colonies, or bare bees from foul brood hives, and experimenting with them. I found two days quite long enough to starve the bees when everything was carried out to a dot; in fact, I have made a complete success of just shaking the bees once when shook on to starters. I have never shook direct on to foundation and let them go, so could not say how that would work; but if a .22 rifle will do the work of a cannon, why fire those big guns of McEvoy's, which take so much ammunition to load them? If J. B. Hall, myself and others can make a success of one shake, why cannot others? I have never advocated the single shaking. If the voice of the inspectors say starve four days, I will fall into line and use the same platform, whether I think it necessary or not. D. Chalmers, McEvoy and myself are the best of friends, so far as I know, but I have been just far enough through the mill that if some of those roosters tread too hard on my corns, I will see that they crow or come down off the perch.

Eden, Ont.

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looking for one hundred pounds per colony every year. I think we might come to the conclusion that we are getting a good crop if we get one hundred pounds per colony. This year a good many have not got that. I think the average is somewhere around sixty or seventy pounds. I think we aim a little high when we aim at one hundred pounds; I don't think we average it, taking it all around.

As to the conditions of the bee-keeping industry in the country, I don't think there are as many bees as there were a few years ago. I think a good many of the small bee-keepers have lost their bees. It is perhaps a fairly good thing for the majority of those who are making bee-keeping a business that the little ones that have two or three hives have not got them, because they are to a certain extent an injury to a great many bee-keepers, and it is not profitable to themselves, because they do not understand it and do not go at it and make a business of it, and if there is any disease in the community they are dangerous to have near you. In that way we are perhaps in better condition than we were a few years ago, in that these small bee-keepers are not holding disease in the vicinity of the larger bee-keepers as they were a formerly. The industry is no doubt better than it was years ago. It is only by what we may call just keeping on and keeping on that you can accomplish very much. All the advances in bee-keeping have not been done in one year or two years; it has been a good many years that people have been trying to get up into a better way of handling their bees, and these conventions are for the purpose of educating the people to do that. The President has made reference to banding ourselves together to do that kind of work. Now, sir, it is a fact, I believe, that if we had no organization in Ontario, Ontario would not have held at all the reputation it holds to-day as to bee-keeping. (Hear, hear!) Now, it is, perhaps,

another fact that a great many of the bee-keepers that have done the educating to a considerable extent have not been selfish. My experience with the Association is that I have found that nearly every person that has done very much good to this Association has been unselfish; and I believe that any body of men that is trying to advance the industries of the country is unselfish. They do not look to get the dollars and cents out of the thing as much as some people blame them for doing, and it is a pleasure to have had a good many years of experience among the bee-keepers of Ontario and be in a position to say that. I know I have asked bee-keepers to write papers for somewhere in the neighborhood of twenty-one years, and there were very few refusals; they all sacrificed time and energy.

In respect to the inspection of apiaries, I have not the least doubt at all that this work is being carried on to our advantage through the liberality of the Department of Agriculture. It is only a few years ago that I really thought and felt that they would be able to assist us in a very liberal way. We are not disappointed at all in the way that the Department has taken hold of and helped the bee-keepers of Ontario. It is almost beyond what we expected, and I believe, sir, if we band ourselves together in greater numbers, with greater energy, that anything we ask is forthcoming from the Department. The Department of Agriculture in Ontario really feel that their position is a great one; they feel with their assistance that they have got the country that can produce almost everything that we need in the way of agricultural products and of the best quality in a great many things.

Now, sir, I really think it is well to impress that upon us, that we band ourselves further together with energy, and we will get more than we ever got before. We are now getting more than we ever got before, by a great deal, and

I venture to say more.

Now, the country I suppose to speak of at apiaries, who they find the bees are clear were a number

In reference I have said before I have been on of years, and I than I ever ha pretty accurately crop report in C that we can do done, but if y several times it I ence that you c

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I venture to say we will get a great deal more.

Now, the condition of the bees in the country I suppose I am not in a position to speak of at all like the inspectors of apiaries, who would state as to whether they find the bees in better condition or not, but I venture to say they will report the bees are clearer of disease than they were a number of years ago.

In reference to the crop report, as I have said before, I have confidence in it. I have been on that Committee a number of years, and I still have more confidence than I ever had that we can estimate pretty accurately the condition of the crop report in Ontario. I am surprised that we can do it as well as it has been done, but if you have done a thing several times it begins to give you confidence that you can do it well.

Now, I don't know that we have ever been a cent out in all the crop reports we have got. I don't know that we have ever suggested honey should be sold for five or ten cents, and it was not sold for those prices. Even this year it was doubted as to whether we were correct or not that the probabilities were there was a fairly good crop of honey. However, when we simmered the whole thing down, it was found that some sections hadn't much and others had quite a little, but we still found there was no honey at all in the hands of the dealers—there was a clear market—so we based on a good many grounds; and I believe from the reports that came back you can accomplish a great deal in a crop report.

OUR CHRISTIAN FRIEND

R. F. Holtermann, in "Gleanings," April 1st:

"After reading all the valuable articles written by Canadian bee-keepers in the March 1st number of 'Gleanings,' I do not know in which to feel the greater pride—the Canadian bee-keepers or 'Gleanings.'"

Chalmers' Observations

At your request, Mr. Editor, I herewith advance some observations which led me to suggest quarantining colonies of bees affected with foul brood as being the safest and surest way of handling them.

My proposition would be to have a public or general quarantine station in each township, and let every bee-keeper of any importance have his or her own private quarantine as well.

I made arrangements to this end four years ago with a farmer two miles distant from my apiary, but have not so far carried it into effect. What led me to that was through observing how bees of one colony will mix with others. I purchased a queen bee from the late Henry Alley some years ago which produced very yellow workers. Those bees, either through mistake or stupidity, entered and were received into the first, second and third hives to the south (the latter being 21 feet distant) and one hive to the north of their own (7 feet). Knowing this to be a fact, apart from drifting and robbing, is there not a great risk in allowing foul brood colonies to remain in a valuable apiary? Then when it comes to the time of shaking, I consider there is less or more danger of bees hunting for and entering neighboring hives, seeing the inside conditions of their own are so transformed. I expect it is to try and obviate this danger that Mr. McEvoy advises shaking in the evening.

But the greatest need for quarantining is to have stations where diseased colonies owned by careless bee-keepers or bee-keepers of dwarf-like calibre could be run in and treated by a competent person, and not the curing alone, but the careful disposal of the combs containing the disease. The latter phase has given me no little concern ever since foul brood struck this locality.

Right here I might cite a case which came under my notice this winter, and the party wasn't by any means a man

whom we would suspect as being careless. He came to see if I would sell some bees, as he wanted to increase his apiary. He was from Inspector Armstrong's district, and on enquiry I was told by said party that Mr. Armstrong's instructions for curing foul brood were to have the bees build their own comb for three days. The writer was pleased to learn that he was not single-handed in teaching the three-day system, but imagine my surprise when mentioning this case to Mr. Armstrong at Brantford in January to see how annoyed he was, and declared that "he never advised less than four days."

This party told me also that he rendered the diseased combs into wax, so I queried regarding how he disposed of the refuse, slum-gum, washings, etc.—if he buried them or threw them into the river. "Oh," he said, "I just throw them out." This reminds me of an incident which I was told occurred during a fire in a certain town, where men were seen carrying a show-case carefully from a burning store, and when they reached the street they threw it down. Judge ye whether their work ended disastrously or not.

Honey washings and slum-gum thrown on the surface of the ground are conducive for bees to visit, and germs of foul brood might be present and be carried to healthy colonies, with evil results.

As a plea for the need of early inspection, I can recall two cases particularly, the one occurring under Inspector McEvoy's jurisdiction, the other under Inspector Alpaugh's. When piloting those gentlemen around my locality, we came upon hives standing exposed with open entrance, said hives containing combs contaminated with foul brood and the bees all dead. This in a time of scarcity of nectar (spring particularly) is counted a snap by bees in search of sweets, and they set to and carry home all the honey they can sip from those combs, and the germs of foul brood with it. This, you understand, is not a case of robbing, but

gross carelessness on the part of the bee-keeper, and it is as natural for bees to follow the attraction there as it is for the water of Niagara to go over the Falls.

If public quarantine stations were established, the bees could be sent there till the proper time came for curing, at which period there could be two allotted days each week for taking in new cases. Have a fixed afternoon weekly when the shaking is to take place, then their owners could come and see how it is done, and most likely learn considerable more besides. In fact, those would be regular "field days," as the Roots put it. The day after the second shaking the bees could be taken home and leave the station ready for the next batch.

Watering Bees.—Seeing brother Alpaugh is the inventor of a splendid little wax-renderer, it is a wonder he don't apply to Old Sol, too, to warm the water for his bees, instead of doing it artificially, as he advises. I have a small keg (a box will do, even if it leaks a little) standing on the upper end of an inclined board. Near the bottom of the keg there are a couple of gimlet holes, with a little peg in each to regulate the flow of water to an occasional dropping. Place this where it will be sheltered from wind and the water will be warmed sufficiently. In fact, I shade that board during the heat of summer. By this inclined board system there is no need of floats, as the bees will get nothing worse than wet feet, which they get more or less in any case.

The "Gad."—As stated in my prologue in January C.B.J., "I do not disclaim that my articles will frequently stand criticizing," so I see brother Deadman is calling me to task, or, in other words, using the "gad," as his initials imply. Laying jokes aside, however, this is just what we are after, so that we may, by vibrating the pen, act the part of the bees, which keep on ventilating the hive and thereby evaporate that which is of no use, until they give us the very best.

Friend Deadman and from whose splendid ideas, do that very should be done are bee-spaceless as easy as not longer than the fastened thereon. These cleats show top and just fa outer end of hives cleats or bars. 2 be set safely on taining bees shou on this or "any be let down till which chanced t crack, then ease t and those bees v quicker than wink try and save every of criminal neglig

As stated in 1 proper constructio nary C.B.J., I c best given in the case there is no n the frames. Then above the brood ch space both below when excluder is u is above the fram used, there is no) There is quite ofte are easily removed broken table or bu have bee-space at judge that the entr. of the front of the they could not be u closing that entran man and those of bottom-board with space under the fra the bees to reach t must run to the sid to where they want and, in fact, we all to make a bee-line ev

Friend Deadman is a man I do respect, and from whose pen I have gleaned some splendid ideas, but he knows as well as I do that very little bee manipulation should be done "any old way." If hives are bee-spaceless at the bottom, it is just as easy as not to have a board a little longer than the hive, with two cleats fastened thereon for setting hives on. These cleats should be sloped inward on top and just far enough apart for the outer end of hive to rest about centre of cleats or bars. A hive of any kind could be set safely on this, and no hive containing bees should be set down hurriedly on this or "any old place," but should be let down till the bones of the bees which chanced to be under it almost crack, then ease the hive off just a little, and those bees will be out of the way quicker than wink. The bee-keeper should try and save every bee, and not be guilty of criminal negligence or bee-slaughter.

As stated in my description of the proper construction of a bee hive, February C.B.J., I consider the entrance is best given in the bottom-board, in which case there is no need of bee-space below the frames. Then the hive or super next above the brood chamber must have bee-space both below and above the frames when excluder is used. When the space is above the frames and a honey-board used, there is no propolis to scrape off. There is quite often burr combs, which are easily removed with a dull chisel or broken table or butcher knife. If hives have bee-space at the bottom, I would judge that the entrance must be cut out of the front of the hive, in which case they could not be used as supers without closing that entrance. If friend Deadman and those of his persuasion use a bottom-board with bee-space, as well as space under the frames, it is too far for the bees to reach the frames, and they must run to the side and up and across to where they want to go. I believe—and, in fact, we all know—that bees try to make a bee-line every time, and where

is the bee-keeper who hasn't noticed little pillars of refuse wax in the bottom-board, which I have often hesitated in scraping off, supposing them to be put there by the bees as aids to reach the frames? But I must give room for others to have their say, so adieu!

DAVID CHALMERS.

Poole, Ont.

INTERESTING GERMAN ITEMS

[Translated by Jacob Haberer]

The Honey Production.

According to the decision of the High Court in the law suit of Reiniger, the bee-keeper can feed sugar to his bees, and can sell the product as honey. The majority of bee-keepers are sorry for such a decision, but a small number just got what they wanted. Frendenstein, editor of "Nenen Bienenzeitung," has advocated sugar honey production for years. Now the editor of the Pommersche Rutgeher fuer Bienenkunde," Bohnenstengel, follows in his theory, and is quite delighted over the decision. He writes about like this: We have to produce the sugar honey near to natural honey in color as well as the different kinds of flavor, and should the natural honey occasionally be of a poor quality, the bee-keeper should have a right to produce any quantity of honey by sugar feeding. Bohnenstengel says: We have the living machines (bees), and don't make use of them. By such an industry the natural honey will go to the table of the rich people, for a good price, and the sugar honey for a small price on the tables of the poorer classes, and in this way bee-keeping will come to a high standard and be a profitable business at once.

Now how far Frendenstein's theory has already progressed may be seen by the fact that about 10,000 bee-keepers have practised such a honey production in the last few years, and sold the same as warranted pure honey. All over the bee-keeping world this is called fraud, and such kind of bee-keepers will soon find

that their honey will not be wanted any more. The press has to stand united against the above theory.—Reidenbach, Lux. Bienenzeitung.

From Switzerland.

If foul brood appears at a bee stand, it can be easily disinfected with petroleum. First scrape every part of the hive clean, then apply petroleum with a brush. Boil the frames in soda water. The hives cannot be used for two weeks.—Bulletin de la Société Romand d'Apiculture.

Some time ago I received from the Editor of C.B.J. a very interesting new book, "Der Bienen Honig und Seine Ersatzmittel" ("The Bee Honey and Its Substitutes"). The author is Alfred Hafterlik, Inspector of Provisions, Munich, Germany, published by H. Hartleben, Wien & Leibzig. This is for every one connected with the production or use of honey a very interesting work. It explains comprehensively the origin, production, use, investigation and judgment of honey and its substitutes. The intention of the author is that the bee-keeper should get better acquainted with the investigations of the chemist, and he is confident that the chemist will also acquire more of the necessary intelligence of the life of the honey bee and its work, and if both bee-keeper and chemist work hand in hand together they will be better able to overcome the present corruption and adulteration in the honey industry. The book treats of the origin of all the different kinds of honey, in color, consistency and flavor, the honey-producing insects, the different uses of honey for pharmacy, as well as manufacturing purposes, the analyzing of honey, the different kinds of artificial honey and adulterations, and also the different kinds of sugar and molasses. The book will be of importance to every one who can read it—it is printed in German; 272 pages, price 3 marks (75 cents).

"Der Pommersche Barthgeber fuer Bienenzucht" contained in Nos. 11 and

12 of 1908 an article, "The Importance of Sugar in Modern Bee-keeping." The production of sugar honey and sugar feed was recommended, and they wanted the Dentchen Imkerbund (German Bee-keepers' Association) to introduce this system and bring the German bee industry to a high standard; but the directors declared that they would consider it the duty and task of the Imkerbund to do all in their power and use every available means against such a honey production, that would soon undermine the reputation of the Imkerbund. Signed by the directors: Lydow, Menmann, G. Gruebner, Hoffmann, Ludwig, Schneider, Seeliger, Wandel.—Practischer Wegweiser.

A MODERN MARVEL

Few people properly realize they have within their reach a modern article which possesses a capability of saving them innumerable petty annoyances and vexatious discomforts; also when told of its passive power to preserve uniform conditions of temperature, they find it impossible to understand how two simple laws of Nature, with which they have been familiar all their lives, can, like the sun and moon, with Joshua of old, be made to stand still. However, it is all true, and yet no miracle whatever.

The Thermos Bottle, which will keep boiling liquid hot for 24 hours, although in the midst of ice, and, if desired, the same bottle will keep ice intact and completely gealed for as long, although in the midst of intense heat, perverts no law of Nature, but simply obeys one that has long been known to science, although only recently applied to a useful end.

The Thermos is merely a bottle within a bottle, with the air between extracted. As space conducts neither heat nor cold, the explanation is obvious. If the vacuum could be made absolutely complete the contents of the bottle would not change as long as the vacuum between remained a vacuum; but the old proverb "Nature abhors a vacuum," precludes

this perpetua time, the Th represents it as attained.

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Sable, Middle.

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Beans—Receipi are firm; prime, picked, \$2.10 to

Honey—The prices unchanged per dozen, and st

Hay—No. 1 tir to \$11 per ton or grades at \$8 to \$

Straw—The mar quoted at \$7 to :

Potatoes—The higher, with good lots, 80 to 85c pe

Poultry—The m ferings small. Ch 16c per lb.; fowl, to 22c per lb.—To

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demand and small clover, white hon grades, 12 to 13c; 12c; buckwheat, 8 t

On Sunday, Apri gathering pollen for as we are aware of.

The Importance of Bee-keeping." The and sugar feeders they wanted the German Bee-keepers to induce this system in the industry to a directors declared it the duty and to do all in their available means for production, that the reputation of the directors; Gruebner, Seeliger, weiser.

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realize they have an article which saving them in- nces and vexa- then told of its e uniform con- hey find it im- ow two simple hich they have lives, can, like Joshua of old. However, it is cle whatever, hich will keep hours, although if desired, the intact and com- gh in the mid- no law of Na- e that has lon- although only ful end. a bottle with- been extracted heat nor cold is. If the va- lutely complete- tle would no- acuum between he old proverb- im," preclude

this perpetual condition; at the same time, the Thermos Bottle no doubt represents it as near as it will ever be attained.

A GOOD REPORT

The following bee-keepers have taken out their bees: Mr. Elliott, Rev. John Moore, Angus Galbraith, James Guy, Alex. McAdam and John Gilbert. The total-number of colonies is 690, and they have only lost 20. White and alsike clover has wintered fine, and prospects are for a good yield of clover this season.

ANGUS GALBRAITH.

Sable, Middlesex Co.

THE MARKETS

Apples—The market continues steady. They bring \$4.50 to \$5.50 for choice qualities, and \$3.50 to \$4 for seconds.

Beans—Receipts are fair, and prices are firm; prime, \$1.90 to \$2, and hand-picked, \$2.10 to \$2.15 per bushel.

Honey—The market is quiet, with prices unchanged. Combs, \$2 to \$2.75 per dozen, and strained, 10 to 11c per lb.

Hay—No. 1 timothy is quoted at \$10 to \$11 per ton on track here, and lower grades at \$8 to \$9 a ton.

Straw—The market is quiet, with prices quoted at \$7 to \$7.50 on track.

Potatoes—The market is active and higher, with good export demand. Car lots, 80 to 85c per bag on track.

Poultry—The market is firm, with offerings small. Chickens, dressed, 15 to 16c per lb.; fowl, 11 to 12c; turkeys, 20 to 22c per lb.—Toronto, April 14.

There is no change in honey, prices being well maintained under a steady demand and small supplies. We quote: Clover, white honey, 15 to 16c; dark grades, 12 to 13c; white extracted, 11 to 12c; buckwheat, 8 to 9c.—Montreal, April 14.

On Sunday, April 18th our bees were gathering pollen for the first time, as far as we are aware of.—Ed.

FOUL BROOD DISCUSSION AT THE DETROIT NATIONAL CONVENTION

(Continued from Page 115)

Mr. Holtermann—We are now touching upon a subject which is, I think, of very great importance to the bee-keeping industry, and I believe we should be thoroughly afraid of foul brood, whether American or European. I know underneath the surface I have been blamed for spreading foul brood. There have been two cases where, in a mistake years ago, I sold foul brood to other parties, and then made it right as I best knew how. I am afraid of foul brood. I never had a serious attack of it, but I have occasionally had cases, and from what I know of it from my own experience, and from what I have seen a great deal more in others, I would say what every bee-keeper and bee journal wants to do is to make every person thoroughly afraid of it.

Dr. White has said that there are cases where we cannot control the causes, as it were. That is, if my neighbor has foul brood the stronger my bees the more likely I am to have the disease. I have somewhere like four hundred colonies, and I have said time and again that if the disease should break out to any extent in my apiary I would simply throw up the job; it would cost me thousands of dollars to cure that disease, and therefore I have very good reason to be thoroughly afraid of it. With all due respect to these gentlemen who have spoken, and whom I agree with in many things, I do not agree with the sentiment of not being afraid of the disease known as foul brood.

Mr. McEvoy—On this question of treating the disease, if you have got a lot of nice white comb over diseased colonies, and these have wire foundation, they are very valuable, and you do not want to destroy them if you can help it. If you have been afraid of foul brood, turn the cloth back and let the bees clean those combs out clean and dry, and they will be perfectly safe, and the greater amount

of combs of that kind that can be saved the greater quantity you will get; but where an old comb has had a cell of foul matter in it, it will stay there as long as the comb lasts.

Mr. Pressler—Does this apply to both American and European foul brood?

Mr. McEvoy—Yes.

Getting Rid of Foul Brood With the Least Financial Loss

[By Hon. R. L. Taylor, Lapeer, Mich., Inspector of Apiaries for Michigan]

Mr. Taylor—The subject has been talked about so much that I had got rather tired of it, and I presumed most of you had. My topic is "How to Get Rid of Foul Brood With the Least Financial Loss." I think the first thing everybody ought to attend to who has foul brood, or fears he may have it, is to get thoroughly acquainted with it and with the description of it. I have been surprised at men coming to me and wanting to know about something that had happened in the combs of their bees. Some had dead brood and wanted to know whether it was foul brood or not. They had read all about foul brood, the descriptions of it, but they couldn't tell whether the dead brood was afflicted with the disease or not. The descriptions are plain enough. There are 1,000 of them, and they are every one plain enough so that anybody with any intelligence can understand when they see a case of foul brood. The trouble is that bee-keepers do not sit down and study the description.

Now, as was intimated by some one here, the price of freedom from foul brood is eternal vigilance. We are not going to get entirely rid of it, because it is in the woods, and bees die in the woods, although I have heard some say that a colony in a tree never dies, but it is pretty certain they do, and they surely would when they had foul brood, and we will get it from the woods and from two or three colonies here and there out in the country perhaps that we never have known about, where the owner

takes no particular interest in them and does not care whether they die or not, and does not care whether they are robbed out or not when they do die. That, I think, is the point of greatest importance.

Now, as to avoiding financial loss otherwise. You understand the loss may consist in the loss of the bees or the hive or the honey. How shall we proceed in order to save this property? Sometimes the bees will be found to be worthless when you discover the foul brood. When they get so weak that there are about a handful of bees left, they are almost entirely old bees, and the quicker you can destroy them the better. There is no financial loss in that. The hive is safe to use again. There is no financial loss in that. But sometimes we find foul brood colonies that are of considerable strength. You may discover in your apiary a half dozen or dozen colonies affected with foul brood. How are you to dispose of it? In the first place, you want to understand thoroughly just what you have got and the condition of each colony. Then you want to lay down a plan as to how you will proceed. If your colonies are strong there is a way to get rid of it without much danger and I think with perfect safety, so far as the new colony is concerned, and that is Baldrige's plan of using a bee-escape. You prepare a hive for your colony with starters or foundation and place it upon the stand of the colony that has the foul brood, setting that one a little aside, putting the entrances as nearly together as possible; then take sufficient bees cut of the foul broody colony and put them in the new hive with the queen to make a start—sufficient bees to take care of the queen, at least—and then put up a bee-escape upon the front of your hive having it in every other way perfectly bee-tight. Then you have nothing more to do but to let the bees come out of themselves through the escape, and if you place your escape properly they can

not return to go into the uses that and I have used I have found it cases where weak. There number, and you the shaking me for as many make out of will generally the number which cause a good m very favorable early, will not build up into a to make the new to build-up. Y eased colonies your brood is which to put t from the rest o Then you shake hives, taking suc will do best and which you have t or two of these allowing it to re two, so that a g the healthy brood onies will be save

Now, I think t intelligent underst of handling the dis of weak colonies sufficient, and thos the foul brood has will be treated in wards the same as treated.

Mr. Holtermann—queen in these colo brood on?

Mr. Taylor—I w have never caged one part of the

Mr. Moore—What the combs?

Mr. Taylor—If I

not return to the foul brood colony, but go into the new hive. Mr. Baldrige uses that and says it is always successful. I have used it in several instances and have found it successful. There are other cases where some of them are rather weak. There may be a considerable number, and you may want to cure them by the shaking method. Provide your hives for as many colonies as you desire to make out of the diseased ones, which will generally be somewhat less than the number which have the disease, because a good many of them, unless in a very favorable time of the year and early, will not be sufficiently strong to build up into a good colony. You want to make the new colony sufficiently strong to build-up. You select from these diseased colonies one or two colonies, if your brood is worth anything, upon which to put the brood that you take from the rest of the diseased colonies. Then you shake off the bees into new hives, taking such colonies as you think will do best and setting the brood from which you have taken the bees upon one or two of these diseased colonies and allowing it to remain there a week or two, so that a good deal of the brood, the healthy brood, in these diseased colonies will be saved.

Now, I think these methods, with an intelligent understanding of the dangers of handling the disease and of the danger of weak colonies being robbed, will be sufficient, and those colonies upon which the foul brood has been put, of course, will be treated in a week or two afterwards the same as the previous ones were treated.

Mr. Holtermann—Would you cage the queen in these colonies that you put the brood on?

Mr. Taylor—I would shut her below. I have never caged her, but I confine her in one part of the hive.

Mr. Moore—What would you do with the combs?

Mr. Taylor—If I had conveniences for

taking care of the combs so that I could be perfectly sure they could be cared for without the bees getting at them, I would boil them up and get the wax out of them. But if I had a colony that had been cleaned of foul brood and I discovered an infected comb or two, the best course would be to burn them right up. Burn them or bury them unless you have conveniences in which you can take care of the combs securely. There is where the danger comes.

Mr. Holtermann—If you had one hundred colonies, would you do that?

Mr. Taylor—It would depend on the man. A good careful man could save his bees and save the wax in the combs. If he was not a careful man he had better burn them up.

Mr. Lewis—Mr. Taylor says put the diseased brood over a queen-excluder. Now, I have tried that with four hives and have had two of them block up the escape so that the bees above smothered to death.

Mr. Holtermann—Were there many drones in your brood?

Mr. Lewis—No, it wasn't from that cause.

The President—Did you use a bee-escape?

Mr. Lewis—Yes, a regular bee-escape. That seemed to be all filled up with cappings and then the bees had crowded in and blocked it right up so that it was just solid and the bees were dead. Now, take a good clean comb that never had foul brood in it, but that had honey from a foul brood hive below, and above a bee-escape. I had one hive of that kind, and I wanted to save that comb badly. How I could get the honey out that remained in those combs after extracting was a problem. I saw that every cell was uncapped on both sides of the card; it was about two-thirds full above when I discovered the old hive was full of foul brood. So I took them one by one and I soused each card up and down in water, turning it over and throwing

the water out three times in succession. Then I sunk them in water over night and then threw them out, and the next morning put them up to dry in my beehouse, and before they were quite dry a large colony of bees came out and I put them right in that hive, and they have been there four years without any sign of foul brood.

Mr. Taylor—What did you wash them out for?

Mr. Lewis—To get the honey out.

Mr. Taylor—It was brought from the fields?

Mr. Lewis—Yes.

Mr. Taylor—Well, that is always safe.

Mr. Williams—Mr. Taylor speaks of using the hives again. Does that include using the frames over again?

Mr. Taylor—I have. If you boil them thoroughly I consider it safe.

Mr. McEvoy—Yes, perfectly safe.

Mr. Taylor—In fact, I think it would be safe without it in the majority of cases, because the foul brood does not go up to the frame, and if I cut out the combs I would not be much afraid to use them just as they are.

Dr. Phillips—It seems to me that this discussion has missed the whole point in the financial treatment of bee diseases. If we are going to eradicate bee diseases from the country or state or continent, it must be done by a modified method of manipulation. If a man goes on producing honey, as we have been taught to do since the honey extractor was brought in, the bee diseases will be very hard to control; but if we modify our methods so that wax production becomes a part of our manipulation bee diseases will no longer be a serious proposition. We have been led to believe that the combs may be used and should be used year after year. Bee-keepers have been led to believe that wax production is not profitable, and a little figuring on this thing will demonstrate that such is not the case. A colony of bees does not consume fifteen or twenty pounds of

honey in making a pound of wax, provided the extractor that is used is of the right kind. If a colony of bees is shaken from its combs or swarms from its combs and is started in a new hive, the amount of honey used in producing a pound of wax is far from being fifteen pounds. It is very low. We have a fresh writer who is very competent to write on the subject who has put this figure as low as two pounds. It does not cost fifteen pounds of honey to get a pound of wax. Now, if we utilize this point, if we modify our manipulations in such a way that we compel the bees to build wax by shaking, we will make almost as much money from wax as we did before from the old method. The shaking treatment, I believe, is the only treatment worthy of consideration. If we allow the bees to leave the combs by the use of the beescape they go out without the stimulus which they should have, and do not secrete wax anything like as fast as they do when shaken, and under those conditions wax is secreted at a very much less cost.

Something has been said about whether it is desirable to save beeswax or not. That also goes into the loss question. If we are to have any hope of success with the eradication of bee diseases we must save this wax and save it all, or the bee disease treatment cannot be carried on as a financial success. A colony in a ten-frame Langstroth hive contains over four pounds of beeswax. At 30 cents a pound—that is higher than the average bee-keeper gets—the average bee-keeper with an ordinary wax-press cannot get very much over three pounds, but there is over four pounds there—but figuring on what he gets, that is 90 cents, that two-storey hive contains \$1.80 worth of beeswax, and it does not pay to throw it away, because any one who is worthy of the name of bee-keeper will take care of that and see that it is not robbed out.

In the eradication of bee diseases we must look to the method of treatment

which the su-keeper can use. to get a meth- can use, beca- come when all- tinue to keep b- come when bee- out about fifty- ers in the Uni-

Mr. Byer—Ju- what—Mr. Tayl- whether the sup- ed out. He say- not have transm- had not been wa- positively that w- over a foul broo- it, they will tra-

Dr. Bohrer—In- Dr. Phillips has- all attention to- not been named- protection you pe- the way of legisla- what the differen- own have in the- I do know this,

intend to formula- come providing tl- of the different co- colonies of bees to- house or barn whe- allow men to ke- ordinary box hives- them to do it I- inspector can do h- we are going to st- stamped out. In- ions of the count- that all trees conti- nt down and the- no need legislation- to remain in houses- outbuildings and bei- logs. I make th- bee-keepers consider- Mr. McEvoy—We- let whereby we can- changed into frame I- diseased.

which the successful and careful bee-keeper can use. There is no use in trying to get a method which all bee-keepers can use, because the time is going to come when all bee-keepers cannot continue to keep bees. The time is going to come when bee diseases are going to wipe out about fifty per cent. of the bee-keepers in the United States.

Mr. Byer—Just a word in regard to what Mr. Taylor has said in criticizing whether the super combs should be washed out. He says he thinks they would not have transmitted the disease if they had not been washed out. I do not know positively that when you put super combs over a foul brood colony that never had it, they will transmit the disease.

Dr. Bohrer—In connection with what Mr. Phillips has said, I would like to call attention to another matter that has not been named. I don't know what protection you people have in Canada in the way of legislation, and I don't know what the different states outside of my own have in the way of legislation, but I do know this, it is very defective. I intend to formulate a bill on my return home providing that the Bee Inspectors of the different counties shall not permit colonies of bees to remain in any man's house or barn when known, and shall not allow men to keep bees in boxes or ordinary box hives. As long as you allow them to do it I do not see how an inspector can do his duty, nor see how we are going to stamp it out and keep it stamped out. In heavily-timbered sections of the country you may provide that all trees containing bees may be cut down and the bees taken out. We need legislation against allowing bees to remain in houses and barns and other outbuildings and being kept in box hives and logs. I make the suggestion that all bee-keepers consider this.

Mr. McEvoy—We have a clause in our act whereby we can order all box hives changed into frame hives where they are diseased.

Dr. Bohrer—How about bees in houses or trees?

Mr. McEvoy—We have nothing to do with the trees; I suppose we could, though.

Mr. Lewis—I would like to ask what we would do in that case, after we have ordered all the bees to be put into frame hives, when the people will let hundreds of these common farmer bee-keepers build combs crossways of those frames.

Mr. McEvoy—They can transfer them all the same.

Mr. Richardson—I would like to ask about this treatment of Mr. Taylor's in changing to the new hive when disturbing that diseased swarm and they would fill up with the diseased honey, wouldn't they carry the disease into the new swarm?

Mr. Taylor—They may carry some, but they get rid of it before they get comb built to store it in.

Mr. Richardson—They would use some of that diseased honey to build some of that comb?

Mr. Taylor—No.

Mr. Friess—A gentleman over here has spoken about washing his combs out. Why couldn't the bees in increasing their brood below carry that honey from below and put it above, and would it be safe to use that?

Mr. Taylor—I don't think there is any danger in that.

Mr. Friess—Don't you think the honey from below would contain these germs after being carried above?

Mr. Taylor—I don't think they carry any above. The conclusion I have come to is that combs which never have had foul brood in are safe to use.

Mr. Friess—Does not the good honey below become infected by the foul brood honey?

Mr. Taylor—No; it is because they store honey in cells that have the dead brood in.

Mr. Friess—Will they remove that up above?

Mr. McEvoy—Yes; sometimes.

Mr. Newton—I have not been so much interested in the work of foul brood until the last year. As I have been passing around from yard to yard I have seen that people have been too lenient altogether. They want to save these few combs. It is the thought of saving these top combs that are over diseased colonies. I wouldn't advise anybody to do that. I think we should be very much afraid of it.

Mr. McEvoy—Johnnie, would you destroy the combs over a diseased colony?

Mr. Newton—Yes, I am so much afraid of it.

Mr. McEvoy—You are dead wrong. (Laughter).

Mr. Newton—In the past season I have found people who have used these old combs, thinking they were safe, and the disease has broken out again. Wouldn't it have been better if they had resolved in the first place to cure and get rid of the old combs? Mr. McEvoy and myself and many experienced bee-keepers might save the old combs to advantage, knowing what we were doing, but when you come to the inexperienced bee-keeper, and he does not know the combs as well, and he uses combs which he thinks are all right in his own judgment, but when the season comes on in a good many cases the disease will appear again, and for the sake of others I say do not use any old combs or anything in connection with hives that have been diseased.

Mr. Manwaring—We have been told by Mr. Taylor and others that it is safe to use hives in which foul brood has been found. I would like to know whether that is the universal belief, or whether there is any exception to that. I understand from Mr. Taylor that all that is necessary is to clean out an old hive and you can use it again.

Mr. Taylor—I can't tell what the general belief is, but that is the belief in my house.

Mr. Pressler—We have enough men

here who have tried it and know it.

Mr. McEvoy—In my thirty-three years' experience I never had a case of foul brood develop in an old hive, and I never disinfected an old hive.

Mr. France—I am not as old as Brother McEvoy across the water, but I have put in twelve years of inspecting and treating diseased bees. In the first year I boiled the hives, and if ever I saw anything that was sickening to a bee-keeper it was a lot of boiled hives; they were all warped out of shape and I found they were no use, and in later years no hives have been boiled or burned, and they are all in use to-day.

Mr. Holtermann—I am not going to say it is necessary to disinfect hives. Mr. S. D. House, of Camillus, New York, stated to me distinctly that his father attributed a second break-out of foul brood to the fact that the hives had not been disinfected. I want to say Mr. House had no conclusive evidence that the reason was because the hives were not disinfected. If we are going to learn we must be open to reason, we must judge wisely and be unprejudiced. On the other hand, I want to make the assertion that because hives have been used for many years and not disinfected does not prove that the disease may not have been transmitted in that way. We know where colonies are treated for foul brood the disease does break out occasionally the second time, and the man who believes that combs do not need to be disinfected and can be used the second time will say that that was not the reason why the disease broke out, but it was on account of some other cause. At the same time, I want to say he does not know. Where the disease does break out occasionally the second time—and every inspector and every one posted in this line knows it does—he does not know that it may not be because the hive was not disinfected. I think Dr. White and Dr. Phillips are men who should be able to speak with authority

upon the cause they can follow it. A bee-keeper can see it is not necessary to lie upon it is necessary to be infectant, and believe it is wis disinfecting hi to do it.

Mr. Taylor—hives at all, p sene in it on a match to it, a scorched inside will put your to the bacteri about that.

Mr. Darby— point that I wa are cases when that the hive sh of us have to different classes do work properl do it properly, are careless that with whom th Sometimes I fin and sometimes ri ing them the pa as to drop the h the bottom-board the cover. The keepers. You ai people in this a there are people States, and I pr are not careful, a gent on this line, on others. Wha these hives? Tak bees into them? said, in those case lect the hive, but the hive with gas match, and the w minutes. All the l the honey, all the t

upon the subject of boiling hives, because they are bacteriologists and they can follow it up in a practical way. The bee-keeper cannot. To disinfect a hive it is not necessary to boil it. The germ may lie upon the surface, and all that is necessary is to wash it with some disinfectant, and that is the reason why I believe it wise for a person to advocate disinfecting hives. It costs so very little to do it.

Mr. Taylor—If you want to disinfect hives at all, put a little straw and kerosene in it on a pile of hives and touch a match to it, and when it is sufficiently scorched inside put on a cover and that will put your fire out. Fire will attend to the bacteria, you needn't be afraid about that.

Mr. Darby—Mr. Taylor just made the point that I was going to drive at. There are cases when I think it is necessary that the hive should be disinfected. Some of us have to deal with bee-keepers, different classes of them, some who will do work properly and some who will not do it properly, and it is with those that are careless that we have got to deal and with whom the most trouble comes. Sometimes I find combs built crosswise and sometimes run together, and in treating them the parties will be so careless as to drop the honey in the hive and on the bottom-board and on the side and on the cover. These are not careful bee-keepers. You are talking to intelligent people in this audience, but remember there are people all over the United States, and I presume in Canada, who are not careful, and who are not intelligent on this line, although they may be on others. What should we do with these hives? Take them and put other bees into them? As Mr. Taylor has just said, in those cases I tell them to disinfect the hive, but my method is to paint the hive with gasoline and then apply a match, and the work is done in a few minutes. All the burr comb in there, all the honey, all the glue, will catch it, and

these diseased germs will instantly be burned up. I think we should bear in mind that there are a great number of people who will read this report who are not as familiar with handling hives as we are here, and we should consider this matter and let these reports go out so that it is clear enough to all minds how this subject should be treated. Do not take chances. (Applause.)

Mr. Cavanagh—I don't feel quite satisfied in regard to this hive disinfection. There certainly is a possibility of infection in those hives. We will suppose a small portion of that diseased brood were simply on the inside of that hive, and that hive afterwards had some honey spilled on it and the bees cleaned it up, why wouldn't that condition be exactly the same as if the bees cleaned the honey out of the diseased cells that have that scale dried in it. While it is very easy to disinfect those hives and make them perfectly safe, that danger might exist if they were not disinfected.

Mr. Covyou—As to the possibility of spreading the disease, I think the bottom-board is the only possible place where these spores might fall and be covered up. In a year or so, if you should disturb them in scraping your bottom-boards, it might possibly affect the bees.

Mr. McEvoy—A gentleman over here spoke of some honey being spilled or dropped in the hives. What is the difference whether the bees have it in their sacks or clean it up there a short time afterwards?

Speaking of painting hives, I would want to paint the feet of the bees; one is as necessary as the other. When it breaks out again, it is something like the old lady with her hens,—they were off the eggs and on the straw.

Mr. France—I am sorry to see we are trying to save too much infection for fear we will lose a little something. I don't consider an infected colony of bees worth very much. All they are worth is the wax. I do thank Dr. Phillips for

bringing out the point that from a commercial point of view we are foolish to stand in our own light and try in some kind of way to save an old infected comb. For nine years I have carried with me as an inspector, free of charge, over our State, where the bee-keepers did not have facilities to save the wax, a wax extractor, and the old combs melted into wax almost in actual value paid for the foundation, and those new combs put on were worth much more than the old ones. In that way the bee-keeper got rid of the old combs, the drone combs, and he had new clean combs, which gave more ambition and vigor to the bees. Then, why are we dabbling over these when we could dispose of them and make a clean sweep of them?

Mrs. Robertson—How long, in the name of science, do these foul brood germs live? Foréver?

Dr. Phillips—Dr. Maassen, in Germany, had foul brood twenty years old, and he had no trouble in getting germs from it.

SIDE LIGHT ON MARKETING

The following is the address given by Mr. A. C. Miller, of Providence, R. I., at the last meeting of the O.B.K.A.:

I don't know that I can present anything new to you in regard to marketing honey. You seem to have been remarkably successful at it here, from what I can find out. In the States we have a condition which does not seem to be quite so favorable as yours. Now that we have the National Pure Food Law, and most of the States have their own Pure Food Laws, it is helping us a great deal, and we are getting rid of the competition of artificial and fed honeys, but we still have much to learn about the handling of honey and the marketing of it, and I will try to show you some of the things we have run up against.

Fortunately, the phraseology of the act is the same on both sides of the line, so that I shall not have to look out and

watch myself on that, or else it would be very much like the young man who had promised to take his sweetheart somewhere, and when the time came he found he had lost his money on a horse race, and he explained, "The horse I backed led the way half-way around, and then turned and started for the starting-post," to which she replied, "But, my dear, why didn't you back him both ways?"

I have brought some samples of honey with me, and I have here also a hive which I have used for the study of the life history of the bee.

It is said that the man is the farthest from market who has nothing to sell, or, in other words, has nothing saleable, and I find that applies very well to many producers of honey. They have honey which is not readily saleable; it is poor quality; it has got pollen in it; it is overheated, scorched, and a lot of those things. The production of honey is relatively easy if you do not consider the cost or quality. Mostly anybody can keep a box of bees and get honey out of it, but when you come to produce the best quality of honey at the lowest cost, so that you can compete with other sweets, you have got a different proposition.

The people are using more sugar to-day than ever in the history of the world, and various confections are competing very sharply with the use of honey. Some people do not care for honey when they can get other things, and unless such people have a particular liking for honey, it is often very difficult to get them to use it, and in trying to develop that market you find a great deal of expense; it is slow, and sometimes you think it is hopeless to try. But, with

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your honey produced, you have got to dispose of it. You have comb honey. The first thing you have to consider is the grading. One large New York producer sets up on his bench in front of his various helpers samples of different grades of honey. He takes a comb of what he considers fancy honey. He puts one such comb in front of each operator, and he says, "When you are in doubt, compare it with that; when it compares closely with that, grade it as fancy; if it does not, do not put it in the fancy grade under any consideration. He can do that very well, because he has found his crop, as it is with the honey here, is all from one source, all from clover, or all from linden, or all from buckwheat. Now, with the small producer, he tries to make up a few grades of honey; he picks out all the handsome white boxes,

and they go to the market and are sold. A customer comes into the store and takes a box of that honey and his family like it, and he goes in the next week and says, "I want another box." He gets a box out of the same crate, but the family do not like it at all; it has a different flavor, and that man does not understand. It is a slow process to get the public to understand that honey varies. If you are sending your honey to market, I believe it is absolutely essential to put only the same kind of honey into the same case for shipment. If you have got varied kinds of honey, either sell it at home or in such a way that people are going to understand that they are different flavors.

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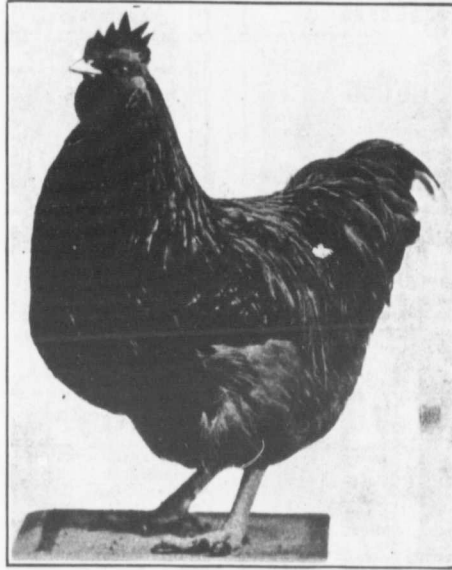
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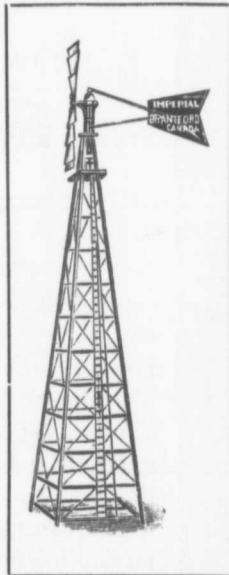
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